

360iResearch

Submarine Communication Cable System Market

Global Forecast 2026-2032

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1. Preface

1.1. Objectives of the Study

- Which included equipment, software, landing works, and services does each buyer procure, and how does purchasing responsibility differ from the connectivity application served?
- What evidence establishes supplier and contractor qualification for the relevant system, buyer sector, operating context, and lifecycle stage?
- Under Open Cable Interfaces and Closed Vendor-Specific Interfaces, what compatibility, contractual, and support conditions determine whether a buyer can credibly change terminal suppliers or upgrade an existing system?
- How do Supplier-Led Turnkey Delivery and Owner-Led Disaggregated Delivery differ in the allocation of procurement, integration, acceptance, and lifecycle-support responsibilities?
- Which landing-access, environmental, ownership, and security requirements must be verified before a supplier or buyer commits to a project or contracting arrangement?
- How do procurement needs and supplier responsibilities differ across new development, upgrades, preventive maintenance, fault repair, and decommissioning?
- What documented commercial status and responsibility boundaries distinguish the included fiber-core, repeater, and sensing categories, without assuming equivalent maturity or supplier capability?
- Which commercial boundaries make standalone offerings and bundled system delivery comparable, and how should independent segmentation axes be interpreted without treating them as additive activity?

1.2. Market Definition

The Submarine Communication Cable System market covers the commercial provision of submarine optical communication systems and the included offerings that support their development, delivery, operation, upgrade, repair, and recovery. The geographic boundary is Global, with Shallow-Water Deployment and Deep-Water Deployment both included. Coverage is not limited to intercontinental systems.

The offering boundary includes Equipment and Components, Software, Landing Infrastructure Works, Professional and Integration Services, Marine Services, and Operational Support Services. Separately supplied Submarine Optical Fiber and other included components remain within scope alongside complete systems. Included sensing equipment, integrated scientific sensor packages, and sensing software retain their distinct commercial roles within the submarine communication system context.

The buyer boundary comprises Telecommunications and Cable Network Operators; Cloud and Content Providers; Cable Landing and Colocation Operators; Civil Government and

Public-Service Institutions; Defense and Security Agencies; Research and Education Institutions; and Industrial and Commercial Enterprises. Connectivity applications describe the purposes served, while buyer sectors describe the organizations responsible for purchasing.

Unrelated upstream raw materials, power-transmission cables, unrelated terrestrial networks, and activities outside the included offering categories are adjacent rather than additional covered offerings. Downstream connectivity provision informs demand analysis but is not a separate offering category. Inclusion of a supplier's relevant component or service does not extend the study to every activity in that supplier's portfolio, nor does inclusion alone establish an additive monetary boundary.

1.3. Market Segmentation & Coverage

Product and Service Offering distinguishes commercial deliverables from the system characteristics used to classify them. Equipment and Components includes Submarine Optical Fiber; Submarine Communications Cables; Cable Joints and Passive Accessories; Repeaters and Optical Amplifiers; Branching Units; Terminal Transmission Equipment; Power-Feeding Equipment; and Supervision, Monitoring, and Sensing Equipment. The latter includes Transmission Supervision and Test Equipment, Fiber Sensing Equipment, and Integrated Scientific Sensor Packages. These categories preserve separate component and equipment roles rather than treating every purchase as a complete cable system.

Software includes Cable Planning and Marine Operations Software, Network Control and Management Software, and Sensing Data Processing and Analytics Software. Landing Infrastructure Works includes Landfall Civil Works and Cable Landing Station Construction and Fitout. Professional and Integration Services includes Feasibility and System Engineering; Environmental Assessment and Permitting; Procurement and Contract Advisory; Project Management and Owner Representation; Independent Quality Assurance; and System Integration and Commissioning. These groups distinguish software, physical works, and professional responsibility within system delivery.

Marine Services includes Marine Survey and Inspection; Cable Installation and Protection; Marine Maintenance and Repair; Cable Recovery and Removal; and Vessel Charter and Marine Support. Operational Support Services includes Cable Landing Hosting and Facility Operations; Network Monitoring and Technical Support; Equipment Maintenance and Repair; and Cable Logistics and Depot Services. Their commercial roles remain distinct from equipment supply, even when several categories appear within one delivery or support arrangement.

Repeater Architecture distinguishes Repeatered Systems from Repeaterless Systems, including Repeaterless Systems Without Submerged Amplifiers and ROPA-Assisted Repeaterless Systems. Terminal Interoperability distinguishes Open Cable Interfaces from Closed Vendor-Specific Interfaces. Optical Fiber Core Architecture distinguishes Single-Core Fiber from Multicore Fiber. Sensing Integration includes No Additional Sensing, Fiber-Based Sensing, Integrated Sensor Packages, and Combined Fiber and Sensor-Package Sensing. Together these axes establish the contexts for comparing supplier eligibility, integration responsibility, and switching requirements without presuming capability equivalence.

System Topology includes Point-to-Point, Star, Branched Star, Trunk and Branch, Festoon, Ring, and Branched Ring. Connectivity Application includes Telecommunications Backbone Connectivity; Cloud and Content Network Interconnection; Enterprise and Public-Service Connectivity; Offshore Operational Connectivity; Defense and Security Connectivity; Research and Education Connectivity; and Shared Multipurpose Connectivity. Topology describes system configuration as a commercial classification; application describes the connectivity purpose, including systems serving more than one purpose.

Buyer Sector includes Telecommunications and Cable Network Operators; Cloud and Content Providers; Cable Landing and Colocation Operators; Civil Government and Public-Service Institutions; Defense and Security Agencies; Research and Education Institutions; and Industrial and Commercial Enterprises. Procurement Model distinguishes Supplier-Led Turnkey Delivery from Owner-Led Disaggregated Delivery. Water Depth Class includes Shallow-Water Deployment and Deep-Water Deployment. These axes separate purchasing identity, delivery organization, and operating context.

Contracting Channel distinguishes Direct Asset-Owner Contracting from Intermediated Contracting. Project Lifecycle includes New System Development; System Upgrades and Life Extension; Operations and Preventive Maintenance; Fault Repair and Restoration; and Decommissioning and Recovery. Ownership Structure distinguishes Sole Ownership from Shared Ownership. Cable Protection Construction includes Lightweight Cable, Lightweight Protected Cable, Single-Armored Cable, Double-Armored Cable, and Rock-Armored Cable. These classifications support comparisons of commercial responsibility and applicable offering requirements; they are independent analytical lenses, not additive market opportunities.

Table 1. Global Submarine Communication Cable System Market Segmentation & Coverage

Segmentation	Coverage
Buyer Sector	• Cloud and Content Providers • Telecommunications and Cable Network Operators • Civil Government and Public-Service Institutions • Defense and Security Agencies • Industrial and Commercial Enterprises • Cable Landing and Colocation Operators • Research and Education Institutions
Cable Protection Construction	• Lightweight Cable • Single-Armored Cable • Double-Armored Cable • Lightweight Protected Cable • Rock-Armored Cable
Connectivity Application	• Cloud and Content Network Interconnection • Telecommunications Backbone Connectivity • Shared Multipurpose Connectivity • Enterprise and Public-Service Connectivity • Defense and Security Connectivity • Offshore Operational Connectivity • Research and Education Connectivity

Table 1 - continued

Segmentation	Coverage
Contracting Channel	• Direct Asset-Owner Contracting • Intermediated Contracting
Optical Fiber Core Architecture	• Single-Core Fiber • Multicore Fiber
Ownership Structure	• Shared Ownership • Sole Ownership
Procurement Model	• Supplier-Led Turnkey Delivery • Owner-Led Disaggregated Delivery
Product and Service Offering	• Equipment and Components o Submarine Communications Cables o Terminal Transmission Equipment o Repeaters and Optical Amplifiers o Power-Feeding Equipment o Supervision, Monitoring, and Sensing Equipment ▯ Transmission Supervision and Test Equipment ▯ Fiber Sensing Equipment ▯ Integrated Scientific Sensor Packages o Branching Units o Cable Joints and Passive Accessories o Submarine Optical Fiber • Marine Services o Cable Installation and Protection o Marine Maintenance and Repair o Vessel Charter and Marine Support o Marine Survey and Inspection o Cable Recovery and Removal • Operational Support Services o Cable Landing Hosting and Facility Operations o Equipment Maintenance and Repair o Network Monitoring and Technical Support o Cable Logistics and Depot Services • Professional and Integration Services o System Integration and Commissioning o Project Management and Owner Representation o Feasibility and System Engineering o Environmental Assessment and Permitting o Independent Quality Assurance o Procurement and Contract Advisory • Landing Infrastructure Works o Cable Landing Station Construction and Fitout o Landfall Civil Works • Software o Network Control and Management Software o Cable Planning and Marine Operations Software o Sensing Data Processing and Analytics Software

Table 1 - continued

Segmentation	Coverage
Project Lifecycle	• New System Development • Operations and Preventive Maintenance • System Upgrades and Life Extension • Fault Repair and Restoration • Decommissioning and Recovery
Repeater Architecture	• Repeatered Systems • Repeaterless Systems o Repeaterless Systems Without Submerged Amplifiers o ROPA-Assisted Repeaterless Systems
Sensing Integration	• No Additional Sensing • Fiber-Based Sensing • Integrated Sensor Packages • Combined Fiber and Sensor-Package Sensing
System Topology	• Point-to-Point • Trunk and Branch • Branched Star • Ring • Branched Ring • Star • Festoon
Terminal Interoperability	• Open Cable Interfaces • Closed Vendor-Specific Interfaces
Water Depth Class	• Deep-Water Deployment • Shallow-Water Deployment

Sources & Evidence

1. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1

· Taxonomy evidence: The executed March xx.xx 2012 supplemental agreement records separately priced charter access to the cable-maintenance vessel CS Cable Retriever through an annual hire arrangement. It supports commercial vessel access distinct from vessel capital acquisition, not current project-level expenditure or 2025 sales. ([sec.gov](https://www.sec.gov/Archives/edgar/data/xx.xx/xx.xx/d778621dex1091.htm))

· Taxonomy evidence: The agreement distinguishes the vessel-owning entity from the charterer and makes hire payments a separate contractual obligation. This supports a marine-capacity work package within the retained Marine Services context, subject to attribution and single-count allocation. ([sec.gov](https://www.sec.gov/Archives/edgar/data/xx.xx/xx.xx/d778621dex1091.htm))

2. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement

   · Taxonomy evidence: The cable-owner cooperative's submarine-cable service description identifies contractual depot storage of operational spares and separately listed storage rates. This establishes a commercial storage category; current renewal terms and prices are not established by the inspected description. ([acma2017.com](https://www.acma2017.com/services/submarine-cable-services/))

   · Taxonomy evidence: The description separates depot storage from maintenance-improvement work and fault repair, supporting storage as an identifiable operational-support function rather than treating every storage cost as physical cable restoration. ([acma2017.com](https://www.acma2017.com/services/submarine-cable-services/))

3. Society of American Military Engineers Awards NAVFAC EXWC 2019 Project of the Year

   · Taxonomy evidence: The Navy's May xx.xx 2019 account identifies a submarine fiber-optic project commissioned in March 2016 to connect Department of Defense information-network nodes. It establishes a defense telecommunications function, without proving exclusively military use or a current expenditure allocation. ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))

   · Taxonomy evidence: The account identifies NAVFAC coordination on behalf of the Defense Information Systems Agency across the cable project. This establishes an institutional commissioning role beyond merely carrying defense traffic, but does not disclose current agency purchasing obligations or contract-line values. ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))

   · Taxonomy evidence: The government project account expressly identifies the submarine fiber connection as a ring, providing an asset-specific example for the retained Ring topology rather than inferring topology from the agency's wider network. ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))

4. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Definitions xx.xx and xx.xx recognize marine-depot or shipboard storage of submarine repeaters, branching-unit spares, and spare cable. This supports the retained depot-service function within communications-asset support, but the standard does not establish prices or a separately awarded storage contract. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
   - Taxonomy evidence: Defines distinct submerged and terminal equipment elements of optical submarine systems.
   - Taxonomy evidence: Recognizes repeatered and repeaterless submarine communications cable constructions.
   - Taxonomy evidence: Recognizes optical submarine repeaters and amplification elements.
   - Taxonomy evidence: Defines branching units, including optical add/drop variants.
   - Taxonomy evidence: Defines terminal transmission equipment as a system element.
   - Taxonomy evidence: Recognizes power-feeding equipment and cable-system power functions.
   - Taxonomy evidence: Terms xx.xx-xx.xx distinguish shallow water by a marine-activity risk limit and deep water beyond it. Approximately xx.xx meters is indicative, not a universally fixed transition. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
   - Taxonomy evidence: Recognizes shallow water as depths down to the specified marine-activity risk limit. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
   - Taxonomy evidence: Recognizes deep water as depths exceeding the shallow-water limit. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
   - Taxonomy evidence: Defines routine maintenance as continuing monitoring and preventive supervision of the submarine system. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
   - Taxonomy evidence: Separately defines deep-sea and shallow-water repair of installed submarine cable systems. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
5. ITU-T G.654 (08/2024): Characteristics of a cut-off shifted single-mode optical fibre and cable
   - Taxonomy evidence: Distinguishes optical-fiber attributes from delivered cable attributes and identifies submarine systems among the intended applications. Only dedicated submarine-use purchases fall within the proposed offering.
6. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes repeaterless submarine systems and their remotely optically pumped amplification variants.
   - Taxonomy evidence: Provides the established repeaterless-system classification, including ROPA-assisted applications.
   - Taxonomy evidence: Distinguishes repeaterless configurations without ROPA from configurations using submerged remote optical amplification.
   - Taxonomy evidence: Treats ROPA as part of repeaterless submarine systems rather than electrically powered repeatered systems.
   - Taxonomy evidence: Identifies remote optical amplifiers as recognized submarine-system components.

7. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   - Taxonomy evidence: Addresses repeatered optical submarine systems and their wet-plant and terminal interfaces.
   - Taxonomy evidence: Establishes interoperable interfaces supporting terminal equipment supplied independently of the submerged-plant vendor.
   - Taxonomy evidence: Partial transverse compatibility permits an independent terminal vendor while both terminal ends of a link may still use the same manufacturer.
8. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes maintenance controllers and submarine-system monitoring equipment.
   - Taxonomy evidence: Separates transmission-performance supervision, fault location, and electrical monitoring functions.
   - Taxonomy evidence: Describes computer-based supervision and interfaces to network management. This supports the function, not separately priced software licenses.
   - Taxonomy evidence: Establishes ongoing system supervision and remote-maintenance functions as distinct from physical cable repair.
   - Taxonomy evidence: Transmission supervision and sensing-subsystem monitoring are separately described; ordinary transmission supervision alone does not establish additional sensing.
9. ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
   - Taxonomy evidence: Defines a scientific sensor subsystem additional to telecommunications functions.
   - Taxonomy evidence: Recognizes sensor sets integrated with telecommunications-capable submarine assets.
   - Taxonomy evidence: Recognizes dedicated scientific sensor packages and associated terminal equipment.
   - Taxonomy evidence: Recognizes fiber-based sensing using dedicated land-station equipment.
   - Taxonomy evidence: Specifies receiving, storing, and forwarding sensor data at land stations; separately purchased analytics software is not established by the standard alone.
10. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
    - Taxonomy evidence: The current topology section explicitly lists seven submarine optical-network configurations.
    - Taxonomy evidence: Lists point-to-point as a distinct topology.
    - Taxonomy evidence: Lists star as a distinct topology.
    - Taxonomy evidence: Lists branched star separately from star.
    - Taxonomy evidence: Lists trunk and branch as a distinct topology.
    - Taxonomy evidence: Lists festoon as a distinct topology.
    - Taxonomy evidence: Lists ring as a distinct topology.
    - Taxonomy evidence: Lists branched ring separately from ring.
    - Taxonomy evidence: Lists longitudinal and transverse compatibility configurations separately. Longitudinal compatibility alone does not establish contractual vendor closure.
    - Taxonomy evidence: Recognizes cable joints as submarine-system elements.
11. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
    - Taxonomy evidence: Describes a direct link between two terminal stations.
    - Taxonomy evidence: Describes separate cable links from a main terminal station.
    - Taxonomy evidence: Distinguishes underwater fan-out from independent shore-based star spokes.
    - Taxonomy evidence: Describes terminal branches connected to a common trunk.
    - Taxonomy evidence: Describes successive links between coastal landing points.
    - Taxonomy evidence: Describes a closed arrangement of connected point-to-point links.
    - Taxonomy evidence: Distinguishes a ring with underwater branching units.

12. Table of contents - ITU-T G.971 (12/2024): General features of optical fibre submarine cable systems
    - Taxonomy evidence: Recognizes system installation as an implementation activity.
    - Taxonomy evidence: Recognizes maintenance separately from installation and commissioning.
    - Taxonomy evidence: Recognizes system commissioning as a distinct implementation activity.
13. Resolução do Conselho de Ministros n.º 18/2023, de 13 de fevereiro
    - Taxonomy evidence: Authorizes separate Atlantic CAM purchases for system construction, works supervision, transmission equipment, and landing-station rental, supporting deliverable-based allocation.
    - Taxonomy evidence: Transmission equipment is procured separately from the main construction contract.
    - Taxonomy evidence: Works supervision is authorized as a separate service contract.
    - Taxonomy evidence: Landing-station rental is an expressly identified commercial purchase, distinct from transmission-capacity resale.
14. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
    - Taxonomy evidence: Procurement descriptions separately identify landing-station foundations and beach-manhole-to-station works. Some historical entries are canceled and do not establish completed construction.
    - Taxonomy evidence: Identifies dedicated civil connections between beach manholes and landing stations.
    - Taxonomy evidence: Identifies landing-station construction and dedicated station power infrastructure.
    - Taxonomy evidence: Lists specialist optical test equipment as a cable-system purchase.
    - Taxonomy evidence: Lists submarine equipment upgrade and repair as a signed procurement activity.
    - Taxonomy evidence: Separately identifies commissioning support and terminal-equipment relocation work.
    - Taxonomy evidence: Recognizes an overall cable-project manager as a distinct consulting purchase.
15. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
    - Taxonomy evidence: Distinguishes environmental assessment from field route surveying.
    - Taxonomy evidence: Recognizes marine field surveys supporting submarine telecommunications routes.
    - Taxonomy evidence: Recognizes cable installation and protective burial as distinct cable activities.
    - Taxonomy evidence: Recognizes decommissioning through active cable removal, separately from material resale.
    - Taxonomy evidence: Distinguishes sensing using existing telecommunications fibers from purpose-built SMART sensor integration.
    - Taxonomy evidence: Recognizes SMART cables providing sensing alongside telecommunications.
16. ICPC Membership Agreement - Issue 11
    - Taxonomy evidence: Defines a maintenance authority through contracted accountability for the marine cable portion.
    - Taxonomy evidence: Defines cable recovery participation through contracted recovery work and recovery-vessel activity.
    - Taxonomy evidence: Defines a route-survey company by contracted marine survey work preceding installation.

17. Disaggregated System Supply - Pioneer Consulting
    - Taxonomy evidence: Separately describes system engineering, procurement formation, permitting oversight, project management, and implementation work.
    - Taxonomy evidence: Identifies wet-plant engineering and analytical route-engineering assignments.
    - Taxonomy evidence: Identifies permitting oversight within separately assembled submarine-system delivery.
    - Taxonomy evidence: Identifies end-to-end system implementation as a service distinct from individual equipment purchases.
    - Taxonomy evidence: Contrasts single-supplier turnkey contracting with disaggregated procurement in which system components are sourced separately. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
    - Taxonomy evidence: Recognizes single-supplier turnkey contracting as the alternative to disaggregated system supply. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
    - Taxonomy evidence: Describes client-supported selection and separate contracting of system components under disaggregated procurement. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
18. Procurement - Pioneer Consulting
    - Taxonomy evidence: Describes submarine-system bid evaluation, supplier selection, commercial negotiation, and contract formation as advisory deliverables.
19. Project Management - Pioneer Consulting
    - Taxonomy evidence: Describes cable-project coordination, shipboard owner representation, schedule integration, and commercial milestone oversight.
    - Taxonomy evidence: Separately identifies product-assurance oversight, quality-plan review, and acceptance representation.
20. Inside Petal: Building the World’s First Petabit-Class Transoceanic Subsea Cable - Engineering at Meta
    - Taxonomy evidence: The buyer contrasts conventional one-core transmission fiber with the announced two-core Petal cable architecture.
    - Taxonomy evidence: Explicitly identifies one-core fiber separately from two-core fiber; core count is not fiber-pair count.
    - Taxonomy evidence: Identifies multicore fiber in a named commercial submarine-system program. This announcement does not establish 2025 sales or an operational deployment.
21. Announcing Petal, a First-of-its-Kind Transoceanic Subsea Cable - Meta
    - Taxonomy evidence: The September 2026 buyer announcement specifies multicore fiber and expected service in 2029, distinguishing announced commercial development from an operating asset.
22. Southern Cross Cables Limited - DigitalMarine deployment update at Nedonna
    - Taxonomy evidence: The asset buyer reports live deployment of a fiber-based subsea monitoring service at its Nedonna landing, establishing commercial use rather than a research-only demonstration.
    - Taxonomy evidence: The buyer describes monitoring alerts used by operating staff, supporting contracted monitoring as an operational deliverable.
23. IP e ASN assinam contrato para construção de Novo Anel CAM - Infraestruturas de Portugal
    - Taxonomy evidence: The project owner describes contracted Atlantic CAM telecommunications infrastructure with an integrated scientific-monitoring component.
    - Taxonomy evidence: The project owner explicitly specifies a ring topology for the contracted replacement cable system.
24. MakaiPlan - Makai Ocean Engineering
    - Taxonomy evidence: Markets dedicated submarine-cable route-planning software, corroborating a software deliverable distinct from engineering labor or cable equipment.
25. ORE Seminar: Makai Ocean Engineering: An update on current projects - University of Hawai‘i at Mānoa
    - Taxonomy evidence: The university’s April 2026 seminar record describes proprietary planning and cable-installation software used for telecommunications cables. The description originates with the presenting supplier and is not independent market-share evidence.

26. DigitalMarine - FiberSense
    - Taxonomy evidence: Offers recurring subsea monitoring with network-operations support, establishing a managed-service format rather than proving separately sold analytics licenses.
27. Consultation Paper No. 15/2022: Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India - TRAI
    - Taxonomy evidence: The regulator distinguishes cable installation, maintenance, repair, and landing-party activities. Its historical consultation is used for category recognition, not as a statement of current licensing requirements.
    - Taxonomy evidence: Identifies environmental and coastal clearances as separable cable-project concerns.
    - Taxonomy evidence: Identifies vessel access and equipment-import support around cable maintenance. This corroborates support functions but does not establish separately priced charter or depot contracts.
28. Celebrating the completion of the most advanced subsea cable across the Atlantic - Microsoft
    - Taxonomy evidence: The cable-system buyer describes MAREA interoperability with different networking equipment and associated upgrade flexibility.
29. Building the Caribbean digital economy bit by bit
    - Taxonomy evidence: The January xx.xx 2019 project account distinguishes public broadband, government networks, and educational connectivity within a program that included construction of a submarine cable. These are observed demand purposes, not reported application-market shares. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
    - Taxonomy evidence: The account describes submarine fiber connectivity as enabling modern telecommunications and affordable internet services for previously underserved communities. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
    - Taxonomy evidence: Governments contracted new government wide-area networks alongside the submarine cable, and the account identifies government offices and health clinics among the connectivity needs. It does not disclose dedicated submarine fiber assignments or cable-only organizational expenditure. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
    - Taxonomy evidence: The account identifies governments as contract signatories and distinguishes them from the telecommunications contractor delivering the infrastructure. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
    - Taxonomy evidence: Three governments signed infrastructure contracts that included a new submarine cable and civil government networks, establishing a public commissioning role rather than participation inferred solely from government traffic. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))

30. Announcing the Grace Hopper subsea cable, linking the U.S., U.K. and Spain

- Taxonomy evidence: The July xx.xx 2020 announcement identifies a submarine cable commissioned to strengthen the network supporting Google's consumer and enterprise digital products. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))
- Taxonomy evidence: Google states that Grace Hopper would support services including Google Cloud and integrate a cloud region into its global infrastructure, establishing a cloud/content production-network purpose. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))
- Taxonomy evidence: Google reports that a cable construction contract had been signed with a system supplier, distinguishing the commissioning digital-service business from its equipment and installation contractor. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))
- Taxonomy evidence: The announcement documents Google commissioning a private submarine cable for its own digital-service network; it is evidence of a cloud/content buyer role, not merely capacity consumption. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))

31. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

- Taxonomy evidence: The May xx.xx 2014 announcement describes construction of a subsea optical-fiber system serving offshore LNG facilities with data and voice communications throughout their operations. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))
- Taxonomy evidence: The announced system served offshore industrial communications while also providing an alternative backhaul path supporting land-based voice and data services. This documents multiple intended functions within one cable system, without establishing their expenditure allocation. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))
- Taxonomy evidence: The announcement separates industrial construction sponsors from the communications business that would build, own, and operate the cable, supporting identification of participating economic purchasing roles. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))
- Taxonomy evidence: Nextgen Group was identified as the business responsible for building, owning, and operating the commissioned subsea communications system. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))
- Taxonomy evidence: The offshore energy projects were announced as contributors to cable construction, establishing industrial infrastructure sponsorship beyond the purchase of ongoing bandwidth services. The announcement does not establish participation by every industrial or commercial sector. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

32. Scarborough switches on for start-up

- Taxonomy evidence: Woodside's April xx.xx 2026 account reports fiber connectivity between its offshore production facility and headquarters, supporting remote operations, operational data transfer, and workforce communications. Only attributable telecommunications scope is relevant; the industrial power/control umbilical is outside the frozen boundary. ([woodside.com](https://www.woodside.com/media-centre/news-stories/story/scarborough-switches-on-for-start-up))
- Taxonomy evidence: The account identifies an industrial asset owner implementing offshore communications infrastructure within its project. The reported 2026 connection is not evidence of completed 2025 delivery or a separately disclosed cable-system expenditure amount. ([woodside.com](https://www.woodside.com/media-centre/news-stories/story/scarborough-switches-on-for-start-up))

33. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services

- Taxonomy evidence: The July xx.xx 2024 procurement notice identifies cable-landing-station access and colocation as purchases supporting a research-and-education network project, establishing an attributable institutional connectivity function within the broader landing-hosting boundary. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
- Taxonomy evidence: The notice states that landing-station colocation supports the university's NSF-funded research network and direct interconnection with research-and-education networks. This is procurement of attributable landing infrastructure services, not evidence used to include excluded capacity leases. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
- Taxonomy evidence: The university is identified as the purchasing institution, while the cable-system business is identified as the intended supplier, separating buyer mandate from contractor identity. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
- Taxonomy evidence: The public procurement notice establishes a university commissioning cable-specific landing-station access and equipment colocation for its research-and-education mission. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))

34. Meld. St. 26 (2023-2024)

- Taxonomy evidence: The government publication identifies submarine connectivity supporting residents, businesses, research, higher education, public administration, and emergency preparedness, documenting distinct purposes sharing a telecommunications asset. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
- Taxonomy evidence: The publication states that subsea fiber cables support public electronic communications alongside institutional and business requirements, providing an example of broad telecommunications-backbone demand. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
- Taxonomy evidence: Civil public-sector users and airport traffic management are identified as communications users of the submarine cable connection. Their use does not establish dedicated fiber assignments or that they bought the cable itself. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
- Taxonomy evidence: The same cable connection serves public communications, satellite-station data, public-sector functions, and airport traffic management. These observed functions support recognition of multipurpose infrastructure but do not establish a monetary allocation among applications. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
- Taxonomy evidence: The government identifies Space Norway as the owner and operator of the submarine fiber cables, establishing the cable-network operating role separately from the institutions using the connection. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

35. Meld. St. 9 (2024-2025)

· Taxonomy evidence: The government white paper states that a planned fiber-optic connection would transmit data for both civilian and military needs. It establishes an intended military communications function, not a defense-only asset, completed deployment, or agency-specific purchase allocation. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3082364/?ch=xx.xx))

· Taxonomy evidence: The planned submarine connection is expressly described as serving both civilian and military data-transmission requirements, supporting recognition of deliberately combined functions at the asset level. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3082364/?ch=xx.xx))

36. Subsea telecommunications cables: resilience and crisis preparedness

· Taxonomy evidence: The parliamentary report separately discusses secure cables used for military and intelligence communications, drawing on public testimony about those systems. This supports a distinct communications purpose without disclosing operational details or procurement expenditure. ([publications.parliament.uk](https://publications.parliament.uk/pa/jt5901/jtselect/jtnatsec/xx.xx/report.html))

· Taxonomy evidence: The report describes military and intelligence communications systems operated by the state, supporting an institutional defense/security role. It does not identify the contracting agency or establish a specific ultimate-buyer procurement transaction. ([publications.parliament.uk](https://publications.parliament.uk/pa/jt5901/jtselect/jtnatsec/xx.xx/report.html))

37. Antarctic Subsea Science and Telecommunications Cable

· Taxonomy evidence: The science agency is exploring a telecommunications-capable submarine connection linking a research station with research-and-education networks, with scientific sensing integrated into the proposed cable. The page describes feasibility and information gathering, not completed commercial system delivery. ([nsf.gov](https://www.nsf.gov/od/opp/ant/antarctic-subsea-cable))

· Taxonomy evidence: The proposed project is sponsored by science-program and cyberinfrastructure offices, illustrating the research-institution mandate distinct from general civil administration. The information request does not establish a construction award or delivered sales. ([nsf.gov](https://www.nsf.gov/od/opp/ant/antarctic-subsea-cable))

38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project

· Taxonomy evidence: The February xx.xx 2025 municipal announcement describes a carrier-neutral landing/data-center business expanding dedicated subsea landing infrastructure. This establishes a commissioning infrastructure-hosting role separate from the cable tenants and their traffic users. ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))

· Taxonomy evidence: The announced expansion concerns additional subsea cable landing bores and carrier-neutral landing-station infrastructure commissioned by the hosting business. The announcement is evidence of a dedicated landing-infrastructure buyer setting, not proof that the expansion had been completed. ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))

39. Crosslake Fibre

· Taxonomy evidence: The Crosslake Fibre case documents a disaggregated contracting approach, with the owner and its consultant selecting vendors and coordinating separately purchased project components. ([pioneerconsulting.com](https://www.pioneerconsulting.com/case_studies/crosslake-fibre-a-unique-submarine-cable-beneath-lake-ontario-connecting-toronto-to-buffalo/))

40. Work to start on East Micronesia Cable following contract signing

    · Taxonomy evidence: The June xx.xx 2023 government announcement records the project's management committee signing directly with the submarine-system supplier following a competitive tender. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

    · Taxonomy evidence: The commissioning project committee, rather than an independent supply intermediary, signed the East Micronesia Cable contract with NEC. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

    · Taxonomy evidence: The contracted project involves developing a new communications cable connection, including route work, cable manufacture, deployment and new landing infrastructure; the announcement is not a completion record. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean

    · Taxonomy evidence: The September xx.xx 2026 disclosure identifies SubCom, rather than a government or ultimate network owner, as the customer contracting Fugro's telecommunications-cable survey work. This is a specific intermediated transaction example. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))

42. Innovative Business Models for Expanding Fiber-Optic Networks and Closing the Access Gaps

    · Taxonomy evidence: The institutional business-model study distinguishes corporate submarine projects, consortium ownership arrangements and shared project vehicles, supporting ownership as a question separate from operation and financing. ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/xx.xx-xx.xx-xx.xx-2018-xx.xx-xx.xx-xx.xx-InnovativeBusinessModels.pdf))

    · Taxonomy evidence: Describes consortium members' ownership agreements and participation in construction and maintenance expenditure, and jointly held vehicles involving public and private stakeholders. ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/xx.xx-xx.xx-xx.xx-2018-xx.xx-xx.xx-xx.xx-InnovativeBusinessModels.pdf))

43. Delivering increased connectivity with our first private trans-Atlantic subsea cable

    · Taxonomy evidence: Google's July xx.xx 2018 announcement contrasts privately developed cable projects with consortium investments. It supports single-sponsor project context but does not establish complete current title to every associated asset. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

    · Taxonomy evidence: The same announcement explicitly describes partners forming a consortium to build a cable together, separately from purchasing transmission capacity. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

44. SUBCO

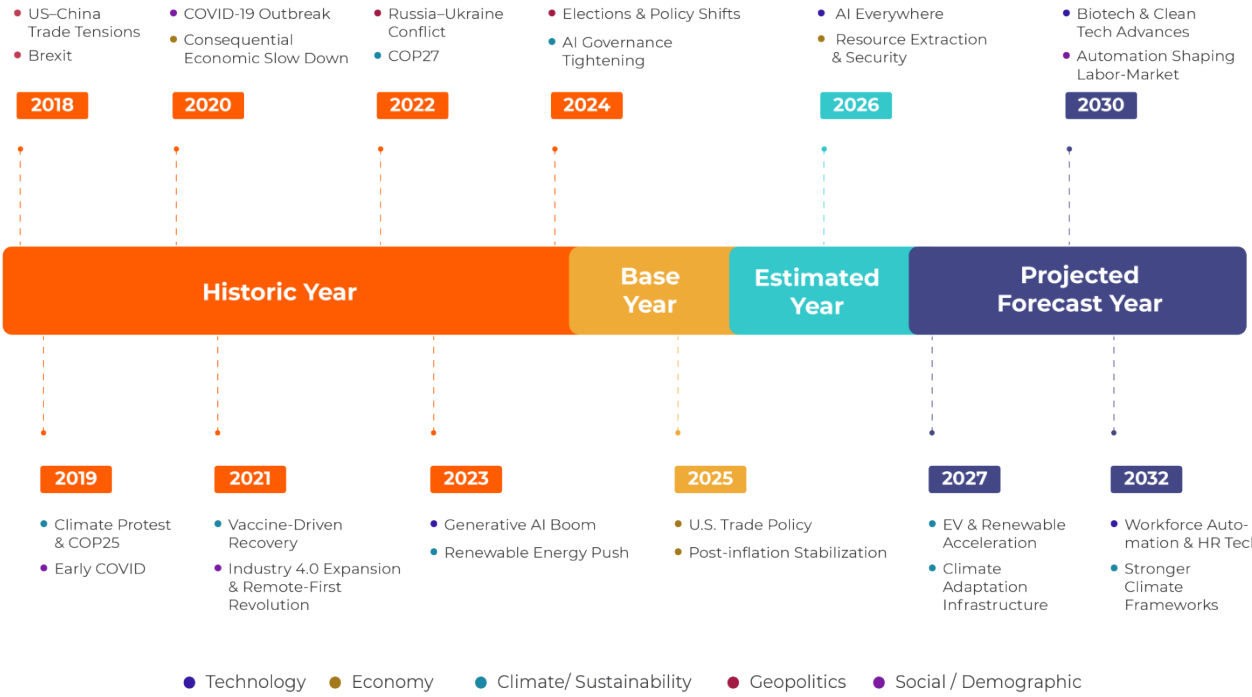
    · Taxonomy evidence: The government export-finance case documents additional equipment purchases to upgrade capacity on existing Indigo cable segments. This supports upgrade demand, separately from the excluded purchase of network capacity also discussed in the case. ([exportfinance.gov.au](https://www.exportfinance.gov.au/customer-stories/subco/))

45. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Taxonomy evidence: The August xx.xx 2025 operator announcement describes modernization and reconfiguration of the existing MAYA-xx.xx system with upgraded terminal equipment. Its expected completion date is not proof of completion or extension beyond original design life. ([libertynetworks.com](https://libertynetworks.com/news-and-events/liberty-networks-delivers-next-gen-subsea-connectivity-future-proof-region))
    - Taxonomy evidence: The operator separately announces removal and recovery of a retired portion of the existing trunk alongside the upgrade project, demonstrating a distinct retirement work scope. Recovered-material sales are outside the working revenue boundary. ([libertynetworks.com](https://libertynetworks.com/news-and-events/liberty-networks-delivers-next-gen-subsea-connectivity-future-proof-region))
46. Final Policy and Permit Guidance for Submarine Cable Projects
    - Taxonomy evidence: The guidance treats installation, operations, maintenance, repairs and removal as distinguishable submarine-cable project activities. Its jurisdiction is specified U.S. national marine sanctuaries, not all global deployments. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))
    - Taxonomy evidence: The guidance separately recognizes continuing cable operations, planned maintenance, routine inspections and monitoring over the project's life. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))
    - Taxonomy evidence: The guidance distinguishes emergency fault repairs from planned maintenance and routine monitoring. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))
    - Taxonomy evidence: The guidance recognizes end-of-project cable removal and associated financial responsibility, while allowing case-specific consideration of leaving cables in place. It does not establish universal recovery obligations. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Taxonomy evidence: Recognizes five submarine optical-cable protection classes: LW, LWP, SA, DA and RA. Their typical depth ranges overlap, so protection construction is not a substitute for water-depth classification. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    - Taxonomy evidence: LW identifies the separately recognized lightweight protection class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    - Taxonomy evidence: LWP identifies the separately recognized lightweight protected class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    - Taxonomy evidence: SA identifies the separately recognized single-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    - Taxonomy evidence: DA identifies the separately recognized double-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    - Taxonomy evidence: RA identifies the separately recognized rock-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

1.4. Years Considered for the Study

The study covers 2024 through the forecast horizon ending in 2032. The historical year is 2024, the base year is 2025, the estimated year is 2026, and the forecast endpoint is 2032. These roles distinguish historical observations from estimated and forward-looking interpretation.

Figure 1. Global Submarine Communication Cable System Market, Years Considered for the Study



1.5. Currency Considered for the Study

The reporting currency is the United States dollar (USD). Monetary market values use an absolute-value scale.

1.6. Language Considered for the Study

The study is published in American English.

1.7. Key Stakeholders

- Telecommunications and Cable Network Operators: assess system procurement, supplier qualification, terminal switching, ownership responsibilities, and lifecycle-support arrangements.
- Cloud and Content Providers: evaluate direct system participation and interconnection requirements, including delivery accountability and the relationship between ownership and purchasing authority.
- Cable Landing and Colocation Operators: evaluate landing works, station fitout, hosting, facility operations, and the contractual interfaces between system owners and facility providers.
- Civil Government and Public-Service Institutions: evaluate procurement eligibility, public-service connectivity requirements, permissions, and responsibilities associated with publicly commissioned infrastructure.

- Defense and Security Agencies: assess commercial supplier eligibility, contracting responsibilities, and support commitments for the included connectivity application.
- Research and Education Institutions: distinguish connectivity requirements from optional sensing functions and assess ownership, integration, and continuing-support obligations.
- Industrial and Commercial Enterprises: evaluate the procurement and support requirements of enterprise and offshore connectivity within the covered system contexts.
- Equipment and software suppliers: establish the relevance and commercial status of specific offerings, buyer qualification requirements, and the conditions for participation in turnkey or disaggregated delivery.
- Infrastructure, professional, marine, and operational service providers: assess package boundaries, integration interfaces, contracting access, and responsibility across system development and continuing operations.
- Permitting authorities and infrastructure-policy bodies: assess the jurisdiction-specific permissions and public-interest obligations associated with landing, deployment, ownership, and continuing operation.
- Investors, lenders, insurers, and commercial advisers: distinguish announced activity from committed and delivered projects, and evaluate ownership, contractual exposure, and the comparability of bundled commercial scopes.

2. Research Methodology

2.1. Introduction

The Submarine Communication Cable System study examines the commercial supply of systems and their included equipment, software, infrastructure works, and lifecycle services within a Global boundary. Its approach connects buyer requirements and delivery responsibilities to documented offerings and project activity, while keeping classification separate from proof of qualification or commercial success.

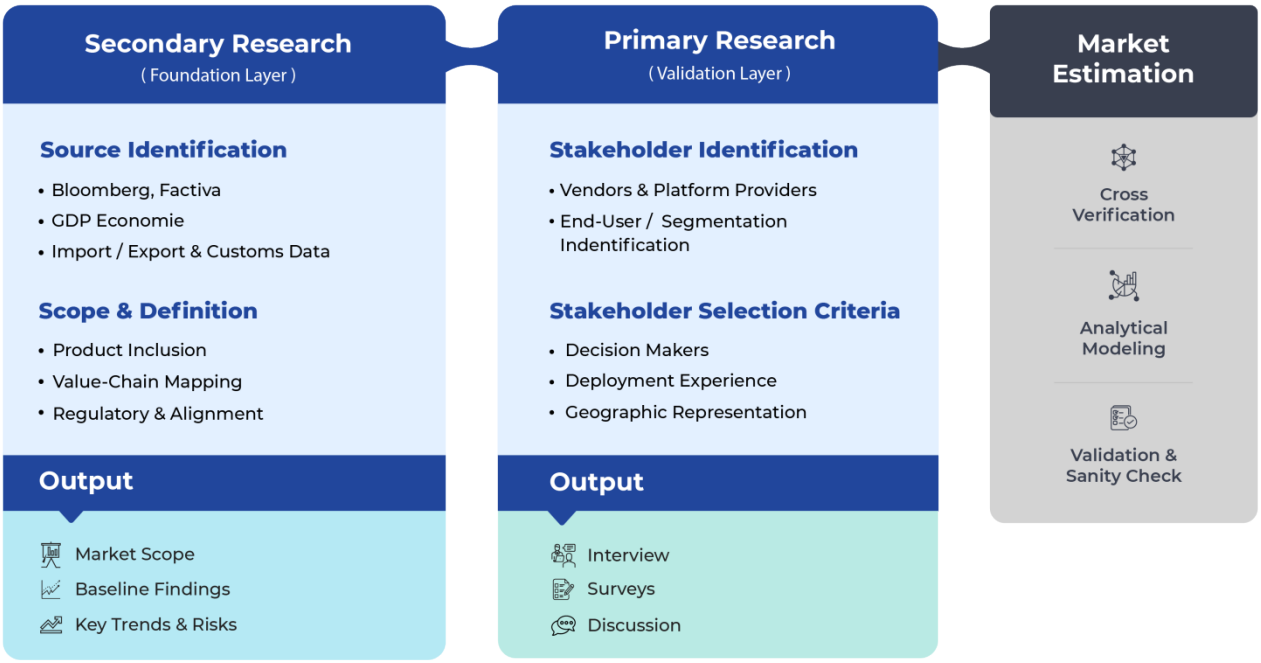
Qualitative interpretation explains the conditions that could affect purchasing, switching, access, and support. Quantitative interpretation must retain the same offering and project boundaries. Neither a plausible market mechanism nor a technology classification independently establishes a monetary estimate.

2.2. Research Design

The study separates offering identity, purchasing responsibility, project status, and commercial interpretation. For a submarine communication cable system, evidence that an organization offers equipment or services answers a different question from evidence that a buyer has commissioned a system, qualified a supplier, or accepted delivery.

Coverage follows the included offering categories, buyer sectors, operating contexts, and lifecycle stages. Observations should support conclusions only within their demonstrated scope. Conditional implications-such as potential switching flexibility or a viable delivery arrangement-must retain the prerequisites that distinguish them from established commercial facts.

Figure 2. Global Submarine Communication Cable System Market, Research Design



2.2.1. Primary Research

The analyst team conducted primary research as a qualitative challenge layer for market definition, segmentation, demand conditions, adoption barriers, and competitive interpretation. This work tested analytical assumptions and sharpened explanations of market mechanisms without serving as standalone support for numerical estimates.

The qualitative challenge layer is evaluated alongside secondary evidence within the accepted market scope. It informs conditional market explanations and hypotheses for subsequent quantitative analysis. Numerical estimates require their own supporting evidence, and a forecast derived from a qualitative assumption does not independently validate that assumption. Final interpretation must reconcile the qualitative findings with the completed quantitative results.

2.2.2. Secondary Research

Secondary evidence provides the documentary basis for separating what is offered, who purchases or owns it, what a commercial commitment includes, and what status a project has reached. Supplier descriptions can support declared offering identity, while project and ownership records address participation and responsibility. Records of permissions address the legal status of the relevant activity within their stated jurisdiction.

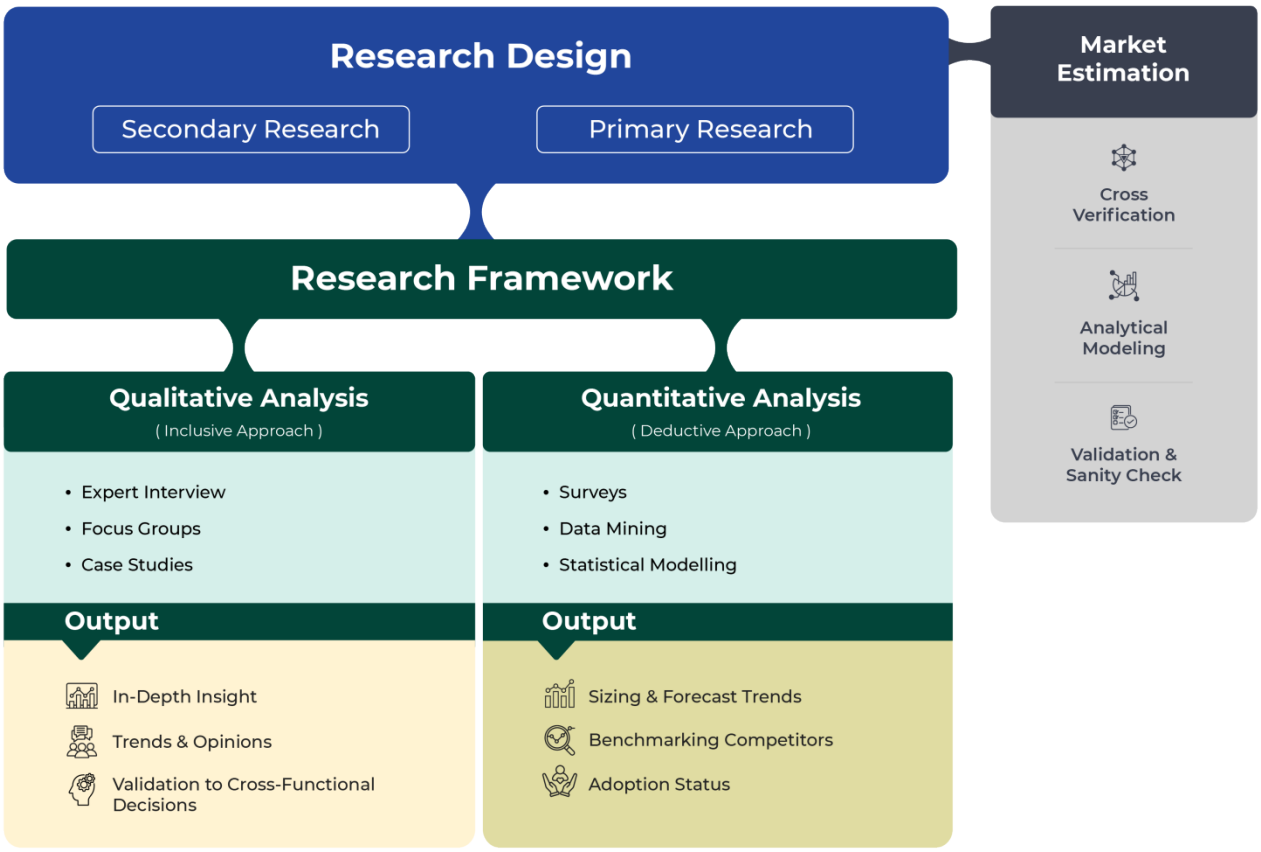
These evidence roles must not be substituted for one another. A product description does not establish a purchase or buyer qualification; a project announcement does not establish completed delivery; and permission for an activity does not establish its commercial viability. Interpretation must preserve the subject, scope, and status actually supported by each document.

2.3. Research Framework

The framework connects the market definition to the accepted taxonomy, then connects specific offerings to suppliers, buyers, and contractual responsibilities. Supplier relevance is assessed through participation in included offerings, not through the entirety of a corporate portfolio. Buyer relevance is distinguished from the connectivity application that a system serves.

Competitive comparisons should match the offering, operating context, and lifecycle stage before interpreting procurement alternatives. Repeater Architecture, Terminal Interoperability, Procurement Model, Contracting Channel, and Ownership Structure provide complementary lenses for examining eligibility and accountability; none alone establishes an attractive opportunity or a preferred supplier.

Figure 3. Global Submarine Communication Cable System Market, Research Framework



2.3.1. Qualitative Analysis

Qualitative analysis addresses buyer qualification, purchasing authority, terminal interoperability, integration accountability, landing access, and lifecycle support. It asks what a supplier or contractor must demonstrate for the relevant offering and buyer, rather than treating participation in a broad technology category as evidence of suitability.

Commercial comparisons examine the conditions under which a buyer could change terminal suppliers, separate delivery packages, add sensing capabilities, or extend an existing system's

life. These choices require attention to contractual responsibility, documented compatibility, approvals, and support obligations; the framework does not presume that openness, disaggregation, or a newer architecture is inherently preferable.

2.3.2. Quantitative Analysis

Quantitative interpretation must retain the study's year roles, USD reporting currency, and absolute-value scale. Comparability also requires an identifiable offering scope and a clear distinction between an announcement, a commercial commitment, delivery, and operation. These states are not interchangeable monetary observations.

The segmentation axes provide independent views of the same commercial activity, not additional totals to be added together. An observation classified by offering, buyer, architecture, ownership, and lifecycle remains subject to one consistent commercial boundary. Shared Multipurpose Connectivity and contracts spanning several offering categories require explicit attribution before comparisons can be interpreted.

2.4. Market Size Estimation

Market-size interpretation is bounded by the included equipment, software, infrastructure works, and services associated with submarine communication cable systems. Category inclusion establishes relevance to the study, but does not by itself establish that separately described commercial activity can be added without overlap.

A complete system award and the equipment or subcontracted services within it may describe nested activity. Monetary interpretation therefore requires evidence of the commercial perimeter represented by each observation. Downstream connectivity services and unrelated supplier activities must not be incorporated merely because they depend on, or share an organization with, the covered systems.

2.4.1. Top-Down Approach

A top-down perspective provides a scope check against broader descriptions of corporate or infrastructure activity. Such descriptions cannot be interpreted as the submarine communication cable system market without evidence connecting them to the included offerings and separating unrelated business activity.

Corporate totals, telecommunications service activity, and general infrastructure reporting have different boundaries from this study. Partial correspondence supports only the portion that can be defensibly attributed; it does not justify assigning an unexplained remainder to the market.

2.4.2. Bottom-Up Approach

A bottom-up perspective requires identifiable commercial activity associated with individual included offerings or systems. Separate equipment supply, software, landing works, marine services, and operational support must remain distinguishable from a complete delivery package when interpreting their contribution.

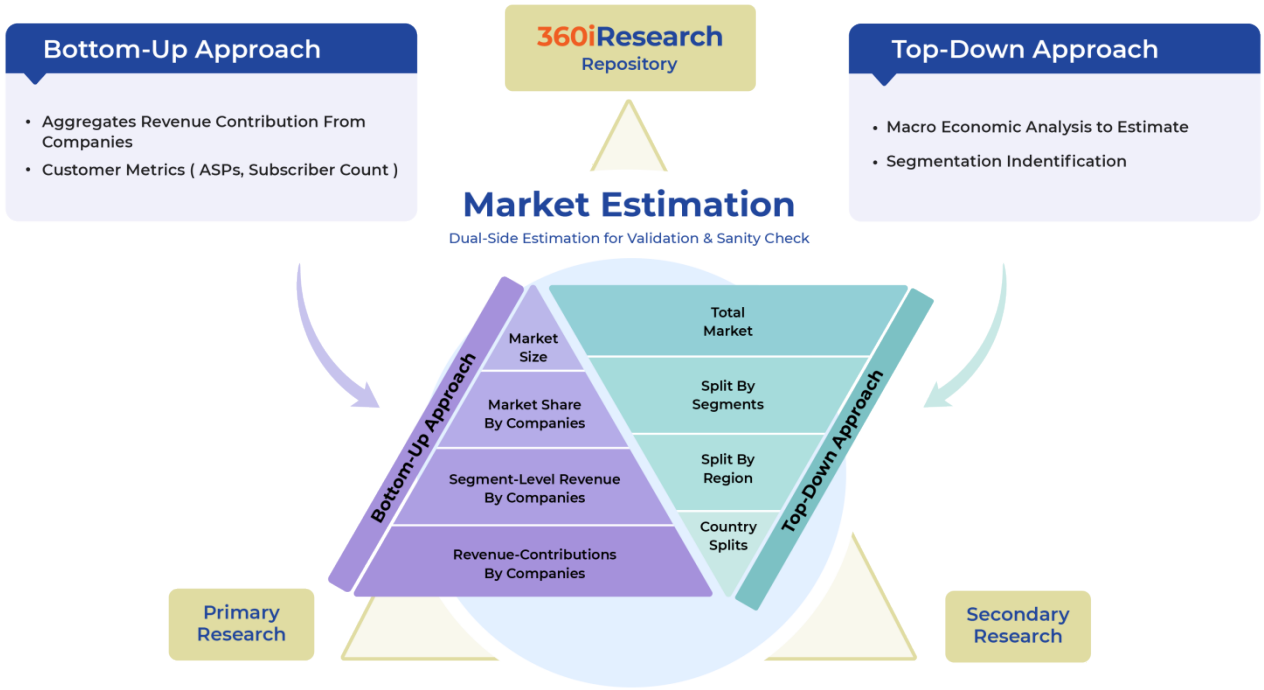
Descriptions of the same system by its owner, supplier, integrator, and marine contractor do not automatically represent independent activity. Product listings and project participation establish relevance only within their documented scope; neither is sufficient on its own to establish an additive monetary contribution.

2.5. Data Triangulation

Triangulation addresses consistency of identity, offering scope, project status, and commercial responsibility across evidence. Several documents repeating the same underlying announcement do not constitute independent confirmation. Apparent agreement must be assessed against what each document actually establishes.

Differences between an owner's system description, a supplier's package description, and a contractor's participation may reflect distinct scopes rather than contradictory facts. Interpretation must preserve those boundaries and keep unresolved differences conditional. Qualitative explanations can challenge commercial assumptions but cannot replace independent support for numerical conclusions.

Figure 4. Global Submarine Communication Cable System Market, Data Triangulation



2.6. Research Outcomes

The intended outcomes are a defensible account of which offerings buyers require, what establishes supplier eligibility, how delivery and ownership arrangements allocate responsibility, and which conditions affect procurement, switching, and lifecycle support. The analysis should distinguish a documented commercial capability from an announced offering or an unverified qualification claim.

Decision support should identify the evidence required before committing to a supplier, contracting arrangement, upgrade, or new system, together with the alternatives and remaining uncertainties. Quantitative interpretation must remain consistent with these commercial boundaries rather than substituting monetary estimates for evidence of buyer access or delivery capability.

2.7. Research Assumptions

- Offering relevance is tied to submarine communication cable systems. Separately supplied fiber, components, software, works, and services remain included, while unrelated activities in the same supplier's portfolio do not establish additional market participation.
- Buyer Sector and Connectivity Application describe different relationships. Purchasing authority must be distinguished from the beneficiaries of connectivity, particularly for Shared Multipurpose Connectivity and Shared Ownership.
- Procurement Model and Contracting Channel do not independently establish responsibility for every delivery package. Conclusions about supplier access or owner obligations depend on the documented allocation of integration, acceptance, and support responsibilities.
- Forward-looking commercial interpretation is conditional on the applicable financing, permissions, procurement commitments, and delivery obligations. An announced system or upgrade is not assumed to become operational merely because its category is included in the study.
- Architecture, sensing, and cable-construction classifications identify comparison contexts rather than interchangeable capabilities. Supplier suitability and switching conclusions require evidence specific to the relevant system and buyer requirements.

2.8. Research Limitations

- A bundled system description can encompass equipment, landing works, integration, and marine services. Where those scopes are not distinguishable, the description cannot establish directly comparable standalone category observations or independent contributions.
- Announcements, awards, delivery, and operational status support different conclusions about project realization. Evidence for one milestone cannot establish another, limiting conclusions about the timing of commercial activity.
- An Open Cable Interfaces designation or a supplier portfolio listing does not establish qualification for a particular buyer or system. Switching and sourcing conclusions remain limited to the compatibility, contractual permissions, and support responsibilities actually demonstrated.
- Cross-border systems and shared ownership can connect several jurisdictions and organizations through the same underlying asset. Country presence, landing location,

or ownership participation alone cannot establish a complete local monetary attribution.

- Inclusion of Multicore Fiber, Fiber-Based Sensing, or Integrated Sensor Packages does not establish equivalent commercial maturity across suppliers or projects. Capability comparisons must distinguish announced offerings from documented delivery and operation.

3. Executive Summary

3.1. Introduction

The Global Submarine Communication Cable System market is defined commercially by the deliverable and responsibility purchased, not by the cable asset alone. Complete systems coexist with separately supplied components, software, landing works, integration, marine services, and operational support. NEC Corporation's end-to-end proposition and Ciena's announced MONET and SACS equipment-and-software upgrade illustrate different competitive positions. Buyers should first distinguish improvement of an installed route from a requirement for a physically independent connection; the former retains the existing asset's geographic dependencies.

Cloud-network integration and cable resilience create different purchasing motives. Google's planned Sol system addresses its own cloud-network and landing requirements, while European cable-hub and repair initiatives address monitoring, coordination, and recovery readiness. Neither cloud sponsorship nor public support automatically creates an open wholesale channel or a supplier award. The principal business choice is therefore the appropriate package and accountable purchaser, with commitments tied to qualification, access, acceptance, and funded continuing obligations.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC markets end-to-end submarine-system solutions through maintenance, supporting a complete-system comparison boundary. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. Strengthening network resilience with the Sol transatlantic cable
   · Google's Sol announcement links the planned system to its cloud network, resilience, and terrestrial interconnection requirements; it is not operating confirmation. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
3. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena announced planned equipment and network-control software deployment on Angola Cables' existing MONET and SACS systems, distinct from new physical-route construction. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
4. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The Commission announced Regional Cable Hubs and a repair-capacity call addressing monitoring, detection, coordinated response, and resilience. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))

3.2. CXO Perspective

Asset-owner executives should separate control requirements from connectivity requirements when allocating capital: Sole Ownership, Shared Ownership, and purchased connectivity provide different rights and retained obligations. Procurement choice should follow coordination capability. Owner-Led Disaggregated Delivery preserves package selection but requires funded interface management, acceptance authority, and remedies; Supplier-Led

Turnkey Delivery is a defensible alternative where the owner cannot undertake those responsibilities.

Equipment incumbents can pursue approved installed-system packages, while specialist entrants must establish whether an owner or system supplier controls their package award. Open Cable Interfaces support sourcing choice without conferring system-specific approval. U.S.-connected buyers must separately verify the operative FCC provision, counterparty role, and license conditions. The framework also provides conditional processing simplification, so regulatory screening should not become an unsupported universal exclusion.

For operators, resilience investment should close a documented responsibility gap rather than duplicate existing coverage. ASN's warranty and optional support, Global Marine's maintenance exclusions, and managed-monitoring offerings demonstrate why equipment assistance, supervision, and marine-restoration entitlement require separate treatment. Additional services are defensible where coverage, escalation responsibility, and continuing purchasing obligations are explicit.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC's integrated offering establishes consolidated supply as a procurement alternative; individual retained obligations remain contract-specific. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN separates warranty coverage, optional assistance, customer responsibilities, and marine-support offerings.
   ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
3. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The named operator's planned installed-system purchase establishes an equipment account route, not another owner's approval or completed deployment.
   ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
4. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · ITU-T G.xx.xx states a multivendor transmission-equipment objective; it does not establish individual-system commercial qualification. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
5. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Global Marine excludes shallow-water sections and beach joints unless specifically contracted, supporting agreement-specific coverage assessment.
   ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
6. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42
   · The FCC's July xx.xx 2026 publication adopts terminal-owner oversight and security conditions, distinguishes delayed provisions, and provides conditional processing simplification. Transaction-specific operative requirements require verification. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))
7. Disaggregated System Supply
   · Pioneer offers package selection, procurement formation, permitting oversight, implementation coordination, and project management for disaggregated systems.
   ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))

8. DigitalMarine
   · DigitalMarine is marketed with alerting and continuing network-operations assistance, distinct from a marine-maintenance agreement. ([fibersense.com](https://fibersense.com/digitalmarine/))
9. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   · Fugro identifies SubCom as its contractual customer for the disclosed Argentina telecommunications-cable survey, establishing an immediate system-supplier purchaser. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
10. Delivering increased connectivity with our first private trans-Atlantic subsea cable
    · Google distinguishes purchased connectivity, consortium participation, and private development, stating that it uses a combination to meet network requirements. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

3.3. New Revenue Opportunities

The supported revenue themes are qualified terminal and software packages for installed-system operators; landing access and facility operations for cable sponsors; complementary monitoring and maintenance for defined lifecycle needs; owner representation where disaggregation creates a funded coordination mandate; and scientific sensing for an identified additional sponsor. Public and institutional opportunities depend on an authorized package rather than sector participation or funding alone. These routes remain conditional on the relevant approvals and contractual rights. Combined Fiber and Sensor-Package Sensing requires separate asset-level verification of both purchased scopes and operating status. The Opportunity Mapping section assesses the distinct buyers and access barriers.

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google identifies DC BLOX and Telxius as planned landing partners, supporting sponsor-specific landing demand rather than inferred outside-customer access. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The MONET and SACS announcement supports an identifiable installed-network equipment-and-software opportunity, subject to account-specific access conditions. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
3. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The FSM program combines international connectivity with domestic distribution, open-access institutions, and regulatory reform, supporting distinct public-connectivity purchasing needs. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
4. CEF-Digital new call open: €20 million to ensure fast emergency repair of submarine cables in the Baltic Sea
   · The February 2026 Baltic repair pilot restricted applicants to public emergency-response entities, distinguishing grant access from a private supplier's purchasing relationship. ([hadea.ec.europa.eu](https://hadea.ec.europa.eu/news/cef-digital-new-call-open-eu20-million-ensure-fast-emergency-repair-submarine-cables-baltic-sea-2026-xx.xx-05_en))

5. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · The recommendation supports multivendor participation as a premise for conditional terminal opportunities, with actual buyer approval requiring separate verification. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
6. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Published maintenance exclusions support complementary purchasing for a verified obligation, not an assumed gap in every agreement. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
7. Disaggregated System Supply
   · The owner-side service offering supports a separately purchasable coordination mandate; delegated expenditure and acceptance authority require agreement. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
8. DigitalMarine
   · The managed-monitoring offering supports a defined lifecycle supervision purchase, subject to agreed asset and responsibility boundaries. ([fibersense.com](https://fibersense.com/digitalmarine/))
9. IP e ASN assinam contrato para construção de Novo Anel CAM
   · The Atlantic CAM construction-contract announcement includes a SMART component and IPMA collaboration, establishing a named scientific constituency in contracted development. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))
10. Alcatel Submarine Networks (ASN) commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    · ASN's March xx.xx 2023 release announces ongoing development combining SMART and other sensing technologies; it does not establish the asset-level operating reference required by the assessed combined-sensing proposal. ([asn.com](https://www.asn.com/press-release/alcatel-submarine-networks-asn-commences-development-of-climate-change-solution-by-integrating-scientific-sensors-and-sensing-technologies-into-submarine-telecom-systems/))
11. Subsea Landing Solutions - Telxius
    · Telxius markets landing-station planning, operation, maintenance, facility use, and upgrades as distinct service offerings. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))

3.4. Next-Generation Business Models

Established service offerings extend commercial relationships beyond initial system delivery: ASN separates optional and renewed support, FiberSense markets managed monitoring, and Telxius offers landing-facility operations. These are documented alternatives, not evidence of universal adoption. Owners can retain supervision or facility control, or purchase defined continuing services; outsourcing substitutes contractual dependence for selected internal duties and does not automatically confer marine-repair priority.

Specialist participation can follow Direct Asset-Owner Contracting or Intermediated Contracting. Fugro's disclosed SubCom relationship supports an integrator-led route for a defined survey package, while direct purchasing remains an alternative where the owner controls the award and can coordinate the handoff. The model should follow the actual purchaser and allocation of acceptance and support responsibility rather than presume that intermediation transfers all project liability.

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN describes optional services and maintenance-contract renewal after warranty, establishing continuing support relationships beyond initial delivery. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Marine maintenance is governed by scheduled coverage, exclusions, and zone arrangements; another service purchase does not establish marine-repair priority. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
3. DigitalMarine
   · DigitalMarine combines monitoring with continuing operations support, establishing a managed-service alternative to owner-administered supervision. ([fibersense.com](https://fibersense.com/digitalmarine/))
4. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   · The disclosed SubCom relationship supports an integrator-led specialist channel for that project, not a universal contracting model or liability transfer. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
5. Subsea Landing Solutions - Telxius
   · The landing-operation offering supports a continuing outsourced facility model rather than requiring owner-operated development; customer access remains contractual. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))

3.5. Industry Roadmap

During 2026-2027, commitment gates are facility acceptance, continuing support, and identifiable procurement authority. DC BLOX expects Palm Coast to operate in the first quarter of 2027; dependent buyers should require site-specific access and acceptance. Operators should settle support entitlements at service entry or renewal, while suppliers should distinguish European resilience funding from a contracted vendor mandate.

During 2028-2029, Candle's scheduled 2028 operation and Petal's scheduled 2029 operation are monitoring milestones, not assured outcomes. Petal assigns funding and operation to Meta, system construction to NEC Corporation, and Multicore Fiber supply to Sumitomo Electric Industries, Ltd. Development-stage participation and procurement requiring operating references remain different choices; the latter should stay conditional until the relevant milestone is documented.

During 2030-2032, retirement decisions should turn on continuing need, asset rights, and jurisdiction-specific obligations rather than assumed replacement by age. Recovery contracting and asset transfer allocate control differently, and NOAA's sanctuary guidance permits case-specific consideration of retaining cable in place. Public sponsors should also address binding domestic-access and operating-institution constraints before assuming another international cable resolves the service need.

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore

   · NEC's Candle announcement schedules operation for 2028 and identifies participating organizations, a management committee, and a Philippine landing-party role. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))

2. ASN End to End Services & Solutions for Submarine Cable Systems

   · ASN identifies support renewal before warranty expiry and optional services to discuss before service entry. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))

3. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System

   · Petal is scheduled to operate in 2029. Meta will fund and operate it, NEC will construct the system, and Sumitomo Electric will supply Multicore Fiber. These are announced roles and milestones, not completed operation. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))

4. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)

   · The World Bank identifies continuing domestic-network and institutional investment needs in FSM, supporting conditional attention to local complements rather than international assets alone. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

5. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity

   · The public hub and repair initiatives establish institutional commitments, not private vendor appointments; procurement conversion remains a commercial condition. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))

6. CEF-Digital new call open: €20 million to ensure fast emergency repair of submarine cables in the Baltic Sea

   · The pilot's public-applicant restriction establishes a procurement gate; the funding call does not appoint a private vendor. ([hadea.ec.europa.eu](https://hadea.ec.europa.eu/news/cef-digital-new-call-open-eu20-million-ensure-fast-emergency-repair-submarine-cables-baltic-sea-2026-xx.xx-05_en))

7. Final Policy and Permit Guidance for Submarine Cable Projects

   · NOAA's national marine sanctuary guidance addresses removal funding and financial assurance while permitting case-specific consideration of retaining cable in place; it is not a global removal rule. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

8. Our Services - Mertech Marine

   · Mertech markets retired-cable recovery and recycling and describes acquiring out-of-service cable from owners, supporting separate service and asset-transfer relationships. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))

9. Cable Landing Stations - DC BLOX

   · DC BLOX describes Palm Coast as expected to operate in the first quarter of 2027, distinct from existing Myrtle Beach infrastructure; this is not customer acceptance. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))

4. Market Overview

4.1. Introduction

The Global Submarine Communication Cable System market is a project-based infrastructure market with distinct equipment, component, software, construction, integration, marine-service, and operational-support purchases. ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ Architecture, ownership, and procurement classifications describe different commercial relationships; they do not make the included categories interchangeable or additive.

Participants occupy overlapping but distinguishable roles. ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ The market therefore combines continuing support for installed infrastructure with procurement for new systems and upgrades.

The commercially relevant comparison is the deliverable and responsibility being purchased: a complete system, a qualified component, an upgrade, a landing facility, or a lifecycle service. ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ An announced project demonstrates commercial intent or a development commitment, not completed operation, and an included category does not establish every supplier's capability within it.

Figure 5. Global Submarine Communication Cable System Market Size, 2017-2040 (USD MILLION, GROWTH %)

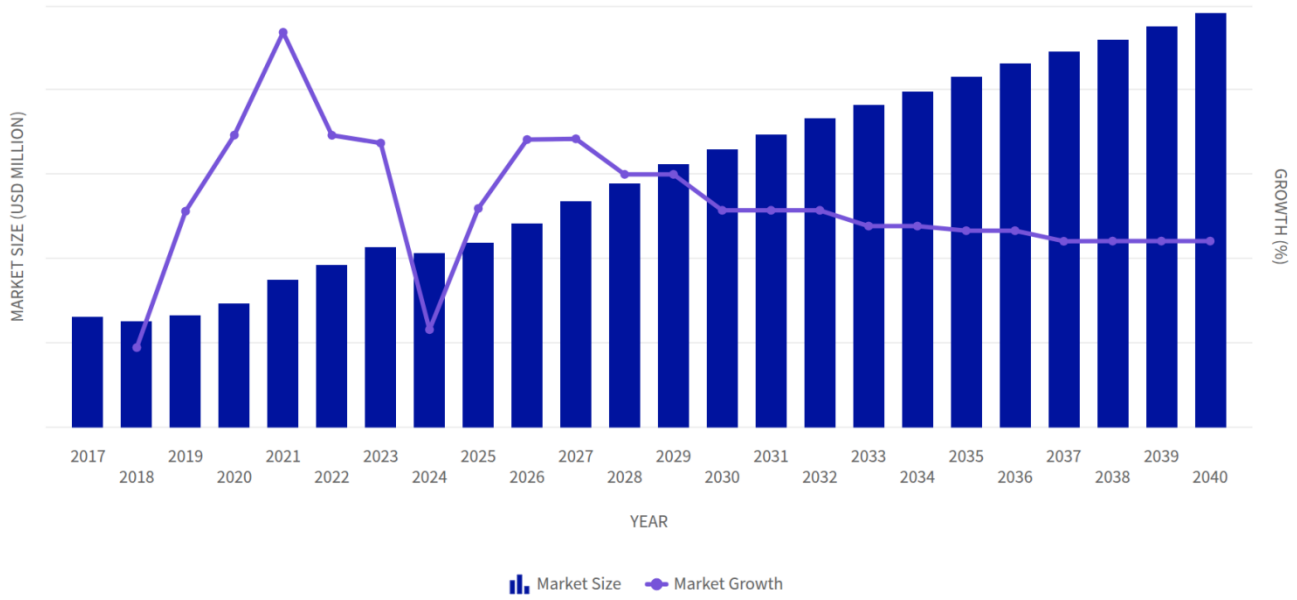


Table 2. Global Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

World	2023	2024	2025	2026	2027	2032	CAGR (%)
Global	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   - NEC publicly offers end-to-end submarine-system solutions extending from development to maintenance. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   - The September xx.xx 2025 announcement identifies several participating network organizations in the planned Candle system. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))
   - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
3. ViaTunisia subsea segment reaches Ready for Service
   - Orange announced ViaTunisia's operational availability on June xx.xx 2026. ([newsroom.orange.com](https://newsroom.orange.com/viatunisia-subsea-segment-reaches-ready-for-service/?lang=eng))
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
6. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

12. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
14. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
16. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
17. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

4.2. Key Growth Contribution

Cloud-network requirements can translate into submarine-system purchasing through either a new connection or equipment and software procurement on an installed asset. Google's stated Sol rationale and Angola Cables' announced MONET and SACS upgrade illustrate these distinct routes. Serving the latter requires approved equipment participation, integration capability, and continuing support rather than complete wet-plant delivery. Its material counterforce is the owner's objective: an upgrade retains existing geographic dependencies and cannot substitute for a separately required physical route.

Figure 6. Global Submarine Communication Cable System Market, Key Growth contribution, 2025-2032



Figure 7. Global Submarine Communication Cable System Market, Forecast growth by country, 2025-2032 (CAGR %)

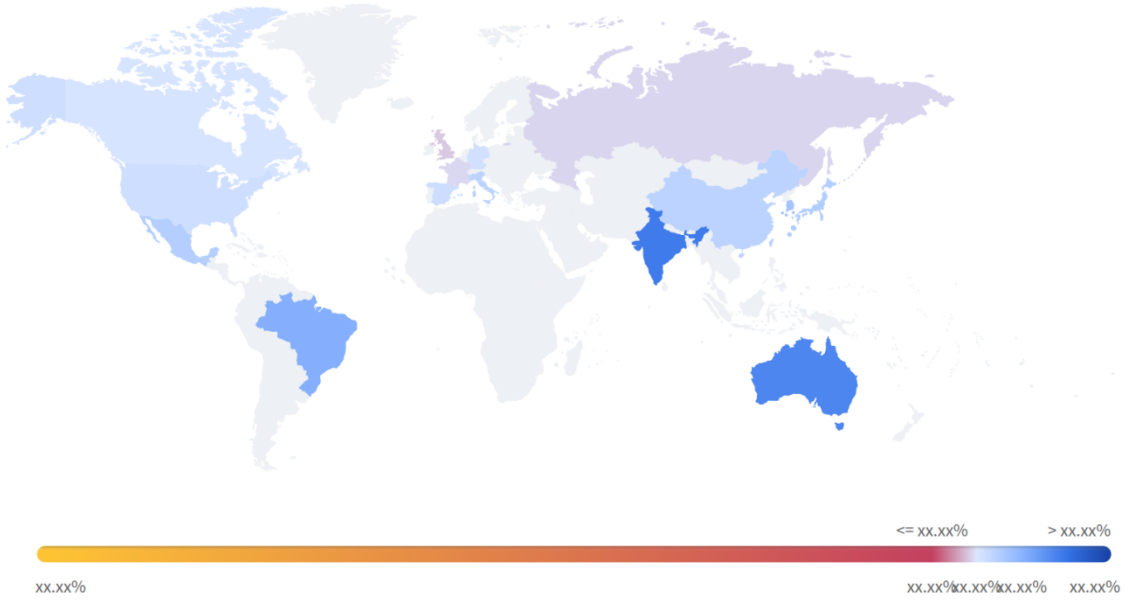


Table 3. Global Submarine Communication Cable System Market, Key Growth Contribution, 2025-2032

Scope	Leading category	Added value (USD Million)	Growth share (%)	CAGR (%)
Global - Buyer Sector	xx.xx	xx.xx	xx.xx	xx.xx
Global - Cable Protection Construction	xx.xx	xx.xx	xx.xx	xx.xx
Global - Connectivity Application	xx.xx	xx.xx	xx.xx	xx.xx
Global - Contracting Channel	xx.xx	xx.xx	xx.xx	xx.xx
Global - Country	xx.xx	xx.xx	xx.xx	xx.xx
Global - Optical Fiber Core Architecture	xx.xx	xx.xx	xx.xx	xx.xx
Global - Ownership Structure	xx.xx	xx.xx	xx.xx	xx.xx
Global - Procurement Model	xx.xx	xx.xx	xx.xx	xx.xx
Global - Product and Service Offering	xx.xx	xx.xx	xx.xx	xx.xx
Global - Project Lifecycle	xx.xx	xx.xx	xx.xx	xx.xx
Global - Region	xx.xx	xx.xx	xx.xx	xx.xx
Global - Repeater Architecture	xx.xx	xx.xx	xx.xx	xx.xx
Global - Sensing Integration	xx.xx	xx.xx	xx.xx	xx.xx
Global - System Topology	xx.xx	xx.xx	xx.xx	xx.xx
Global - Terminal Interoperability	xx.xx	xx.xx	xx.xx	xx.xx
Global - Water Depth Class	xx.xx	xx.xx	xx.xx	xx.xx

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google connects planned Sol investment with cloud and AI services, network reliability, and terrestrial interconnection, supporting an owner-specific purchasing motive. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena's September xx.xx 2026 announcement describes planned equipment and network-control software deployment on Angola Cables' existing MONET and SACS systems, establishing an installed-asset purchasing example rather than completed deployment. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
3. Nokia in 2024 - Annual Report on Form 20-F
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
5. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
6. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

7. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

8. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
9. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

10. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
11. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
12. Meta, SoftBank, IPS, TM, XLSmart, and NEC to build the Candle Subsea Cable System
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

13. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
14. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
15. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
16. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
17. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
18. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

19. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
20. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
21. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
22. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
23. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

24. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
25. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
26. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
27. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.

28. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
29. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
30. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
31. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.

32. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
33. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
34. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.

35. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
36. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
37. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
38. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
39. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.

40. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
41. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
42. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
43. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
44. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.

45. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
46. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

48. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
49. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

4.3. Industry Ecosystem & Value Chain Analysis

[redacted] Supplier-Led Turnkey Delivery can consolidate contractual responsibility, while Owner-Led Disaggregated Delivery can retain package-level choice. The latter requires the owner to resolve interfaces, acceptance responsibility, and remedies across suppliers rather than assuming those obligations disappear.

Landing facilities and interconnection are commercial control points because the submarine asset must reach the networks and facilities its buyer needs. [redacted] Buyers should identify the rights to project information and the responsibility for handoffs between software, service, and infrastructure packages.

Value capture continues after the initial delivery. ASN distinguishes warranty support from optional and renewed services, including monitoring, cybersecurity, hardware support, and marine-repair coordination. ■■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■ ■■ ■■■■■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■ ■■■■■ ■■■■■■■■■ ■■■■ ■■■ ■■■■■ ■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■ ■■ ■■■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■

Sources & Evidence

1. ViaTunisia subsea segment reaches Ready for Service
   · ASN supplied system equipment, Orange Marine and Elettra TLC undertook marine delivery, and Orange provided onward terrestrial interconnection. ([newsroom.orange.com](https://newsroom.orange.com/viatunisia-subsea-segment-reaches-ready-for-service/?lang=eng))
2. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN distinguishes warranty support, optional services, maintenance renewal, monitoring, cybersecurity, and marine-repair coordination. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
3. MakaiPlan
   · Makai markets submarine cable-planning software supporting collaborative project information and handoffs between lifecycle software products. ([makai.com](https://www.makai.com/cable-software/makaiplan/))
4. Introducing Our New Eco-Friendly Cable Recovery Ship
   · Subsea Environmental Services describes recovery work on SEA-ME-WE-xx.xx in the Mediterranean, establishing a distinct recovery business activity. ([subsea.cc](https://subsea.cc/news/introducing-our-new-eco-friendly-cable-recovery-ship/))

4.3.1. Supply-Side Analysis

Supply eligibility is package-specific. NEC markets end-to-end system delivery, Global Marine provides installation and maintenance services, and Ciena supplies equipment and software for upgrades to installed submarine networks. ■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■ ■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■ ■■ ■■■ ■■■■■■ ■■■ ■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■

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system, not operating equivalence across suppliers or interchangeability with Single-Core Fiber. Owners should require a delivery-status record and explicit support allocation before relying on a new architecture in procurement comparisons.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · The portfolio establishes NEC's complete-system business role, not equivalence with narrower service or component roles. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. About Global Marine
   · Global Marine publicly provides installation, maintenance, and emergency-repair services and supports regional maintenance customers. ([globalmarine.co.uk](https://globalmarine.co.uk/about-us/about-global-marine/))
3. Orange Marine modernizes its fleet of cable ships to secure digital infrastructure in Europe, Africa and the Middle East
   · Orange's November xx.xx 2025 announcement describes replacement maintenance vessels with delivery expected in 2028 and 2029. ([orange.com](https://www.orange.com/assets/document/xx.xx/download))
4. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   · Petal assigns funding and operation to Meta, system construction to NEC, and Multicore Fiber supply to Sumitomo Electric; operation is scheduled for 2029. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))
5. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena announced terminal-platform and network-control-software deployment on Angola Cables' existing MONET and SACS network. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))

4.3.2. Demand-Side Analysis

[redacted] Telecommunications and Cable Network Operators may instead combine ownership, shared participation, and purchased connectivity rights. The purchasing decision should distinguish network control from a need for connectivity: obtaining an indefeasible right of use or a capacity lease does not necessarily require owning the complete asset.

Shared and publicly supported systems have different decision structures. Candle involves several participating network organizations, while the East Micronesia Cable System was handed over to national operators following government-supported development. [redacted]

For smaller and dispersed economies, international connectivity is only one part of the buyer's problem. The World Bank's Micronesia program connects submarine access with competition, open-access infrastructure, and middle- and last-mile development. [redacted]

[redacted]

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   · Candle's participants, management committee, and local landing-party role establish a multi-party purchasing context. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))
2. Strengthening network resilience with the Sol transatlantic cable
   · Google connects planned Sol investment with cloud and AI services, network reliability, terrestrial interconnection, and landing-hub development. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
3. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
   · NEC reported completion and handover to national operators in May 2026, with development supported through government grant funding. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))
4. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The program combines international connectivity, competition, open-access institutions, and domestic network development; satellite serves remote locations where fiber is not viable. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
5. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - Final Rule, 2025
   · The FCC order recognizes capacity leases and indefeasible rights of use, including arrangements involving terminal ownership or control. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2025-xx.xx-xx.xx/pdf/2025-xx.xx.pdf))

4.3.3. Stakeholder Analysis

Asset owners, landing operators, equipment suppliers, marine providers, and regulators control different commitments. An owner may select a system supplier without controlling the landing facility or the permissions governing marine work. [redacted] Private suppliers could not infer direct grant eligibility from the existence of the program. Their potential role would depend on a qualifying public buyer's procurement, while the asset owner would still need to establish how publicly supported emergency capacity relates to its own service arrangements.

Sensing introduces another constituency: Research and Education Institutions and public monitoring organizations may value data that a telecommunications owner does not

purchase for its core connectivity purpose. ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ Scientific usefulness alone does not determine who bears those obligations.

Sources & Evidence

1. 10th Workshop on SMART Cables
   · The ITU-led SMART initiative connects telecommunications participants and scientific communities around monitoring and disaster-risk-reduction purposes. ([itu.int](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/2025/xx.xx/Pages/default.aspx))
2. Fiber sensing (DAS)
   · ASN markets fiber-sensing equipment, associated processing software, and support services for submarine monitoring applications. ([asn.com](https://www.asn.com/fiber-sensing/))
3. L'Etat acquiert 80% du capital d'ASN (Alcatel Submarine Networks)
   · France explicitly links its acquisition of control over ASN with strategic activity and digital sovereignty. ([presse.economie.gouv.fr](https://presse.economie.gouv.fr/letat-acquiert-xx.xx-du-capital-dasn-alcatel-submarine-networks/))
4. CEF-Digital new call open: €20 million to ensure fast emergency repair of submarine cables in the Baltic Sea
   · The February 2026 Baltic repair pilot restricted applicants to public entities with an emergency-response mandate. ([hadea.ec.europa.eu](https://hadea.ec.europa.eu/news/cef-digital-new-call-open-eu20-million-ensure-fast-emergency-repair-submarine-cables-baltic-sea-2026-xx.xx-05_en))

4.4. Market Dynamics

New-system development, installed-system upgrades, and lifecycle support respond to different purchasing triggers. ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ Buyers should separate those objectives before choosing the procurement package.

▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ The resulting commercial pattern is milestone-dependent rather than uniform across offerings. A funded project, an equipment award, an available landing, and an enforceable maintenance arrangement support different conclusions about fulfillment.

Sources & Evidence

1. Orange Marine modernizes its fleet of cable ships to secure digital infrastructure in Europe, Africa and the Middle East
   · Expected future vessel deliveries distinguish fleet-renewal investment from immediately available service capability. ([orange.com](https://www.orange.com/assets/document/xx.xx/download))
2. Strengthening network resilience with the Sol transatlantic cable
   · Sol is a planned new connection, supporting a distinction from procurement on an installed route. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))

3. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The announcement establishes an installed-network upgrade purchasing path distinct from new cable construction.
   ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
4. Joint Communication to strengthen the security and resilience of submarine cables
   · The plan establishes resilience objectives across stages of the cable lifecycle.
   ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))
5. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The announced funding actions demonstrate attention to coordination and repair readiness rather than evidence of an individual commercial award.
   ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))

4.4.1. Key Drivers

4.4.1.1. Cloud Network Integration and Infrastructure Control

Cloud and content providers can justify submarine investment through the needs of their own distributed networks rather than wholesale connectivity sales alone. ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■ ■■■■■ ■■■■ ■■■■■ ■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■ ■ ■■■ ■■■■■■■■■■■■ ■■■■ This creates demand for coordinated cable and landing deliverables, but an announcement does not establish operational availability or access for other buyers.

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · The owner's stated network objectives support internal cloud-network integration as a purchasing motive.
   ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))

4.4.1.2. Resilience Requirements Across the Cable Lifecycle

Resilience policy creates purchasing requirements beyond new cable construction. ■■■ ■■ ■■■■■■ ■■■■ ■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■ ■■■■■■■■■ ■■■■ ■■■ ■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■ Its counterforce is procurement specificity: public policy support does not establish an award, an accessible supplier channel, or a buyer's contractual repair priority.

Sources & Evidence

1. Joint Communication to strengthen the security and resilience of submarine cables
   · The EU's February 2025 action plan addresses prevention, detection, coordinated response, and recovery.
   ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))
2. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The Commission's June xx.xx 2026 announcement supports regional cable hubs and launches a repair-capacity funding call.
   ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))

4.4.1.3. Upgrade Purchasing on Installed Cable Assets

Installed cables create a separate procurement path for terminal equipment, network-control software, and integration services. Ciena's announced upgrade for Angola Cables on MONET and SACS illustrates purchasing intended to improve an existing network rather than replace its submarine asset. ■■■■ ■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■ ■■ ■■■ ■■■■■■ ■ ■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■

Sources & Evidence

1. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The disclosed equipment and software upgrade supports purchasing on installed assets; it does not establish a new geographically independent route. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))

4.4.1.4. Publicly Supported Regional Connectivity

Public funding can enable regional submarine connections whose benefits extend across public services and the wider economy. NEC reported completion and handover of the East Micronesia Cable System in May 2026, supported through government grant funding. ■■■■ ■■■■■■■■■■■■ ■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■

Sources & Evidence

1. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
   · EMCS establishes an observed government-supported regional-system delivery mechanism. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))

4.4.2. Key Restraints

4.4.2.1. Security-Conditioned Counterparty and Supplier Access

National-security requirements can restrict eligible owners, equipment providers, service providers, and terminal-control arrangements on U.S.-connected systems. The FCC's 2025 and 2026 orders extend oversight beyond the identity of the complete-system owner. ■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■ ■■■■■ ■■ ■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■■ ■■■■ ■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■ ■■■ ■■■■■■■■■■■■■■■■

Sources & Evidence

1. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - Final Rule, 2025
   · The 2025 order adopts security-related eligibility and oversight provisions and distinguishes provisions with delayed effectiveness. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2025-xx.xx-xx.xx/pdf/2025-xx.xx.pdf))

2. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42 Final Rule
   · The Second Report and Order, adopted June xx.xx 2026, establishes terminal-owner oversight and additional equipment and service-provider restrictions; specified implementing provisions have delayed effectiveness. ([public-inspection.federalregister.gov](https://public-inspection.federalregister.gov/2026-xx.xx.pdf))

4.4.2.2. Landing and Associated-Works Authorization

[illegible] The obligation to grant a license for an international cable can reduce one approval barrier, but conditions and additional authorizations still matter. Owners should establish the relevant permission boundary before making delivery commitments.

Sources & Evidence

1. Apply to lay cables
   · UK guidance requires marine licensing for territorial-water cable laying, allows conditions for international cables, and distinguishes associated works requiring authorization. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))

4.4.2.3. Dependence on Local Access and Operating Institutions

International connectivity does not by itself resolve local distribution or institutional constraints. [illegible] Funding a cable without identifying the operating institution and distribution commitments can leave the original connectivity problem only partly addressed.

Sources & Evidence

1. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The complementary institutional and domestic-network work supports the conclusion that international access alone does not address every local constraint. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

4.4.3. Key Opportunities

4.4.3.1. Qualified Installed-System Equipment and Software Packages

Installed systems support separately purchased terminal, software, and integration packages. [illegible] Capture requires owner authority, system-specific approval, and continuing support; a requirement for geographic independence favors a different purchase.

Sources & Evidence

1. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · ITU-T G.xx.xx expressly supports multivendor transmission equipment; that objective does not establish an individual supplier's system-specific approval.
   ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
2. How GeoMesh Extreme Works
   · Ciena markets selectable transmission equipment, network management, and professional services for submarine operators, establishing a narrower purchasing route than complete-system construction.
   ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))

4.4.3.2. Funded Owner-Side Procurement and Coordination

Disaggregating owners can purchase coordination rather than assume complete internal capability. Pioneer Consulting's procurement and implementation offering addresses this need. ■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■ ■■■■ ■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■

Sources & Evidence

1. Disaggregated System Supply
   · Pioneer Consulting offers procurement formation, permitting oversight, implementation coordination, and project management for disaggregated systems, including package-specific supplier and timing choices.
   ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))

4.4.3.3. Accountable Landing Access and Facility Operations

Landing services can meet an owner's facility requirement without owner-operated station development. Telxius markets planning, operation, and maintenance for this role. ■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■■■

Sources & Evidence

1. Subsea Landing Solutions - Telxius
   · Telxius explicitly markets planning, operation, and maintenance of cable landing stations, establishing an outsourced facility-services role.
   ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))

4.4.3.4. Complementary Coverage for Defined Lifecycle Obligations

Documented coverage boundaries create opportunities for complementary lifecycle contracts. ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■ Providers should target an identified obligation or exclusion, not presume every owner has a gap or treat monitoring as restoration entitlement.

Sources & Evidence

1. Joint Communication to strengthen the security and resilience of submarine cables
   · The policy's separate detection and repair objectives support distinguishing monitoring purchases from restoration commitments. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))
2. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Global Marine's maintenance scope excludes shallow-water sections and beach joints unless specifically contracted, establishing an identifiable coverage boundary rather than universal restoration entitlement. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))

4.4.3.5. Sponsor-Funded Scientific and Monitoring Deliverables

Atlantic CAM's contracted SMART component and IPMA collaboration establish sponsor-specific scientific demand. ■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■ ■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■■■■ ■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ Ordinary connectivity procurement is not automatic sponsorship, and combined-sensing readiness requires separate asset-level evidence.

Sources & Evidence

1. IP e ASN assinam contrato para construção de Novo Anel CAM
   · The Atlantic CAM construction-contract announcement includes a SMART component and collaboration with IPMA, establishing a named scientific constituency within contracted development. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))

4.4.4. Key Challenges

4.4.4.1. Securing Enforceable Marine Repair Access

Repair readiness requires coordination among maintenance coverage, vessel mobilization, permissions, and available support resources. ICPC guidance explains that operators pool resources through regional arrangements and that cabotage and crewing restrictions can delay repairs. ■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■ ■■■ ■■■■■■■ ■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■ ■■ ■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■

Sources & Evidence

1. Orange Marine modernizes its fleet of cable ships to secure digital infrastructure in Europe, Africa and the Middle East
   · The announcement supports future fleet renewal, not an owner's present repair entitlement. ([orange.com](https://www.orange.com/assets/document/xx.xx/download))
2. Government Best Practices for Protecting and Promoting Resilience of Submarine Telecommunications Cables, Version 1.2
   · ICPC guidance describes resource pooling through regional maintenance arrangements and repair delays associated with cabotage and crewing restrictions. ([iscpc.org](https://www.iscpc.org/documents/?id=xx.xx))

4.4.4.2. Accountability in Multivendor Procurement

[redacted] The execution challenge is to establish who accepts the combined deliverable and remains accountable when suppliers differ. Buyers should obtain documented compatibility, approval, and support commitments before switching; retaining an integrated supplier can reduce interface coordination at the cost of sourcing flexibility.

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   - Separate support and network-evolution offerings support identifying lifecycle accountability when procurement involves different suppliers. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   - ITU-T G.xx.xx identifies enabling multiple transmission-equipment vendors as its primary purpose. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))

4.4.4.3. Resolving Shared-System Purchasing Authority

Shared Ownership creates an authorization question that is distinct from technical delivery. [redacted] Shared participation can combine network interests, but it does not establish unilateral purchasing authority for each member or prove that governance will delay delivery.

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   - The project structure supports verifying approval authority; the announcement does not establish unilateral authority or governance delay. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))

4.4.4.4. Allocating Sensing Funding, Data Rights, and Support

[redacted] Commercial execution requires a named sponsor, data-access rights, software and support responsibilities, and allocation of ongoing obligations. A sensing portfolio or scientific roadmap does not establish a funded requirement, universal project compatibility, or a guaranteed monitoring outcome.

Sources & Evidence

1. 10th Workshop on SMART Cables
   · The scientific-sensor roadmap establishes distinct constituencies and intended purposes, not funded requirements or universal project suitability. ([itu.int](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/2025/xx.xx/Pages/default.aspx))
2. Fiber sensing (DAS)
   · The distinct equipment, software, and support offering supports allocating commercial responsibilities without assuming a funded customer requirement. ([asn.com](https://www.asn.com/fiber-sensing/))

4.4.4.5. Qualifying Commercial Status of New Architectures

Architecture announcements must be distinguished from completed commercial operation. Petal identifies a Multicore Fiber supplier and system-delivery roles, but its stated operating date is in the future. ■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■■■ ■■ ■ ■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■■■ ■■■ ■■■■ ■■■■■■■■■■■■■

Sources & Evidence

1. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   · The announced collaboration establishes planned commercial roles rather than completed operating status. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))

4.5. Porter’s Five Forces Analysis

■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■■■ NEC's end-to-end offering and the division of responsibilities on ViaTunisia demonstrate these different commercial positions. Comparing their participants as interchangeable complete-system suppliers would misstate the competitive boundary.

Entry into complete-system delivery requires more than a relevant product listing. The entrant must establish responsibility for integration and fulfillment across the packages it undertakes. ■■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■ ■■■■■ ■■■■ ■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■ ■■■■■■■

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RESEARCH SAMPLE REPORT

[illegible] A sole owner can align purchases with its own network objectives; shared systems introduce multiple participating organizations and local landing responsibilities. Disaggregated purchasing may broaden package-level choice, but it also requires an owner capable of managing interfaces and obtaining the necessary participant approvals.

Commercial substitutes operate at different levels. Equipment upgrades can address requirements on existing routes, and capacity leases or indefeasible rights of use can substitute for owning an entire cable asset without replacing the underlying cable system. [illegible]

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC's end-to-end offering supports distinguishing complete-system rivalry from package-level competition. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   · Multiple participating organizations and landing responsibilities support differentiating shared-system governance from sole-owner purchasing. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))
3. ViaTunisia subsea segment reaches Ready for Service
   · The disclosed delivery roles support package-specific competition and accountability analysis. ([newsroom.orange.com](https://newsroom.orange.com/viatunisia-subsea-segment-reaches-ready-for-service/?lang=eng))
4. About Global Marine
   · Its specialist marine-service role supports distinguishing marine fulfillment from complete-system equipment supply. ([globalmarine.co.uk](https://globalmarine.co.uk/about-us/about-global-marine/))
5. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · Satellite use where fiber is not viable supports a location-specific substitute rather than universal cable equivalence. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
6. Government Best Practices for Protecting and Promoting Resilience of Submarine Telecommunications Cables, Version 1.2
   · Regional resource arrangements and cross-border vessel restrictions support marine-access dependency analysis; the document is guidance, not universal law. ([iscpc.org](https://www.iscpc.org/documents/?id=xx.xx))
7. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - Final Rule, 2025
   · Recognized lease and rights arrangements support distinguishing purchased connectivity control from complete-asset ownership. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2025-xx.xx-xx.xx/pdf/2025-xx.xx.pdf))
8. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · The multivendor objective supports broader participation but does not establish qualification for a particular installed system. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))

4.6. PESTLE Analysis

[illegible] The European Union has also directed support toward cable resilience and repair readiness. These actions can influence funding priorities and supplier-governance scrutiny, but they do not establish universal preferences for domestic suppliers or guarantee an individual project's financing.

Trade and macroeconomic exposure must be evaluated by delivery package. Ciena's 2025 annual filing identifies tariffs, changing exemptions, customer spending reactions, and foreign-exchange exposure in its international equipment business. [illegible]

Environmental permissions remain location-specific. UK guidance distinguishes international cable laying from associated works that may require additional authorization. [illegible]

Standards support commercial coordination without eliminating intellectual-property obligations. ITU-T G.xx.xx seeks to enable multiple transmission-equipment vendors, while the ITU patent framework accommodates patented technology under licensing commitments. [illegible]

Sources & Evidence

1. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · Open access and domestic distribution accompany international connectivity in the documented development program.
   ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
2. L'Etat acquiert 80% du capital d'ASN (Alcatel Submarine Networks)
   · The government's stated rationale establishes a political-industrial ownership interest, not preferential treatment for individual projects.
   ([presse.economie.gouv.fr](https://presse.economie.gouv.fr/letat-acquiert-xx.xx-du-capital-dasn-alcatel-submarine-networks/))

3. Joint Communication to strengthen the security and resilience of submarine cables
   · European policy attention to cable resilience supports analysis of public priorities without establishing individual project financing. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))
4. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The initiative establishes public support for European cable-security and repair priorities. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))
5. Apply to lay cables
   · The distinction between cable laying and associated works supports a location- and scope-specific environmental-permission assessment. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))
6. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · The standard's multivendor objective is distinct from intellectual-property permissions. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
7. What is ITU-T's IPR policy?
   · The ITU patent framework supports incorporation of patented technology in standards under reasonable and non-discriminatory licensing commitments. ([itu.int](https://www.itu.int/net/ITU-T/info/answers.aspx?Fp=faqs.aspx&Qn=xx.xx&ewm=False))
8. Ciena Corporation Annual Report on Form 10-K for the Fiscal Year Ended November 1, 2025
   · Ciena's 2025 filing identifies tariff and exemption uncertainty, possible customer spending reactions, international supply exposure, and foreign-currency risks. ([d18rn0p25nwr6d.cloudfront.net](https://d18rn0p25nwr6d.cloudfront.net/CIK-xx.xx/c178fc6c-a28c-421e-9a83-351bbaebaf3e.html))

4.7. Market Outlook

The outlook through 2032 is conditional on conversion of network objectives into accountable purchases, rather than on a uniform construction cycle. ■■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■ ■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ The commercial turning points are an authorized award, an accepted deliverable, and funded continuing obligations; policy attention alone is insufficient.

Ownership choice is a separate source of scenario sensitivity. Google's use of private development, consortium participation, and purchased connectivity demonstrates that even one cloud provider can employ different routes. ■■■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■ ■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■■ ■■ ■ ■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■ ■■ ■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC Corporation markets end-to-end submarine-system solutions extending through maintenance, establishing consolidated delivery as an available commercial alternative. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))

2. Joint Communication to strengthen the security and resilience of submarine cables
   · The EU's February 2025 communication addresses prevention, detection, response, repair, and deterrence, supporting lifecycle readiness as a distinct purchasing objective from new-system delivery. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))
3. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The Commission's June xx.xx 2026 announcement identifies proposed funding for Baltic and Mediterranean Regional Cable Hubs and a repair-capacity call, demonstrating institutional commitments rather than individual supplier awards. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))
4. Delivering increased connectivity with our first private trans-Atlantic subsea cable
   · Google distinguishes purchased connectivity, consortium participation, and private cable development and states that it uses all three, supporting requirement-specific ownership choices rather than universal preference for private construction. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

4.7.1. Near-Term Market Outlook (0-2 Years)

During 2026-2027, prospective facility acceptance and continuing-service commitments are actionable monitoring points. DC BLOX describes Palm Coast as expected to operate in the first quarter of 2027. ■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■ ■ ■■■■■■■ ■■ ■■■■■■ ■■■■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■

European resilience initiatives should be assessed at the transition from public commitments to identified purchasing authority. The announced Regional Cable Hubs and repair-capacity call establish institutional attention, not supplier appointments. ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■■■■

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN distinguishes warranty coverage, optional extended support, and post-warranty contract renewal, supporting service-entry and renewal decisions separate from construction. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. Commission funds first Regional Cable Hubs and launches €40 million call for cable repair capacity
   · The hub and repair initiatives support monitoring the transition from public programs to identified procurement authorities and commercial contracts during 2026-2027. This transition is an analytical condition, not an announced vendor award. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/news/commission-funds-first-regional-cable-hubs-and-launches-eu40-million-call-cable-repair-capacity))
3. Cable Landing Stations - DC BLOX
   · DC BLOX describes Palm Coast as expected to become operational in the first quarter of 2027, distinct from existing Myrtle Beach infrastructure. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))

4.7.2. Medium-Term Market Outlook (3-5 Years)

During 2028-2029, announced system milestones provide decision gates rather than assured outcomes. ■■■■■■ ■■ ■■■■■■■■■ ■■ ■■■■■■■ ■■ ■■■■ ■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■ ■■ ■■■■■■■■■ ■■■■■■ Buyers requiring an operating reference should wait for evidence matching that prerequisite; development-stage participation is a different commercial choice.

■■■■■■■ ■■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■ ■ ■■■■■■■■ ■■■■■■■■■■■■■■■■■■■ ■■■■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■■■ ■ ■■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ Component participants should establish the purchasing tier and delivery undertaking. An owner can engage earlier for a documented development objective, but procurement requiring demonstrated operation should remain conditional until the relevant milestone is observed.

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   - Candle's September xx.xx 2025 announcement identifies a management committee, participating network organizations, local landing responsibility, and operation scheduled for 2028. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))
2. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   - Petal assigns funding and operation to Meta, system construction to NEC Corporation, and Multicore Fiber supply to Sumitomo Electric Industries, Ltd., with operation scheduled for 2029. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))

4.7.3. Long-Term Market Outlook (5-10 Years)

■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■ ■■ ■■■■■ ■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■ ■ ■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ Owners should establish title, recovered-material rights, permitted removal scope, and residual responsibility before selecting a route. NOAA's sanctuary guidance permits case-specific consideration of leaving cable in place, so recovery should not be assumed a universal requirement or inevitable outcome within this horizon.

Public-connectivity programs also depend on the durability of operating institutions and domestic access. ■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ This broadens responsibility beyond asset delivery, while an additional connection remains appropriate where a documented international-access requirement persists.

Sources & Evidence

1. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The World Bank's FSM account combines international connectivity with domestic distribution and open-access institutions and identifies continuing institutional investment needs. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
2. Final Policy and Permit Guidance for Submarine Cable Projects
   · NOAA's national marine sanctuary guidance addresses removal funding and financial assurance while allowing case-specific consideration of leaving cable in place. This is jurisdiction-specific guidance, not a global retirement requirement. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))
3. Our Services - Mertech Marine
   · Mertech Marine markets retired-cable recovery, recycling, logistics, and depot services and describes acquiring out-of-service cable from owners. These establish distinct service and asset-transfer relationships. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))

4.8. Go-to-Market Strategy

A specialist entrant should first identify the immediate package purchaser. Fugro's disclosed SubCom relationship illustrates entry through a system supplier rather than an assumed ultimate beneficiary. ■■■■ ■■■■■ ■■ ■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■■ ■■■■■■■■ ■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■ ■■■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■

A monitoring provider lacking operator relationships can use a defined commercial-engagement partner rather than build every introduction independently. ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■ ■■■ ■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■ ■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■ ■■■■■■ ■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ Direct engagement is preferable where the provider already reaches the authorized buyer.

■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■ ■■■■■■■■■■■ ■■■■■■■■ Suppliers should define permitted users, information handoffs, support, and renewal responsibility before commitment. A connected suite can simplify continuity, while independently selected applications remain an alternative where exchange and access rights are documented.

Public-procurement entrants should select their bidding role only after reviewing the governing documents. Under World Bank regulations, affiliate credentials are not automatically the named bidder's qualifications, and specialist-subcontractor contributions

require permission. ■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■ ■■ ■■■■■■■■■■ ■■ ■■■■■■■■ ■ ■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■ ■■■■ ■■■■■■■ ■■■ ■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■ ■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■■■■ ■■■■■■■■■

Commercial proposals should use USD and price against defined package responsibilities and service entitlements. ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■ ■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■ ■■■■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ Do not conceal owner-retained work or recurring obligations inside an apparently equivalent scope.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC's complete-system undertaking supports distinguishing specialist package entry from assuming consolidated system responsibility. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN's separately described optional services and renewals support scope-based commercial proposals that distinguish initial commitments from continuing support. The recommendation does not assert prevailing market terms.
   ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
3. MakaiPlan
   · Makai markets connected planning and marine software, project-information exchange, training, and a software helpdesk. These offerings do not establish customer-specific continuing access or license-transfer rights. ([makai.com](https://www.makai.com/cable-software/makaiplan/))
4. Procurement Regulations for IPF Borrowers, Seventh Edition, September 2025
   · World Bank procurement regulations assess the named applicant's qualifications and do not automatically attribute affiliate credentials. Specialist-subcontractor contributions require documentary permission; prequalification is optional.
   ([thedocs.worldbank.org](https://thedocs.worldbank.org/en/doc/c84273d1b230aeb2b0b8134de5dc8cd7-xx.xx/original/Procurement-Regulations-7th-Edition-Sep-2025.pdf))
5. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   · Fugro's September xx.xx 2026 disclosure identifies SubCom as its contractual customer for the reported Argentina telecommunications-cable survey, establishing a system-supplier channel for that specialist package.
   ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
6. FiberSense engages APTelecom for accelerated commercial distribution of its groundbreaking DigitalMarine service
   · FiberSense's September xx.xx 2024 announcement appoints APTelecom LLC to engage prospective customers, supporting an outreach contribution without establishing service-contract authority or operating responsibility.
   ([fibersense.com](https://fibersense.com/wp-content/uploads/2024/xx.xx/Press-release_APT_FS_Subsea.pdf))
7. APTelecom and FiberSense Advance Subsea Cable Monitoring Capabilities Through Strategic Collaboration
   · The firms' April 2026 statement describes continuing operator engagement, stakeholder access, and international commercial development. These are reported channel contributions, not assured procurement access.
   ([aptelecom.com](https://aptelecom.com/aptelecom-and-fibersense-advance-subsea-cable-monitoring-capabilities-through-strategic-collaboration/))

5. Market Insights

5.1. Consumer Insights & End-User Perspective

Purchasing begins with the network requirement and the entity authorized to commit expenditure. ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ Suppliers should establish the contracting entity, authorized decision-maker, and acceptance responsibility before treating a participant's stated interest as an actionable purchase.

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Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore
   · Candle's announcement identifies participating network organizations, a management committee, and a local landing-party role; these establish distinct commercial constituencies rather than unilateral purchasing authority. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena announced Angola Cables' planned equipment and network-control software deployment on MONET and SACS, supporting an installed-system purchasing example rather than evidence of a newly constructed route.
   ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
3. Procurement Regulations for IPF Borrowers, Seventh Edition, September 2025
   · World Bank procurement regulations make prequalification optional according to procurement circumstances and identify eligibility, experience, capability, and financial resources as criteria.
   · Qualifications of affiliated firms or subcontractors are not automatically attributable to the applicant; permitted specialized-subcontractor exceptions depend on the procurement documents.
   ([thedocs.worldbank.org](https://thedocs.worldbank.org/en/doc/c84273d1b230aeb2b0b8134de5dc8cd7-xx.xx/original/Procurement-Regulations-7th-Edition-Sep-2025.pdf))

5.2. Consumer Experience Benchmarking

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[redacted] Buyers should compare documented supplier eligibility, acceptance responsibility, and continuing support for the same installed system. Broader vendor choice is useful only when the owner can manage the additional contractual interfaces; a standard does not establish system-specific qualification.

Service experience requires a separate comparison. ASN distinguishes included remote-support coverage from optional around-the-clock assistance and accelerated replacement. [redacted]

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN distinguishes included remote-support coverage from optional around-the-clock support and accelerated replacement services. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · ITU-T G.xx.xx states a multivendor transmission-equipment objective; it does not establish qualification for an individual installed system. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
3. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Global Marine describes dedicated call-out coverage and depot services under ACMA; these are marine-service commitments, not equipment-support equivalents. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))

5.3. Opportunity Mapping

[redacted] Multivendor standards support choice, but incumbent qualification, acceptance authority, and continuing support remain account-access gates. A new-system route is preferable when the requirement is an independent physical connection rather than improvement of an existing one.

[redacted] Capture depends on site-use rights, onward interconnection, provider access, and equipment-supplier handoffs. Owner-controlled construction remains an alternative where control requirements outweigh the benefit of outsourcing.

[redacted] In Europe, the February 2026 Baltic pilot restricted grant applicants to public emergency-response entities. Private providers need an identified public purchasing relationship; the historical call is not a current vendor appointment.

Owner representation is accessible where disaggregation creates a funded coordination need. [redacted] An owner with adequate internal capability may keep this work in-house; an owner unwilling to fund coordination should compare consolidated delivery instead.

Scientific sensing merits pursuit when a sponsor purchases a defined additional deliverable. [redacted] Asset-specific contractual and operating evidence is required before committing on that basis.

Public and institutional demand should be screened by procurement stage and package. EMCS handover provides a delivered public-connectivity reference; the FSM experience separately demonstrates the importance of operating institutions and domestic access. [redacted]

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google identifies DC BLOX and Telxius as planned landing partners for Sol. These customer-confirmed roles support landing-service opportunity assessment, not completed facility acceptance or outside-customer connectivity access.
   ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The announced MONET and SACS purchase supports targeting an identified operator's installed-network requirement; access to another operator remains conditional on its approvals and contract.
   ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))

3. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
   · NEC reported EMCS completion and handover to receiving operators on May xx.xx 2026, establishing a delivered public-connectivity reference rather than merely proposed construction. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))
4. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The FSM example supports assessing operating and domestic-access commitments alongside a public connectivity purchase; it does not establish identical constraints in every island jurisdiction. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))
5. CEF-Digital new call open: €20 million to ensure fast emergency repair of submarine cables in the Baltic Sea
   · The February xx.xx 2026 Baltic repair pilot restricted applicants to public entities with an emergency-response mandate. Its application deadline was May xx.xx 2026; the call does not establish a private vendor appointment. ([hadea.ec.europa.eu](https://hadea.ec.europa.eu/news/cef-digital-new-call-open-eu20-million-ensure-fast-emergency-repair-submarine-cables-baltic-sea-2026-xx.xx-05_en))
6. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · The multivendor objective supplies a premise for conditional terminal-account access, while leaving actual purchasing rights and acceptance responsibilities to verification. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
7. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Published maintenance-zone scope and additional-work conditions support checking the scheduled asset, excluded sections, and approval arrangements before purchasing complementary coverage. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
8. Project Management
   · Pioneer's project-management offering includes coordination among partners, schedule integration across contracts, contract review, and separately identified representation services; a portfolio does not establish delegated owner authority. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/project-management/))
9. DigitalMarine
   · DigitalMarine is marketed with alerting, vessel-identification integration, and continuing network-operations support, supporting a managed-monitoring purchasing format. No advertised investment-return claim is used. ([fibersense.com](https://fibersense.com/digitalmarine/))
10. IP e ASN assinam contrato para construção de Novo Anel CAM
    · The contracted SMART component supports sponsor-specific scientific procurement, not automatic funding or completed operation for another sensing proposal. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))
11. Alcatel Submarine Networks (ASN) commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    · ASN's March xx.xx 2023 release describes development combining SMART and other sensing technologies; it does not identify a completed operating asset with both purchased sensing scopes. ([asn.com](https://www.asn.com/press-release/alcatel-submarine-networks-asn-commences-development-of-climate-change-solution-by-integrating-scientific-sensors-and-sensing-technologies-into-submarine-telecom-systems/))
12. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    · The University of Hawai‘i's July xx.xx 2024 notice identifies a grant-linked requirement for Hawaiki landing-station access and colocation, demonstrating an institutional package distinct from complete cable construction. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))

13. FiberSense and Southern Cross announce deployment of shore-end monitoring on New Zealand subsea network portion
    · FiberSense reports implementation on Southern Cross Cable Network's New Zealand shore-end infrastructure and associated terrestrial connections; further rollout is described separately as planned. ([fibersense.com](https://fibersense.com/news/fibersense-and-southern-cross-cable-networks/))
14. Submarine Cable Networks | VIAVI Solutions Inc.
    · VIAVI Solutions Inc. markets monitoring equipment and software and describes bounded submarine applications, including the first segment of amplified links. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/submarine-cable-networks))
15. Subsea Landing Solutions - Telxius
    · The landing-services portfolio supports comparing purchased facility operation with owner-developed infrastructure; it does not establish an individual customer's site-use or provider-access rights. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))

5.4. Distribution Channel Analysis

[illegible] An integrator can consolidate interfaces; direct specialist purchasing preserves package-level choice but requires owner coordination. A landing host can address facilities and onward interconnection, but its participation does not confer authority to approve the system purchase or establish the equipment supplier's support obligations.

Marine maintenance has distinct regional channels. [illegible] Cooperative participation provides an established shared arrangement; private contracting requires separately negotiated obligations and should not be assumed to provide superior priority.

[illegible] Private providers therefore needed a separate commercial purchasing relationship rather than direct grant eligibility. Suppliers evaluating comparable initiatives should first identify the eligible public customer and its procurement authority; program funding alone does not establish a vendor award or an asset owner's repair entitlement.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC markets end-to-end submarine-system solutions extending through maintenance, establishing a consolidated delivery offering rather than universal rights to every landing or subcontracted package. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. CEF-Digital new call open: €20 million to ensure fast emergency repair of submarine cables in the Baltic Sea
   · The February 2026 Baltic emergency-repair call restricted applicants to public entities with an emergency-response mandate; this does not establish direct grant eligibility or appointment of private suppliers. ([hadea.ec.europa.eu](https://hadea.ec.europa.eu/news/cef-digital-new-call-open-eu20-million-ensure-fast-emergency-repair-submarine-cables-baltic-sea-2026-xx-xx-05_en))

3. Subsea Telecommunications Fibre Optic Cable Maintenance
   · ACMA is described as a member-run cooperative, with specified coverage and management approval for certain additional activities.
   ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
4. Monet Submarine Cable Selects Equinix for Landing Station and Next-Generation Digital Gateway to Latin America
   · Equinix's September xx.xx 2016 announcement identifies selection by MONET investors to provide U.S. landing facilities and services, alongside its interconnection platform; the event illustrates a separately contracted landing-host role.
   ([investor.equinix.com](https://investor.equinix.com/news-events/press-releases/detail/xx.xx/monet-submarine-cable-selects-equinix-for-landing-station))
5. Telecoms
   · Global Marine offers maintenance through cable-maintenance zones or private maintenance agreements, establishing alternative contracting routes without establishing equivalent priority or remedies.
   ([globalmarine.co.uk](https://globalmarine.co.uk/our-markets/telecoms/))

5.5. Pricing Trend Analysis

Commercial comparisons depend on what the submarine-system agreement includes. Ciena's filing describes bundled product-and-service purchasing, while ASN distinguishes optional services and post-warranty support renewal. ■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■■■■■■■■■■■

Equipment negotiations also face opposing pressures. Ciena discloses competitive pricing pressure alongside tariff exposure, possible pass-through, and foreign-currency risks. ■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■ ■■ ■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN identifies optional services and support-contract renewal following warranty, supporting separate commercial treatment of initial delivery and continuing support.
   ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. Ciena Corporation Annual Report on Form 10-K for the Fiscal Year Ended November 1, 2025
   · Ciena's mandatory filing describes bundled product-and-service purchasing, competitive pricing pressure, potential tariff pass-through, customer-order deferral risks, and foreign-currency exposure. These disclosures concern Ciena's business, not uniform submarine-market contract terms.
   ([d18rn0p25nwr6d.cloudfront.net](https://d18rn0p25nwr6d.cloudfront.net/CIK-xx.xx/c178fc6c-a28c-421e-9a83-351bbaebaf3e.html))

5.6. Regulatory Compliance & Standards Framework

[redacted] The July xx.xx 2026 publication specifies September xx.xx 2026 for nondelayed provisions while listing amendments awaiting separate effective-date announcements. Buyers should verify the operative section, counterparty role, and license conditions before committing; neither global availability nor rule adoption establishes transaction eligibility.

[redacted] The obligation to grant an international-cable license does not remove applicable conditions or authorize the entire landing project. Owners should connect delivery commitments to the permissions governing the purchased works, without extending this jurisdictional example worldwide.

ITU-T G.xx.xx is an interoperability recommendation, not market-access authorization. ITU's patent policy accommodates patented standards under reasonable and nondiscriminatory licensing commitments. [redacted]

Sources & Evidence

1. Apply to lay cables
   · Marine Management Organisation guidance distinguishes international cable laying, license conditions, and associated works that may require authorization. Its stated licensing distinction is not a worldwide landing exemption. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))
2. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - Final Rule, 2025
   · The FCC's 2025 final rule adopts security-related submarine licensing changes, including equipment and service eligibility provisions, while distinguishing delayed implementation. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2025-xx.xx-xx.xx/pdf/2025-xx.xx.pdf))
3. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · The recommendation addresses interoperability, supporting its distinction from regulatory authorization and separate intellectual-property permissions. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
4. What is ITU-T's IPR policy?
   · ITU's patent policy allows patented technology in standards under reasonable and nondiscriminatory licensing commitments and provides declaration resources; it does not establish clearance for an individual product. ([itu.int](https://www.itu.int/net/ITU-T/info/answers.aspx?Fp=faqs.aspx&Qn=xx.xx&ewm=False))
5. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42
   · The July xx.xx 2026 publication adopts terminal-owner oversight and additional security conditions. It specifies September xx.xx 2026 for nondelayed provisions and separately lists amendments awaiting effective-date announcements. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))

5.7. ESG & Sustainability Analysis

Environmental differentiation spans the cable lifecycle and the marine-service package. ■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■ ■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■ ■ ■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■ ■■■■■ ■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■ Vessel renewal also requires investment and does not itself establish contractual availability.

■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■ ■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■ ■■■ ■■■■■■■■■■■■ A prepared plan does not establish completed consultation, community consent, financing approval, or construction completion. Sponsors should separately assign and fund implementation and confirm authority and funder requirements before treating development readiness as achieved.

■■■■■■ ■■■■■■■ ■■■■■■■ ■■ ■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■ ■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■ ■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ Public sponsors should link connectivity investment to domestic-access and operating commitments. This broadens the program beyond asset delivery, but it addresses the risk that international access fails to translate into usable services for intended beneficiaries.

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google describes Sol as a planned transatlantic cable connected with its network-resilience and interconnection objectives. Together with the installed-system example, this supports the analytical distinction between improving an existing asset and purchasing a new geographic connection. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology?utm_source=openai))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena's September xx.xx 2026 announcement describes planned equipment and network-control software deployment on existing MONET and SACS systems. It supports distinguishing installed-asset improvement from procuring a new physical connection; it does not establish asset-life extension. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
3. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The FSM program combines connectivity, domestic networks, and institutional reform. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

4. Orange Wholesale: a full-service, sustainable subsea operator
   · Orange Wholesale identifies installed-system improvements, cable repair, recovery of phased-out systems, and vessel replacement within its own environmental approach. This supports lifecycle-specific purchasing analysis, not a demonstrated whole-project environmental outcome. ([wholesale.orange.com](https://wholesale.orange.com/wholesale/en/news/orange-wholesale-a-full-service-subsea-operator.html))
5. Orange's new cable strengthens global connectivity
   · Orange describes Sophie Germain's shore-power connection capability and Cleanship certification. These are vessel-specific credentials, not evidence of an individual cable project's lifecycle result. ([orange.com](https://www.orange.com/en/our-news/oranges-newest-jewel-fleet-strengthen-global-connectivity))
   · Orange distinguishes investment in a newly built cable ship from conversion of an existing vessel, supporting a commercial investment trade-off without establishing customer-specific availability. ([orange.com](https://www.orange.com/en/our-news/oranges-newest-jewel-fleet-strengthen-global-connectivity))
6. Preliminary Environmental and Social Impact Assessment for the Bangladesh International (Bagha-1) Submarine Cable System
   · Hatfield describes safeguards-gap analysis, socioeconomic assessment, and preparation of an engagement and consultation plan for proposed Bagha-xx.xx landings in India and Bangladesh. ([hatfieldgroup.com](https://hatfieldgroup.com/projects/preliminary-environmental-and-social-impact-assessment-for-the-bangladesh-international-bagha-xx.xx-submarine-cable-system/))

5.8. Disruption & Risk Scenarios

[illegible] Exposed owners and suppliers should confirm transaction-specific applicability before award and allocate responsibility for required changes. The indicators are effective-date notices, license conditions, and counterparty-role changes; a universal geography-based exclusion is not supported.

A landing-delay scenario arises if a prospective facility or associated permission misses the milestone on which another package depends. [illegible] Delay is hypothetical, and an alternative station cannot be presumed available.

[illegible] Private coverage is an alternative to zone participation, but its label does not guarantee better priority. Monitoring and public security coordination remain complements, not substitutes for restoration entitlement.

A sponsor-withdrawal or data-permission scenario could leave additional sensing obligations unfunded or commercially unusable. ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■ ■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ A clearly separated connectivity-only purchase remains an alternative where no funded additional requirement exists; this does not exclude sensing categories from the market.

Sources & Evidence

1. Government Best Practices for Protecting and Promoting Resilience of Submarine Telecommunications Cables, Version 1.2
   · ICPC guidance identifies regional pooling of maintenance resources and repair delays associated with vessel, cabotage, and crewing restrictions. It also discusses common-event exposure where routes and landings cluster. ([iscpc.org](https://www.iscpc.org/documents/?id=xx.xx))
2. Apply to lay cables
   · Within the MMO remit, UK guidance distinguishes international cable laying, license conditions, and associated works requiring authorization; it does not establish unconditional landing-project permission. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))
3. Telecoms
   · Global Marine offers maintenance-zone participation and private maintenance agreements, establishing alternative contracting routes without demonstrating inherently superior incident priority. ([globalmarine.co.uk](https://globalmarine.co.uk/our-markets/telecoms/))
4. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42
   · The FCC's July xx.xx 2026 publication addresses terminal-owner oversight and security conditions, specifies September xx.xx 2026 for nondelayed provisions, and lists amendments awaiting separate effective-date announcements. It also provides conditional processing simplification. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))
5. IP e ASN assinam contrato para construção de Novo Anel CAM
   · The connectivity owner and scientific collaborator have identifiable distinct roles, supporting explicit funding and continuing-responsibility allocation in a hypothetical sponsor-withdrawal scenario. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))
6. Alcatel Submarine Networks (ASN) commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
   · The development announcement supports separating additional scientific and monitoring purposes from ordinary connectivity obligations; funding withdrawal remains a hypothetical scenario. ([asn.com](https://www.asn.com/press-release/alcatel-submarine-networks-asn-commences-development-of-climate-change-solution-by-integrating-scientific-sensors-and-sensing-technologies-into-submarine-telecom-systems/))
7. Cable Landing Stations - DC BLOX
   · The prospective Palm Coast milestone supports a conditional facility-delay scenario and milestone-linked commitments, not a conclusion that delay has occurred. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))

5.9. Return on Investment & Cost-Benefit Analysis

For an asset owner, the upgrade case is strongest when a qualified equipment-and-software purchase satisfies the actual installed-route requirement. ■■ ■■■ ■■■■■ ■■■■■■■■■■■ ■ ■■■

RESEARCH SAMPLE REPORT

[illegible] An equipment renewal should not be treated as an asset-life extension without an explicit continuing-service commitment.

For procurement-model selection, package choice must justify the coordination obligations it creates. [illegible] The investment case should compare equivalent undertakings, retained responsibilities, change controls, and acceptance remedies rather than assume that fewer contracts or greater supplier choice is inherently more economical.

For monitoring, value depends on whether purchased information supports an authorized response over the contracted asset boundary. [illegible] Retaining existing supervision remains an alternative if the additional service does not close a documented decision or coverage gap.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · The end-to-end offering provides a consolidated alternative to independently purchased packages; individual retained responsibilities still require contractual definition. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · Standard-supported vendor choice is distinct from an owner's approved equipment undertaking, supporting a qualification condition in the upgrade investment comparison. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
3. DigitalMarine
   · The marketed monitoring-service format supports evaluating externally assisted supervision, but does not establish customer-specific protection outcomes or marine-restoration rights. ([fibersense.com](https://fibersense.com/digitalmarine/))
4. Crosslake Fibre
   · Pioneer's Crosslake Fibre case describes independently selected contractors, interdependent deadlines, and consolidation of project-management oversight across marine, terrestrial, and operating interfaces. ([pioneerconsulting.com](https://www.pioneerconsulting.com/case_studies/crosslake-fibre-a-unique-submarine-cable-beneath-lake-ontario-connecting-toronto-to-buffalo/))
5. How GeoMesh Extreme Works
   · The selectable equipment-and-services portfolio supports comparing an installed-asset purchase with broader construction obligations; it does not establish customer-specific savings or eliminate marine dependencies. ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))

6. FiberSense and Southern Cross announce deployment of shore-end monitoring on New Zealand subsea network portion
   · The reported implementation has a defined shore-end scope and cannot establish whole-route protection or another customer's avoided losses.
   ([fibersense.com](https://fibersense.com/news/fibersense-and-southern-cross-cable-networks/))
7. Submarine Cable Networks | VIAVI Solutions Inc.
   · The separately marketed monitoring portfolio supports an internally administered alternative to managed assistance, subject to the stated application boundary and customer-specific integration obligations.
   ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/submarine-cable-networks))

6. Cumulative Impact of Artificial Intelligence 2026

AI affects submarine investment both as a connectivity demand source and as a software purchasing consideration. ■■■■■■ ■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■ ■■■■■ ■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■ ■ ■■■■■■■■■ ■■■■ ■■■ ■ ■■■■■■■■■ ■■ ■■■■■■■ Buyers should distinguish an installed-network requirement from geographic diversity before choosing upgrades or new-system procurement.

■■■■■ ■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■ ■■■ ■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ The commercial role is decision support within an existing operator environment; it does not replace marine repair entitlement. Ciena separately markets AI capabilities in Navigator, but portfolio availability should not be treated as evidence that every cable operator has deployed them.

Implementation shifts purchasing attention toward integration, data permissions, accountability, and workforce readiness. NIST's voluntary governance guidance addresses human involvement, organizational responsibilities, staff competencies, and third-party risk. ■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■ ■ ■■■■■■■■■■ ■■■■■ ■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google links planned Sol investment to cloud and AI services, reliability, and terrestrial interconnection; the announcement does not establish completed operation or an exclusively AI-specific purchasing requirement. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. An industry first in subsea cable protection
   · On April xx.xx 2026, Starboard reported completed integration of its AI-driven vessel-risk alerts into Ciena Navigator at Southern Cross's Network Operations Centre. This supports a reported deployment, not general efficacy or autonomous repair. ([starboardintelligence.com](https://www.starboardintelligence.com/articles/an-industry-first-in-subsea-cable-protection))
3. Navigator Network Control Suite
   · Ciena markets AI and agentic capabilities in Navigator Network Control Suite for network assurance and related operator activities; portfolio availability does not establish every customer's deployment. ([ciena.com](https://www.ciena.com/products/navigator-ncs))

4. AI Risk Management Framework
   - NIST identifies its AI Risk Management Framework as voluntary guidance for incorporating trustworthiness considerations; it is not a regulatory approval. ([nist.gov](https://www.nist.gov/itl/ai-risk-management-framework))
5. NIST AI RMF Playbook: Govern
   - NIST's governance guidance addresses organizational responsibilities, human involvement, staff competencies, legal considerations, and third-party risks, supporting conditional procurement safeguards for cable-network AI software. ([airc.nist.gov](https://airc.nist.gov/airmf-resources/playbook/govern/))

7. Submarine Communication Cable System Market, by Product and Service Offering

Product and Service Offering separates purchases with different customers and accountability boundaries. [redacted] Component entrants should establish whether the relevant procurement authority is the system supplier or the asset owner before pursuing an award; a component portfolio does not establish eligibility for complete-system delivery.

[redacted] Buyers should distinguish software-use rights, project-data access, support, and equipment responsibility rather than assume that every software function is licensed independently. FiberSense's managed monitoring offering provides an alternative service format, but it does not establish equivalent customer control over the underlying software.

Landing Infrastructure Works and continuing facility access solve different purchasing problems. [redacted] Owners should decide whether they need construction, continuing access, or both, and compare the resulting responsibilities rather than presume that separate categories require separate contracts.

Professional and Integration Services can provide owner-side capabilities when equipment and marine packages are purchased separately. Pioneer Consulting offers Feasibility and System Engineering, Environmental Assessment and Permitting oversight, Procurement and Contract Advisory, Project Management and Owner Representation, quality-assurance oversight, and implementation support relevant to System Integration and Commissioning.

[redacted] Vessel Charter and Marine Support is a further access relationship: the disclosed 2012 Cable Retriever agreement distinguishes vessel ownership from chartered use, without establishing present availability. Owners should verify the work covered, authorization requirements, and enforceable vessel access rather than treat a charter, an installation award, and a maintenance entitlement as equivalent.

Operational Support Services connects facilities, equipment, and marine coverage without making them substitutes. Cable Landing Hosting and Facility Operations provides the facility relationship; Network Monitoring and Technical Support addresses continuing oversight and assistance; Equipment Maintenance and Repair covers equipment obligations; Cable Logistics and Depot Services provides storage and logistics support. [redacted]

Figure 8. Global Submarine Communication Cable System Market Size, by Product and Service Offering, 2025 (%)

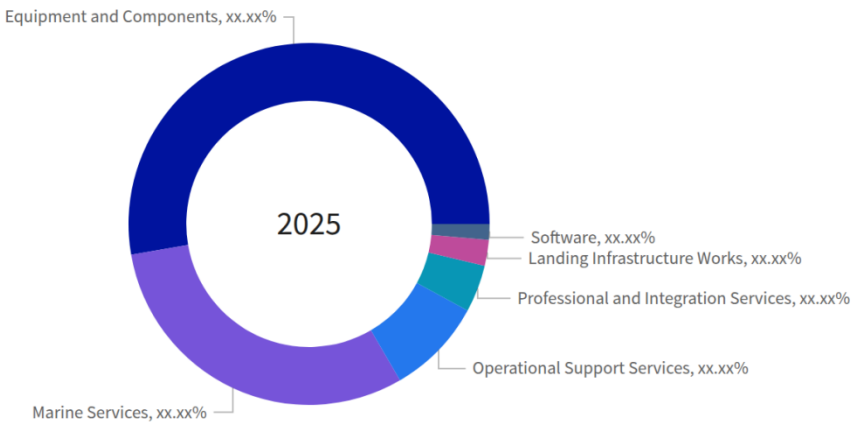


Figure 9. Global Submarine Communication Cable System Market, by Product and Service Offering, 2032 (USD Million)

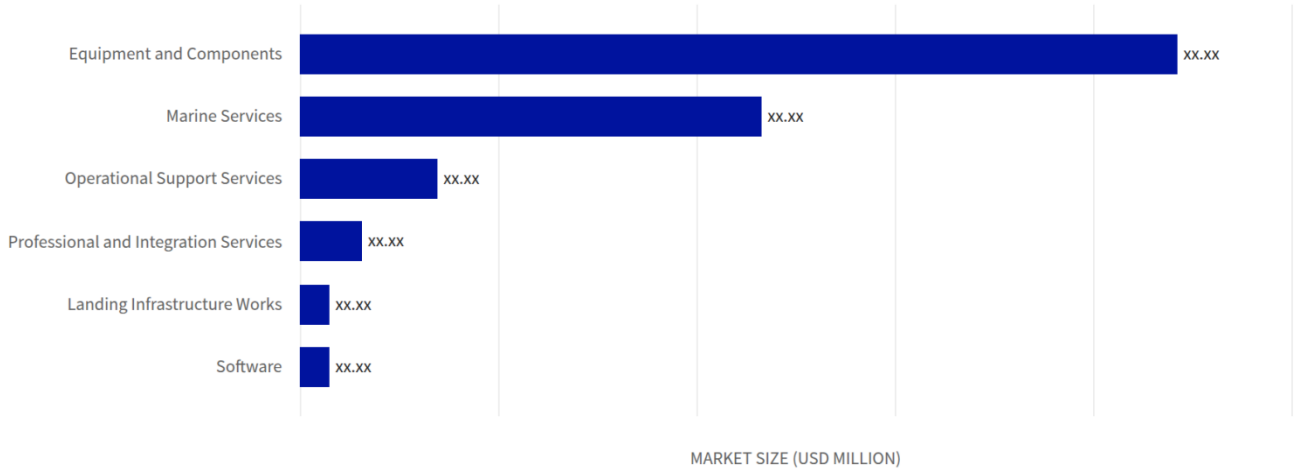


Table 4. Global Submarine Communication Cable System Market, by Product and Service Offering growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 5. Global Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions

   · NEC publicly offers end-to-end submarine-system delivery extending through maintenance, establishing a consolidated offering distinct from a component-only role. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))

2. ASN End to End Services & Solutions for Submarine Cable Systems

   · ASN distinguishes warranty support, optional support and replacement services, post-warranty renewal, marine coordination, and other lifecycle offerings. These distinctions support checking exclusions rather than equating equipment support with marine entitlement. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.

3. MakaiPlan

   · Makai markets submarine cable-planning software and describes collaborative project-data access and handoffs to its marine software products. This establishes a software offering, not customer-specific licensing terms. ([makai.com](https://www.makai.com/cable-software/makaiplan/))

4. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System

   · Petal's announcement assigns funding and operation to Meta, system construction to NEC, and multicore fiber supply to Sumitomo Electric, establishing distinct purchasing and supply roles. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))

   · Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

5. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena's September xx.xx 2026 announcement describes Angola Cables' planned equipment and Navigator software deployment on existing MONET and SACS infrastructure. This supports operator equipment-and-software procurement, not completed implementation. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
6. Fiber sensing (DAS)
   · ASN offers fiber-sensing equipment with processing software and customer support, supporting distinct equipment, software, and service responsibilities. ([asn.com](https://www.asn.com/fiber-sensing/))
7. Introducing Our New Eco-Friendly Cable Recovery Ship
   · Subsea Environmental Services reports SEA-ME-WE-xx.xx recovery work, establishing a retirement-related marine business activity distinct from initial cable installation. ([subsea.cc](https://subsea.cc/news/introducing-our-new-eco-friendly-cable-recovery-ship/))
8. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Global Marine describes maintenance agreements, depot support, and associated survey and improvement services, with additional activities subject to agreement authority. Portfolio descriptions do not establish an individual owner's repair priority. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
9. Monet Submarine Cable Selects Equinix for Landing Station and Next-Generation Digital Gateway to Latin America
   · Equinix's September xx.xx 2016 announcement records MONET investors' selection of its U.S. landing facilities and services, illustrating a facility-access purchase separate from cable equipment supply. ([investor.equinix.com](https://investor.equinix.com/news-events/press-releases/detail/xx.xx/monet-submarine-cable-selects-equinix-for-landing-station))
10. Recommendation ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    · ITU-T G.xx.xx distinguishes terminal transmission, power-feeding, supervisory, cable, repeater, branching-unit, and joint equipment within submarine systems. This supports equipment-scope distinctions, not supplier eligibility. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
    · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
11. Federated States of Micronesia Connectivity Project (P130592) - Procurement Plan
    · The Micronesia procurement plan identifies landing-station foundations and connections from beach manholes to stations, with canceled entries that cannot establish completion. It separately lists submarine-equipment upgrade and repair. ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/P130592-8dfba0cd-1a41-xx.xx-b846-ee06aa972975.pdf))
12. Disaggregated System Supply
    · Pioneer Consulting offers engineering, survey coordination, permitting oversight, procurement formation, implementation, and project management for disaggregated submarine-system purchases. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
13. Procurement
    · Pioneer describes supplier evaluation, bidder interaction, preferred-bidder recommendation, negotiation, and contract formation as procurement advisory services. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/procurement/))

14. Project Management
    - Pioneer offers coordination across contracts, owner representation, quality-plan oversight, integration oversight, and commissioning and acceptance representation. These offerings do not themselves establish delegated owner authority. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/project-management/))
15. Supplemental Charter Agreement - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - The disclosed Cable Retriever charter distinguishes International Cableship's vessel ownership from Global Marine Systems' chartered use. The historical agreement supports a vessel-access category, not present availability. ([sec.gov](https://www.sec.gov/Archives/edgar/data/xx.xx/xx.xx/d778621dex1091.htm))
16. Submarine Cable Services
    - ACMA describes contractual depot storage separately from repair and maintenance-improvement services, with approval requirements for improvement work. This supports distinct service entitlements. ([acma2017.com](https://www.acma2017.com/services/submarine-cable-services/))
17. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Portugal's November xx.xx 2025 resolution retains distinct construction, supervision, and transmission-equipment purchases while directing concentration of station rental, operation, and maintenance in the same contract and operator. ([diariodarepublica.pt](https://diariodarepublica.pt/dr/detalhe/resolucao-conselho-ministros/xx.xx-2025-xx.xx))
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
18. DigitalMarine
    - FiberSense markets a submarine monitoring service with network-operations support, establishing a managed-service format without proving equivalent software-control rights. ([fibersense.com](https://fibersense.com/digitalmarine/))
19. Recommendation ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
    - ITU-T G.xx.xx recognizes communication-capable submarine systems equipped with scientific monitoring sensors, supporting the distinct role of integrated scientific sensor packages. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
20. Resolução do Conselho de Ministros n.º 18/2023, de 13 de fevereiro
    - Taxonomy evidence: Authorizes separate Atlantic CAM purchases for system construction, works supervision, transmission equipment, and landing-station rental, supporting deliverable-based allocation.
21. Nokia in 2024 - Annual Report on Form 20-F
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

22. Nokia Annual Report on Form 20-F 2021
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

23. TE Connectivity Ltd. 2018 Annual Report
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

24. NEC Financial Results for the First Quarter Ended June 30, 2025
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

25. NEC Financial Results for the Fiscal Year Ended March 31, 2026
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

26. SubCom of Newington plans multi-million-dollar expansion
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
- Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

27. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
28. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
29. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
30. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
31. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

32. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
33. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
34. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
35. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
36. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
37. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.

7.1. Equipment and Components

Table 6. Global Submarine Communication Cable System Market, by Equipment and Components growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 7. Global Submarine Communication Cable System Market Size, by Equipment and Components, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 8. Global Submarine Communication Cable System Market Size, by Equipment and Components, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 9. Global Submarine Communication Cable System Market Size, by Equipment and Components, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Defines distinct submerged and terminal equipment elements of optical submarine systems.

2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.

31. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

7.1.1. Submarine Communications Cables

Table 10. Global Submarine Communication Cable System Market Size, by Submarine Communications Cables, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 11. Global Submarine Communication Cable System Market Size, by Submarine Communications Cables, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 12. Global Submarine Communication Cable System Market Size, by Submarine Communications Cables, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes repeatered and repeaterless submarine communications cable constructions.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.1.2. Terminal Transmission Equipment

Table 13. Global Submarine Communication Cable System Market Size, by Terminal Transmission Equipment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 14. Global Submarine Communication Cable System Market Size, by Terminal Transmission Equipment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 15. Global Submarine Communication Cable System Market Size, by Terminal Transmission Equipment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Defines terminal transmission equipment as a system element.
2. Resolução do Conselho de Ministros n.º 18/2023, de 13 de fevereiro
   - Taxonomy evidence: Transmission equipment is procured separately from the main construction contract.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
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20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.

7.1.3. Repeaters and Optical Amplifiers

Table 16. Global Submarine Communication Cable System Market Size, by Repeaters and Optical Amplifiers, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 17. Global Submarine Communication Cable System Market Size, by Repeaters and Optical Amplifiers, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 18. Global Submarine Communication Cable System Market Size, by Repeaters and Optical Amplifiers, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes optical submarine repeaters and amplification elements.
2. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Identifies remote optical amplifiers as recognized submarine-system components.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.

15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.

16. IP e ASN assinam contrato para construção de Novo Anel CAM
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.

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- Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
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- Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

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- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

7.1.4. Power-Feeding Equipment

Table 19. Global Submarine Communication Cable System Market Size, by Power-Feeding Equipment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 20. Global Submarine Communication Cable System Market Size, by Power-Feeding Equipment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 21. Global Submarine Communication Cable System Market Size, by Power-Feeding Equipment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes power-feeding equipment and cable-system power functions.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.1.5. Supervision, Monitoring, and Sensing Equipment

Table 22. Global Submarine Communication Cable System Market, by Supervision, Monitoring, and Sensing Equipment growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 23. Global Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 24. Global Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 25. Global Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes maintenance controllers and submarine-system monitoring equipment.
2. Nokia in 2024 - Annual Report on Form 20-F
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
31. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.

7.1.5.1. Transmission Supervision and Test Equipment

Table 26. Global Submarine Communication Cable System Market Size, by Transmission Supervision and Test Equipment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 27. Global Submarine Communication Cable System Market Size, by Transmission Supervision and Test Equipment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 28. Global Submarine Communication Cable System Market Size, by Transmission Supervision and Test Equipment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   - Taxonomy evidence: Separates transmission-performance supervision, fault location, and electrical monitoring functions.
2. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Lists specialist optical test equipment as a cable-system purchase.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.1.5.2. Fiber Sensing Equipment

Table 29. Global Submarine Communication Cable System Market Size, by Fiber Sensing Equipment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 30. Global Submarine Communication Cable System Market Size, by Fiber Sensing Equipment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 31. Global Submarine Communication Cable System Market Size, by Fiber Sensing Equipment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.

7.1.5.3. Integrated Scientific Sensor Packages

Table 32. Global Submarine Communication Cable System Market Size, by Integrated Scientific Sensor Packages, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 33. Global Submarine Communication Cable System Market Size, by Integrated Scientific Sensor Packages, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 34. Global Submarine Communication Cable System Market Size, by Integrated Scientific Sensor Packages, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.

7.1.6. Branching Units

Table 35. Global Submarine Communication Cable System Market Size, by Branching Units, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 36. Global Submarine Communication Cable System Market Size, by Branching Units, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 37. Global Submarine Communication Cable System Market Size, by Branching Units, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems
   - Taxonomy evidence: Defines branching units, including optical add/drop variants.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.1.7. Cable Joints and Passive Accessories

Table 38. Global Submarine Communication Cable System Market Size, by Cable Joints and Passive Accessories, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 39. Global Submarine Communication Cable System Market Size, by Cable Joints and Passive Accessories, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 40. Global Submarine Communication Cable System Market Size, by Cable Joints and Passive Accessories, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes cable joints as submarine-system elements.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
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    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

30. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.

7.1.8. Submarine Optical Fiber

Table 41. Global Submarine Communication Cable System Market Size, by Submarine Optical Fiber, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 42. Global Submarine Communication Cable System Market Size, by Submarine Optical Fiber, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 43. Global Submarine Communication Cable System Market Size, by Submarine Optical Fiber, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.654 (08/2024): Characteristics of a cut-off shifted single-mode optical fibre and cable
   - Taxonomy evidence: Distinguishes optical-fiber attributes from delivered cable attributes and identifies submarine systems among the intended applications. Only dedicated submarine-use purchases fall within the proposed offering.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
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- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
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26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.2. Marine Services

Table 44. Global Submarine Communication Cable System Market, by Marine Services growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 45. Global Submarine Communication Cable System Market Size, by Marine Services, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 46. Global Submarine Communication Cable System Market Size, by Marine Services, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 47. Global Submarine Communication Cable System Market Size, by Marine Services, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1

   · Taxonomy evidence: The agreement distinguishes the vessel-owning entity from the charterer and makes hire payments a separate contractual obligation. This supports a marine-capacity work package within the retained Marine Services context, subject to attribution and single-count allocation. ([sec.gov](https://www.sec.gov/Archives/edgar/data/xx.xx/xx.xx/d778621dex1091.htm))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

2. Consultation Paper No. 15/2022: Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India - TRAI

   · Taxonomy evidence: The regulator distinguishes cable installation, maintenance, repair, and landing-party activities. Its historical consultation is used for category recognition, not as a statement of current licensing requirements.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

13. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.

32. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

7.2.1. Cable Installation and Protection

Table 48. Global Submarine Communication Cable System Market Size, by Cable Installation and Protection, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 49. Global Submarine Communication Cable System Market Size, by Cable Installation and Protection, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 50. Global Submarine Communication Cable System Market Size, by Cable Installation and Protection, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G.971 (12/2024): General features of optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes system installation as an implementation activity.
2. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
   - Taxonomy evidence: Recognizes cable installation and protective burial as distinct cable activities.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
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4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.2.2. Marine Maintenance and Repair

Table 51. Global Submarine Communication Cable System Market Size, by Marine Maintenance and Repair, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 52. Global Submarine Communication Cable System Market Size, by Marine Maintenance and Repair, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 53. Global Submarine Communication Cable System Market Size, by Marine Maintenance and Repair, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G.971 (12/2024): General features of optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes maintenance separately from installation and commissioning.
2. ICPC Membership Agreement - Issue 11
   - Taxonomy evidence: Defines a maintenance authority through contracted accountability for the marine cable portion.
3. Nokia in 2024 - Annual Report on Form 20-F
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    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
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20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

7.2.3. Vessel Charter and Marine Support

Table 54. Global Submarine Communication Cable System Market Size, by Vessel Charter and Marine Support, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 55. Global Submarine Communication Cable System Market Size, by Vessel Charter and Marine Support, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 56. Global Submarine Communication Cable System Market Size, by Vessel Charter and Marine Support, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1

   · Taxonomy evidence: The executed March xx.xx 2012 supplemental agreement records separately priced charter access to the cable-maintenance vessel CS Cable Retriever through an annual hire arrangement. It supports commercial vessel access distinct from vessel capital acquisition, not current project-level expenditure or 2025 sales. ([sec.gov](https://www.sec.gov/Archives/edgar/data/xx.xx/xx.xx/d778621dex1091.htm))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

2. Consultation Paper No. 15/2022: Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India - TRAI

   · Taxonomy evidence: Identifies vessel access and equipment-import support around cable maintenance. This corroborates support functions but does not establish separately priced charter or depot contracts.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.2.4. Marine Survey and Inspection

Table 57. Global Submarine Communication Cable System Market Size, by Marine Survey and Inspection, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 58. Global Submarine Communication Cable System Market Size, by Marine Survey and Inspection, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 59. Global Submarine Communication Cable System Market Size, by Marine Survey and Inspection, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
   - Taxonomy evidence: Recognizes marine field surveys supporting submarine telecommunications routes.
2. ICPC Membership Agreement - Issue 11
   - Taxonomy evidence: Defines a route-survey company by contracted marine survey work preceding installation.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.2.5. Cable Recovery and Removal

Table 60. Global Submarine Communication Cable System Market Size, by Cable Recovery and Removal, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 61. Global Submarine Communication Cable System Market Size, by Cable Recovery and Removal, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 62. Global Submarine Communication Cable System Market Size, by Cable Recovery and Removal, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.

7.3. Operational Support Services

Table 63. Global Submarine Communication Cable System Market, by Operational Support Services growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 64. Global Submarine Communication Cable System Market Size, by Operational Support Services, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 65. Global Submarine Communication Cable System Market Size, by Operational Support Services, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 66. Global Submarine Communication Cable System Market Size, by Operational Support Services, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement

   · Taxonomy evidence: The description separates depot storage from maintenance-improvement work and fault repair, supporting storage as an identifiable operational-support function rather than treating every storage cost as physical cable restoration. ([acma2017.com](https://www.acma2017.com/services/submarine-cable-services/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

31. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
32. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

7.3.1. Cable Landing Hosting and Facility Operations

Table 67. Global Submarine Communication Cable System Market Size, by Cable Landing Hosting and Facility Operations, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 68. Global Submarine Communication Cable System Market Size, by Cable Landing Hosting and Facility Operations, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 69. Global Submarine Communication Cable System Market Size, by Cable Landing Hosting and Facility Operations, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Resolução do Conselho de Ministros n.º 18/2023, de 13 de fevereiro
   - Taxonomy evidence: Landing-station rental is an expressly identified commercial purchase, distinct from transmission-capacity resale.

2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
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3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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7. SubCom of Newington plans multi-million-dollar expansion
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   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
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12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.

31. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

7.3.2. Equipment Maintenance and Repair

Table 70. Global Submarine Communication Cable System Market Size, by Equipment Maintenance and Repair, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 71. Global Submarine Communication Cable System Market Size, by Equipment Maintenance and Repair, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 72. Global Submarine Communication Cable System Market Size, by Equipment Maintenance and Repair, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Lists submarine equipment upgrade and repair as a signed procurement activity.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.

7.3.3. Network Monitoring and Technical Support

Table 73. Global Submarine Communication Cable System Market Size, by Network Monitoring and Technical Support, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 74. Global Submarine Communication Cable System Market Size, by Network Monitoring and Technical Support, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 75. Global Submarine Communication Cable System Market Size, by Network Monitoring and Technical Support, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   - Taxonomy evidence: Establishes ongoing system supervision and remote-maintenance functions as distinct from physical cable repair.
2. Southern Cross Cables Limited - DigitalMarine deployment update at Nedonna
   - Taxonomy evidence: The buyer describes monitoring alerts used by operating staff, supporting contracted monitoring as an operational deliverable.
3. DigitalMarine - FiberSense
   - Taxonomy evidence: Offers recurring subsea monitoring with network-operations support, establishing a managed-service format rather than proving separately sold analytics licenses.
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
6. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

10. NEC IR Day 2022 - Global Business
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
- Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

12. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

13. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

14. ICPC Media Enquiries & Frequently Asked Questions
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
16. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
17. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
18. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
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19. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

21. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
22. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
23. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
24. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
25. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
26. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

27. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
28. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
29. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
30. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
32. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.

7.3.4. Cable Logistics and Depot Services

Table 76. Global Submarine Communication Cable System Market Size, by Cable Logistics and Depot Services, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 77. Global Submarine Communication Cable System Market Size, by Cable Logistics and Depot Services, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 78. Global Submarine Communication Cable System Market Size, by Cable Logistics and Depot Services, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement

   · Taxonomy evidence: The cable-owner cooperative's submarine-cable service description identifies contractual depot storage of operational spares and separately listed storage rates. This establishes a commercial storage category; current renewal terms and prices are not established by the inspected description. ([acma2017.com](https://www.acma2017.com/services/submarine-cable-services/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.

2. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Definitions xx.xx and xx.xx recognize marine-depot or shipboard storage of submarine repeaters, branching-unit spares, and spare cable. This supports the retained depot-service function within communications-asset support, but the standard does not establish prices or a separately awarded storage contract.
   ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items)
)

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
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4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
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8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
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   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.4. Professional and Integration Services

Table 79. Global Submarine Communication Cable System Market, by Professional and Integration Services growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 80. Global Submarine Communication Cable System Market Size, by Professional and Integration Services, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 81. Global Submarine Communication Cable System Market Size, by Professional and Integration Services, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 82. Global Submarine Communication Cable System Market Size, by Professional and Integration Services, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Disaggregated System Supply - Pioneer Consulting
   - Taxonomy evidence: Separately describes system engineering, procurement formation, permitting oversight, project management, and implementation work.

2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
31. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.

32. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

7.4.1. System Integration and Commissioning

Table 83. Global Submarine Communication Cable System Market Size, by System Integration and Commissioning, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 84. Global Submarine Communication Cable System Market Size, by System Integration and Commissioning, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 85. Global Submarine Communication Cable System Market Size, by System Integration and Commissioning, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G.971 (12/2024): General features of optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes system commissioning as a distinct implementation activity.
2. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Separately identifies commissioning support and terminal-equipment relocation work.
3. Disaggregated System Supply - Pioneer Consulting
   - Taxonomy evidence: Identifies end-to-end system implementation as a service distinct from individual equipment purchases.
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
6. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.4.2. Project Management and Owner Representation

Table 86. Global Submarine Communication Cable System Market Size, by Project Management and Owner Representation, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 87. Global Submarine Communication Cable System Market Size, by Project Management and Owner Representation, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 88. Global Submarine Communication Cable System Market Size, by Project Management and Owner Representation, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Recognizes an overall cable-project manager as a distinct consulting purchase.
2. Project Management - Pioneer Consulting
   - Taxonomy evidence: Describes cable-project coordination, shipboard owner representation, schedule integration, and commercial milestone oversight.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

7.4.3. Feasibility and System Engineering

Table 89. Global Submarine Communication Cable System Market Size, by Feasibility and System Engineering, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 90. Global Submarine Communication Cable System Market Size, by Feasibility and System Engineering, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 91. Global Submarine Communication Cable System Market Size, by Feasibility and System Engineering, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Disaggregated System Supply - Pioneer Consulting
   - Taxonomy evidence: Identifies wet-plant engineering and analytical route-engineering assignments.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
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   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
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15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
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- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.4.4. Environmental Assessment and Permitting

Table 92. Global Submarine Communication Cable System Market Size, by Environmental Assessment and Permitting, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 93. Global Submarine Communication Cable System Market Size, by Environmental Assessment and Permitting, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 94. Global Submarine Communication Cable System Market Size, by Environmental Assessment and Permitting, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
   - Taxonomy evidence: Distinguishes environmental assessment from field route surveying.
2. Disaggregated System Supply - Pioneer Consulting
   - Taxonomy evidence: Identifies permitting oversight within separately assembled submarine-system delivery.
3. Consultation Paper No. 15/2022: Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India - TRAI
   - Taxonomy evidence: Identifies environmental and coastal clearances as separable cable-project concerns.
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
6. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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13. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
14. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
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23. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.4.5. Independent Quality Assurance

Table 95. Global Submarine Communication Cable System Market Size, by Independent Quality Assurance, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 96. Global Submarine Communication Cable System Market Size, by Independent Quality Assurance, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 97. Global Submarine Communication Cable System Market Size, by Independent Quality Assurance, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Resolução do Conselho de Ministros n.º 18/2023, de 13 de fevereiro
   - Taxonomy evidence: Works supervision is authorized as a separate service contract.
2. Project Management - Pioneer Consulting
   - Taxonomy evidence: Separately identifies product-assurance oversight, quality-plan review, and acceptance representation.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
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10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.

7.4.6. Procurement and Contract Advisory

Table 98. Global Submarine Communication Cable System Market Size, by Procurement and Contract Advisory, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 99. Global Submarine Communication Cable System Market Size, by Procurement and Contract Advisory, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 100. Global Submarine Communication Cable System Market Size, by Procurement and Contract Advisory, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Procurement - Pioneer Consulting
   - Taxonomy evidence: Describes submarine-system bid evaluation, supplier selection, commercial negotiation, and contract formation as advisory deliverables.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
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    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.5. Landing Infrastructure Works

Table 101. Global Submarine Communication Cable System Market, by Landing Infrastructure Works growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 102. Global Submarine Communication Cable System Market Size, by Landing Infrastructure Works, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 103. Global Submarine Communication Cable System Market Size, by Landing Infrastructure Works, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 104. Global Submarine Communication Cable System Market Size, by Landing Infrastructure Works, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Procurement descriptions separately identify landing-station foundations and beach-manhole-to-station works. Some historical entries are canceled and do not establish completed construction.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.

7.5.1. Cable Landing Station Construction and Fitout

Table 105. Global Submarine Communication Cable System Market Size, by Cable Landing Station Construction and Fitout, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 106. Global Submarine Communication Cable System Market Size, by Cable Landing Station Construction and Fitout, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 107. Global Submarine Communication Cable System Market Size, by Cable Landing Station Construction and Fitout, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Identifies landing-station construction and dedicated station power infrastructure.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
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7. SubCom of Newington plans multi-million-dollar expansion
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.5.2. Landfall Civil Works

Table 108. Global Submarine Communication Cable System Market Size, by Landfall Civil Works, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 109. Global Submarine Communication Cable System Market Size, by Landfall Civil Works, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 110. Global Submarine Communication Cable System Market Size, by Landfall Civil Works, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. World Bank procurement plan - Federated States of Micronesia Connectivity Project, P130592
   - Taxonomy evidence: Identifies dedicated civil connections between beach manholes and landing stations.
2. Nokia in 2024 - Annual Report on Form 20-F
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    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
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    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.6. Software

Table 111. Global Submarine Communication Cable System Market, by Software growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 112. Global Submarine Communication Cable System Market Size, by Software, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 113. Global Submarine Communication Cable System Market Size, by Software, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 114. Global Submarine Communication Cable System Market Size, by Software, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F

- Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
25. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
28. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
29. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.

30. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.

7.6.1. Network Control and Management Software

Table 115. Global Submarine Communication Cable System Market Size, by Network Control and Management Software, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 116. Global Submarine Communication Cable System Market Size, by Network Control and Management Software, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 117. Global Submarine Communication Cable System Market Size, by Network Control and Management Software, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   - Taxonomy evidence: Describes computer-based supervision and interfaces to network management. This supports the function, not separately priced software licenses.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
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   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.6.2. Cable Planning and Marine Operations Software

Table 118. Global Submarine Communication Cable System Market Size, by Cable Planning and Marine Operations Software, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 119. Global Submarine Communication Cable System Market Size, by Cable Planning and Marine Operations Software, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 120. Global Submarine Communication Cable System Market Size, by Cable Planning and Marine Operations Software, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. MakaiPlan - Makai Ocean Engineering
   - Taxonomy evidence: Markets dedicated submarine-cable route-planning software, corroborating a software deliverable distinct from engineering labor or cable equipment.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
2. ORE Seminar: Makai Ocean Engineering: An update on current projects - University of Hawai'i at Mānoa
   - Taxonomy evidence: The university's April 2026 seminar record describes proprietary planning and cable-installation software used for telecommunications cables. The description originates with the presenting supplier and is not independent market-share evidence.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
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   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
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- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
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- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

7.6.3. Sensing Data Processing and Analytics Software

Table 121. Global Submarine Communication Cable System Market Size, by Sensing Data Processing and Analytics Software, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 122. Global Submarine Communication Cable System Market Size, by Sensing Data Processing and Analytics Software, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 123. Global Submarine Communication Cable System Market Size, by Sensing Data Processing and Analytics Software, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
   - Taxonomy evidence: Specifies receiving, storing, and forwarding sensor data at land stations; separately purchased analytics software is not established by the standard alone.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.

8. Submarine Communication Cable System Market, by Repeater Architecture

Repeater Architecture changes the equipment and support boundary that a buyer must procure. Repeatered Systems include submerged repeaters and associated power-feeding equipment. ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■ ■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■■ ■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■

The architecture label is not a complete supplier-eligibility or operating-context decision. Xtera publicly offers both repeatered and unrepeatered systems, including turnkey delivery, redeployment, and upgrades. ■■■ ■■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■ ■■■■■■■ ■■■ ■■■■ ■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■ ■ ■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■ ■■■ ■■■■■ ■■■■■■ ■■■■■ ■ ■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■ ■■■■■■■■■ ■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■ ■■■■■ ■■ ■■■■■ ■■■■ ■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■

Figure 10. Global Submarine Communication Cable System Market Size, by Repeater Architecture, 2025 (%)

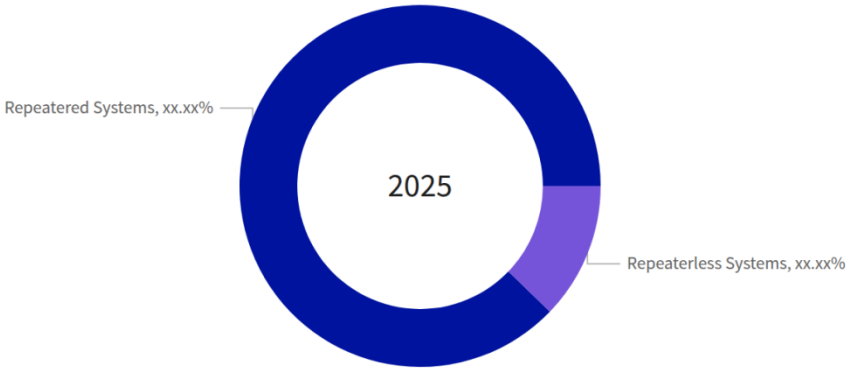


Figure 11. Global Submarine Communication Cable System Market, by Repeater Architecture, 2032 (USD Million)

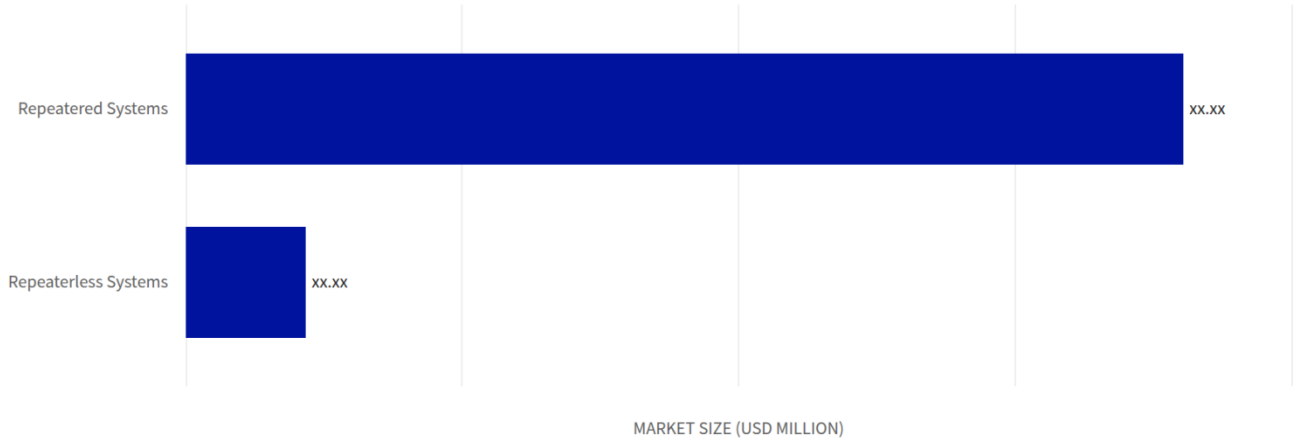


Table 124. Global Submarine Communication Cable System Market, by Repeater Architecture growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 125. Global Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems

   · The terminology recognizes repeatered and repeaterless cable constructions for shallow and deep water, supporting separation of architecture from water-depth classification. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

2. Recommendation ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems

   · ITU-T G.xx.xx recognizes repeaterless systems and remotely optically pumped amplifier applications within that classification. It supports distinguishing repeaterless configurations with and without submerged amplification. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

3. Experience
   - Xtera publicly offers repeatered and unrepeatered systems and describes turnkey, redeployment, and upgrade roles. This is evidence of overlapping supplier offerings, not universal system qualification. ([xtera.com](https://xtera.com/experience/))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
4. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Recognizes repeaterless submarine systems and their remotely optically pumped amplification variants.
5. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
6. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
7. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

8. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
9. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
10. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
11. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

13. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
14. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
15. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
16. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
17. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
18. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.

19. **Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System**
    · Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
20. **Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System**
    · Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

8.1. Repeatered Systems

Table 126. Global Submarine Communication Cable System Market Size, by Repeatered Systems, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 127. Global Submarine Communication Cable System Market Size, by Repeatered Systems, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 128. Global Submarine Communication Cable System Market Size, by Repeatered Systems, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   - Taxonomy evidence: Addresses repeatered optical submarine systems and their wet-plant and terminal interfaces.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

8.2. Repeaterless Systems

Table 129. Global Submarine Communication Cable System Market, by Repeaterless Systems growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 130. Global Submarine Communication Cable System Market Size, by Repeaterless Systems, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 131. Global Submarine Communication Cable System Market Size, by Repeaterless Systems, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 132. Global Submarine Communication Cable System Market Size, by Repeaterless Systems, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Provides the established repeaterless-system classification, including ROPA-assisted applications.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
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20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.

8.2.1. Repeaterless Systems Without Submerged Amplifiers

Table 133. Global Submarine Communication Cable System Market Size, by Repeaterless Systems Without Submerged Amplifiers, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 134. Global Submarine Communication Cable System Market Size, by Repeaterless Systems Without Submerged Amplifiers, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 135. Global Submarine Communication Cable System Market Size, by Repeaterless Systems Without Submerged Amplifiers, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Distinguishes repeaterless configurations without ROPA from configurations using submerged remote optical amplification.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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7. SubCom of Newington plans multi-million-dollar expansion
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9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

8.2.2. ROPA-Assisted Repeaterless Systems

Table 136. Global Submarine Communication Cable System Market Size, by ROPA-Assisted Repeaterless Systems, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 137. Global Submarine Communication Cable System Market Size, by ROPA-Assisted Repeaterless Systems, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 138. Global Submarine Communication Cable System Market Size, by ROPA-Assisted Repeaterless Systems, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.973 (11/2016): Characteristics of repeaterless optical fibre submarine cable systems
   - Taxonomy evidence: Treats ROPA as part of repeaterless submarine systems rather than electrically powered repeatered systems.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

9. Submarine Communication Cable System Market, by Terminal Interoperability

[redacted] Owners should translate that potential into an approved vendor set, documented acceptance responsibility, and continuing support for the particular system. A terminal supplier should establish those conditions before treating an open designation as an accessible replacement opportunity.

[redacted] Buyers seeking sourcing flexibility without managing every supplier interface can evaluate a consolidated offer, provided the present proposal documents equipment eligibility and end-to-end accountability. Independent purchasing preserves package-level choice but leaves more coordination with the owner.

[redacted] Retaining the incumbent may consolidate support, but that option should be compared with an explicitly qualified alternative rather than presumed mandatory. Public evidence does not settle the restrictions of an identified closed-interface contract, so system-specific switching conclusions remain unresolved.

Figure 12. Global Submarine Communication Cable System Market Size, by Terminal Interoperability, 2025 (%)

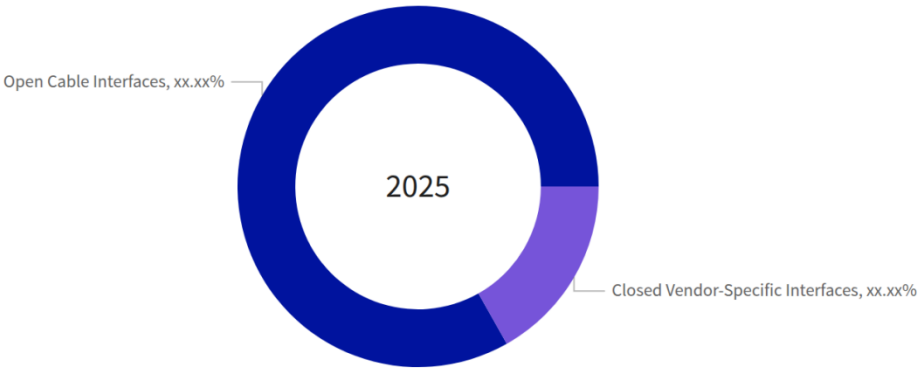


Figure 13. Global Submarine Communication Cable System Market, by Terminal Interoperability, 2032 (USD Million)

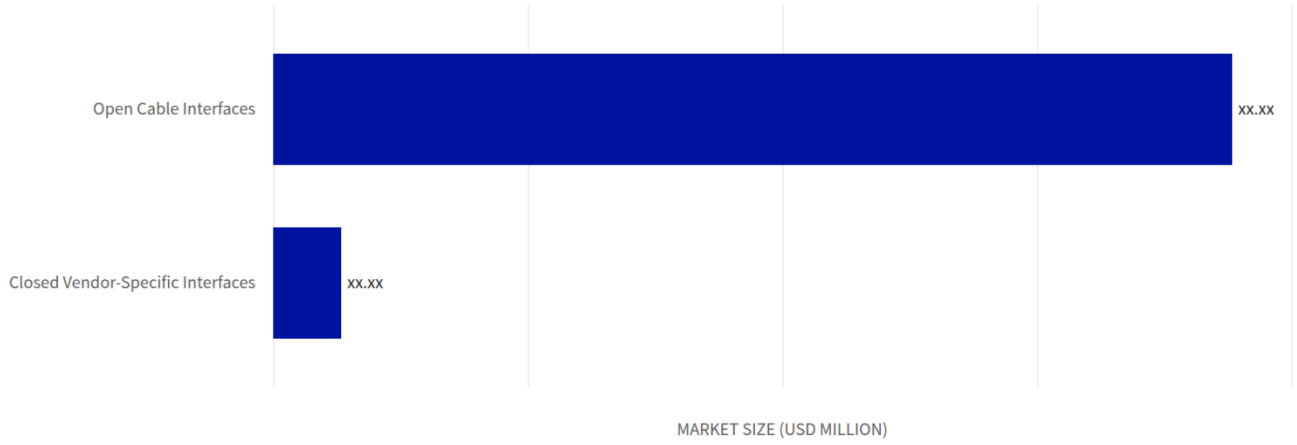


Table 139. Global Submarine Communication Cable System Market, by Terminal Interoperability growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 140. Global Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems

   · ITU-T G.xx.xx identifies multivendor transmission equipment as its primary purpose. This supports open-interface participation but does not establish system-specific qualification or contractual restrictions. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))

2. Celebrating the completion of the most advanced subsea cable across the Atlantic

   · Microsoft's MAREA account describes interoperability with different networking equipment as supporting equipment upgrades. This is an asset-owner example rather than general switching authorization. ([blogs.microsoft.com](https://blogs.microsoft.com/blog/2017/xx.xx/xx.xx/celebrating-completion-advanced-subsea-cable-across-atlantic/))

3. TE SubCom and Ciena Partner to Deliver Enhanced Open Submarine Cable Networks

   · The November xx.xx 2016 alliance offered qualified Ciena equipment through either a consolidated TE SubCom turnkey purchase or independent supplier contracts. This historical counterexample separates interface openness from contract consolidation. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/TE-SubCom-and-Ciena-Partner-to-Deliver-Enhanced-Open-Submarine-Cable-Networks-.html))

4. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems

   · Taxonomy evidence: Establishes interoperable interfaces supporting terminal equipment supplied independently of the submerged-plant vendor.

5. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

6. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
7. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
8. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
9. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
10. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

11. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
13. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
14. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
15. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

16. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
17. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
18. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
19. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
20. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.

9.1. Open Cable Interfaces

Table 141. Global Submarine Communication Cable System Market Size, by Open Cable Interfaces, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 142. Global Submarine Communication Cable System Market Size, by Open Cable Interfaces, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 143. Global Submarine Communication Cable System Market Size, by Open Cable Interfaces, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   - Taxonomy evidence: Partial transverse compatibility permits an independent terminal vendor while both terminal ends of a link may still use the same manufacturer.
2. Celebrating the completion of the most advanced subsea cable across the Atlantic - Microsoft
   - Taxonomy evidence: The cable-system buyer describes MAREA interoperability with different networking equipment and associated upgrade flexibility.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.

9.2. Closed Vendor-Specific Interfaces

Table 144. Global Submarine Communication Cable System Market Size, by Closed Vendor-Specific Interfaces, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 145. Global Submarine Communication Cable System Market Size, by Closed Vendor-Specific Interfaces, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 146. Global Submarine Communication Cable System Market Size, by Closed Vendor-Specific Interfaces, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists longitudinal and transverse compatibility configurations separately. Longitudinal compatibility alone does not establish contractual vendor closure.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.

10. Submarine Communication Cable System Market, by Optical Fiber Core Architecture

[illegible] The commercial distinction is also visible in the announced supply allocation: Meta will fund and operate Petal, NEC will undertake system construction, and Sumitomo Electric will supply the multicore fiber. A fiber supplier's participation consequently establishes a component role, not independent complete-system responsibility.

Petal's announced service milestone is 2029, so the collaboration establishes a named commercial development path rather than completed operating evidence. Buyers requiring an operating reference should keep a Multicore Fiber proposal conditional on that prerequisite and documented delivery and support commitments. [illegible]

Figure 14. Global Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2025 (%)

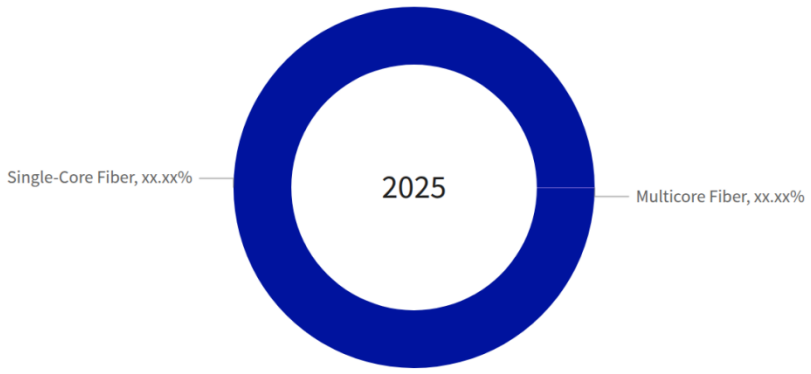


Figure 15. Global Submarine Communication Cable System Market, by Optical Fiber Core Architecture, 2032 (USD Million)

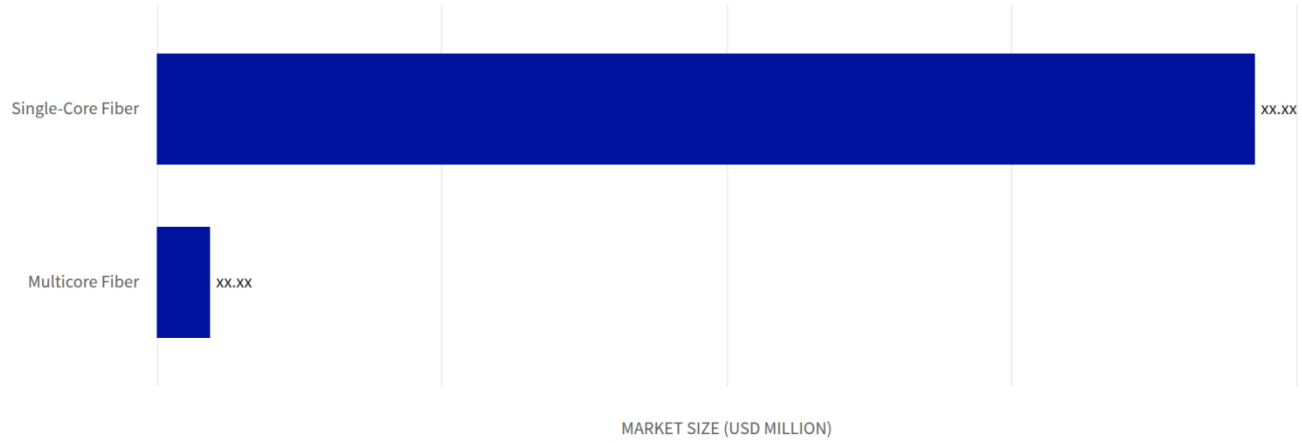


Table 147. Global Submarine Communication Cable System Market, by Optical Fiber Core Architecture growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 148. Global Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System

   · The September xx.xx 2026 announcement identifies Petal's multicore architecture and named supply roles, with operation scheduled for 2029. It establishes planned development rather than completed operation. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))

   · Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.

2. Inside Petal: Building the World’s First Petabit-Class Transoceanic Subsea Cable
   · Meta distinguishes conventional single-core fiber from Petal's planned multicore fiber and identifies NEC's system role and Sumitomo Electric's fiber-supply role. Only classification and commercial allocation are used. ([engineering.fb.com](https://engineering.fb.com/2026/xx.xx/xx.xx/connectivity/petal-petabit-transoceanic-subsea-cable/))
   · Taxonomy evidence: The buyer contrasts conventional one-core transmission fiber with the announced two-core Petal cable architecture.
3. Nokia in 2024 - Annual Report on Form 20-F
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

13. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
18. Sumitomo Electric Launches World's First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

10.1. Single-Core Fiber

Table 149. Global Submarine Communication Cable System Market Size, by Single-Core Fiber, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 150. Global Submarine Communication Cable System Market Size, by Single-Core Fiber, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 151. Global Submarine Communication Cable System Market Size, by Single-Core Fiber, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Inside Petal: Building the World's First Petabit-Class Transoceanic Subsea Cable - Engineering at Meta
   - Taxonomy evidence: Explicitly identifies one-core fiber separately from two-core fiber; core count is not fiber-pair count.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Sumitomo Electric Launches World's First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

10.2. Multicore Fiber

Table 152. Global Submarine Communication Cable System Market Size, by Multicore Fiber, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 153. Global Submarine Communication Cable System Market Size, by Multicore Fiber, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 154. Global Submarine Communication Cable System Market Size, by Multicore Fiber, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Inside Petal: Building the World's First Petabit-Class Transoceanic Subsea Cable - Engineering at Meta
   - Taxonomy evidence: Identifies multicore fiber in a named commercial submarine-system program. This announcement does not establish 2025 sales or an operational deployment.
2. Announcing Petal, a First-of-its-Kind Transoceanic Subsea Cable - Meta
   - Taxonomy evidence: The September 2026 buyer announcement specifies multicore fiber and expected service in 2029, distinguishing announced commercial development from an operating asset.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
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26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Sumitomo Electric Launches World's First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.

11. Submarine Communication Cable System Market, by Sensing Integration

Sensing Integration separates an ordinary communication purchase from additional monitoring deliverables. ■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■ ■■■■■■■ ■■■■■ ■■■■■■■ ■■ ■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■ A buyer should therefore identify whether it is purchasing communication-system supervision, Fiber-Based Sensing, Integrated Sensor Packages, or Combined Fiber and Sensor-Package Sensing before assigning budgets and service responsibilities.

Fiber-Based Sensing has equipment, software, and managed-service purchasing routes. ASN offers sensing equipment with processing software and support, while FiberSense markets a monitoring service with network-operations support. ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■ ■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■ ■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■■

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Figure 16. Global Submarine Communication Cable System Market Size, by Sensing Integration, 2025 (%)

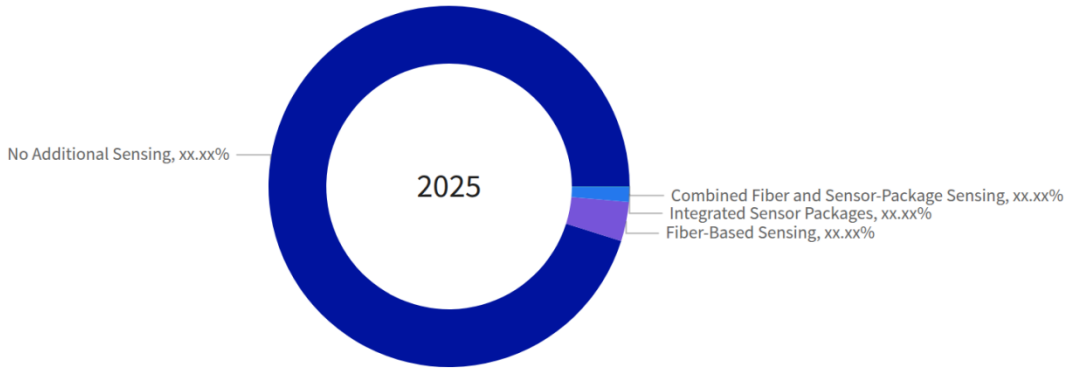


Figure 17. Global Submarine Communication Cable System Market, by Sensing Integration, 2032 (USD Million)

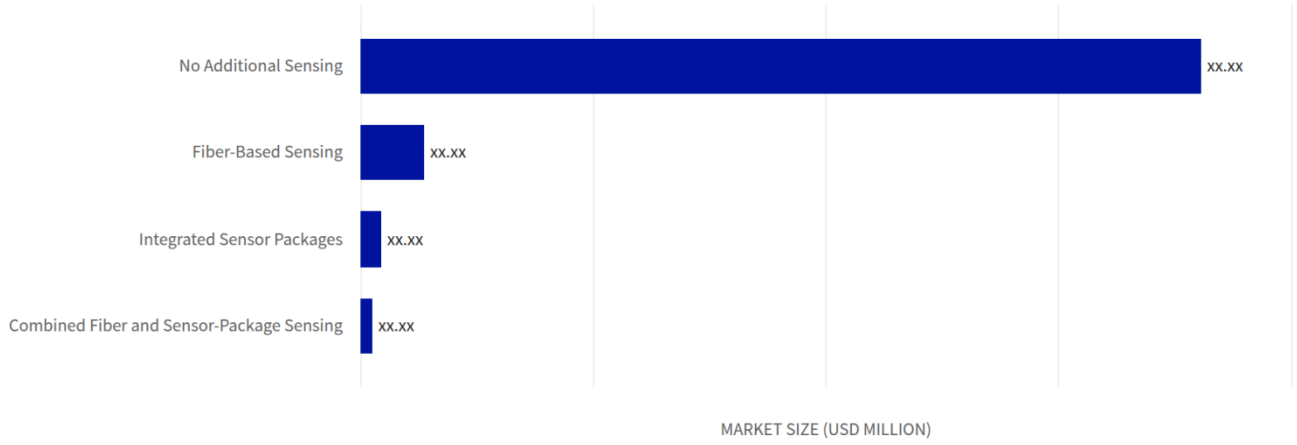


Table 155. Global Submarine Communication Cable System Market, by Sensing Integration growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 156. Global Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Fiber sensing (DAS)

   · The sensing portfolio includes equipment, software, and maintenance support. These are observed offerings; funding, customer data rights, and asset-specific suitability require separate verification. ([asn.com](https://www.asn.com/fiber-sensing/))

2. Recommendation ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems

   · ITU-T G.xx.xx separately identifies transmission-related and sensing-related monitoring functions, supporting distinction between ordinary communication supervision and additional sensing scope. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

3. DigitalMarine

   · The DigitalMarine offering supports a managed fiber-based monitoring route distinct from purchasing sensing equipment and associated software. Customer-specific data and support obligations remain contractual questions. ([fibersense.com](https://fibersense.com/digitalmarine/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

4. Recommendation ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems

   · The recommendation distinguishes scientific sensing and telecommunications functions within SMART communication systems. It establishes a recognized category, not a named funded or operating combined-sensing asset. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

5. IP e ASN assinam contrato para construção de Novo Anel CAM
   - The owner's March xx.xx 2024 contract announcement specifies an Atlantic CAM SMART component and collaboration with IPMA for scientific monitoring purposes. This is contracted development, not operating evidence. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
6. Alcatel Submarine Networks (ASN) commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
   - ASN's March xx.xx 2023 release describes ongoing development combining SMART with other sensing technologies. It supports announced intent, not a named operating asset with both purchased sensing scopes. ([asn.com](https://www.asn.com/press-release/alcatel-submarine-networks-asn-commences-development-of-climate-change-solution-by-integrating-scientific-sensors-and-sensing-technologies-into-submarine-telecom-systems/))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
7. ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
   - Taxonomy evidence: Defines a scientific sensor subsystem additional to telecommunications functions.
8. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

9. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
10. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
11. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
12. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
13. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

14. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
15. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
16. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
17. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
18. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

19. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
20. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
21. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
22. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

11.1. No Additional Sensing

Table 157. Global Submarine Communication Cable System Market Size, by No Additional Sensing, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 158. Global Submarine Communication Cable System Market Size, by No Additional Sensing, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 159. Global Submarine Communication Cable System Market Size, by No Additional Sensing, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.979 (11/2025): Characteristics of monitoring systems for optical fibre submarine cable systems
   · Taxonomy evidence: Transmission supervision and sensing-subsystem monitoring are separately described; ordinary transmission supervision alone does not establish additional sensing.

2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

11.2. Fiber-Based Sensing

Table 160. Global Submarine Communication Cable System Market Size, by Fiber-Based Sensing, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 161. Global Submarine Communication Cable System Market Size, by Fiber-Based Sensing, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 162. Global Submarine Communication Cable System Market Size, by Fiber-Based Sensing, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
   - Taxonomy evidence: Distinguishes sensing using existing telecommunications fibers from purpose-built SMART sensor integration.
2. Southern Cross Cables Limited - DigitalMarine deployment update at Nedonna
   - Taxonomy evidence: The asset buyer reports live deployment of a fiber-based subsea monitoring service at its Nedonna landing, establishing commercial use rather than a research-only demonstration.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
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25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

11.3. Integrated Sensor Packages

Table 163. Global Submarine Communication Cable System Market Size, by Integrated Sensor Packages, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 164. Global Submarine Communication Cable System Market Size, by Integrated Sensor Packages, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 165. Global Submarine Communication Cable System Market Size, by Integrated Sensor Packages, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ITU-T G.9730.2 (08/2024): Scientific monitoring and reliable telecommunication submarine cable systems
   - Taxonomy evidence: Recognizes sensor sets integrated with telecommunications-capable submarine assets.
2. Submarine cables and marine biodiversity - UNEP-WCMC and International Cable Protection Committee, April 2025
   - Taxonomy evidence: Recognizes SMART cables providing sensing alongside telecommunications.
3. IP e ASN assinam contrato para construção de Novo Anel CAM - Infraestruturas de Portugal
   - Taxonomy evidence: The project owner describes contracted Atlantic CAM telecommunications infrastructure with an integrated scientific-monitoring component.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.

4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
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9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

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    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
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22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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24. Seconda Consultazione Piano Isole Minori
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25. Global Gateway preliminary monitoring report
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

11.4. Combined Fiber and Sensor-Package Sensing

Table 166. Global Submarine Communication Cable System Market Size, by Combined Fiber and Sensor-Package Sensing, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 167. Global Submarine Communication Cable System Market Size, by Combined Fiber and Sensor-Package Sensing, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 168. Global Submarine Communication Cable System Market Size, by Combined Fiber and Sensor-Package Sensing, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F

- Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

24. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
25. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
26. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
27. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
28. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
29. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

12. Submarine Communication Cable System Market, by System Topology

System Topology changes the commercial dependency a buyer must examine. ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■ ■■■■■■■■ ■ ■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■ ■ ■■■■■■■ ■■■■■■■■ ■■■ ■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■ ■■■■■ ■■■■■ ■■■■■■■■ ■■■ ■ ■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■ ■■■ ■■■■■■■■■■■■ ■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■ ■■ ■■■ ■■■■■■■■■■■■■■■ ■■■ ■■■ ■■■■■■ ■■■■■■■■■■ Separate spokes do not remove that shared access dependency.

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Figure 18. Global Submarine Communication Cable System Market Size, by System Topology, 2025 (%)

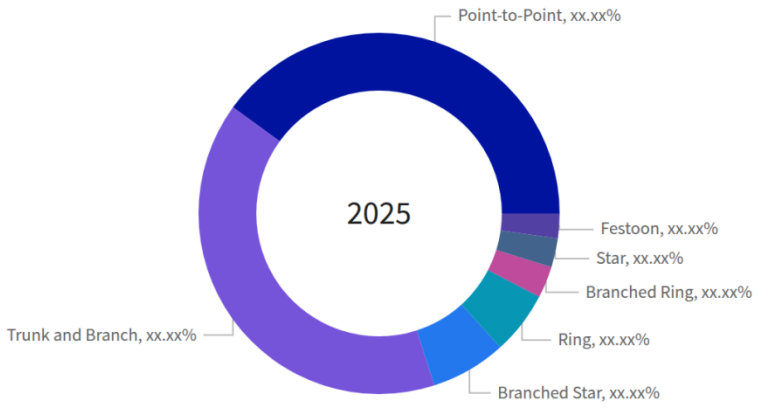


Figure 19. Global Submarine Communication Cable System Market, by System Topology, 2032 (USD Million)

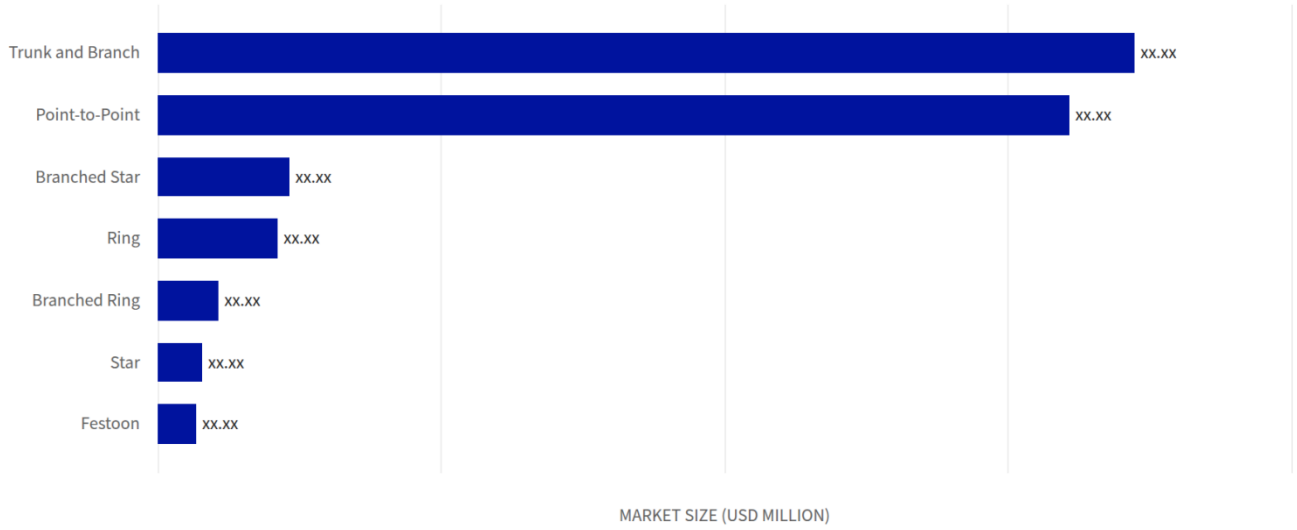


Table 169. Global Submarine Communication Cable System Market, by System Topology growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 170. Global Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ViaTunisia subsea segment reaches Ready for Service

   · Orange's June xx.xx 2026 announcement identifies ViaTunisia as an operational point-to-point segment of Medusa. It supports a defined segment purchase within a wider program. ([newsroom.orange.com](https://newsroom.orange.com/viatunisia-subsea-segment-reaches-ready-for-service/?lang=eng))

2. Celebrating the completion of the most advanced subsea cable across the Atlantic

   · Microsoft identifies physical separation from other transatlantic cables as part of MAREA's resilience rationale, supporting distinction between route diversity and topology. ([blogs.microsoft.com](https://blogs.microsoft.com/blog/2017/xx.xx/xx.xx/celebrating-completion-advanced-subsea-cable-across-atlantic/))

3. IP e ASN assinam contrato para construção de Novo Anel CAM
   - The contracted Atlantic CAM announcement expressly identifies ring topology and resilience objectives, supporting an asset-specific development example rather than a universal continuity entitlement. ([infraestruturasdeportugal.pt](https://www.infraestruturasdeportugal.pt/pt-pt/ip-e-asn-assinam-contrato-para-construcao-de-novo-anel-cam))
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
4. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - The July 2024 table of contents separately recognizes Point-to-Point, Star, Branched Star, Trunk and Branch, Festoon, Ring, and Branched Ring. This supports the exact accepted topology categories. ([itu.int](https://www.itu.int/dms_pubrec/itu-t/rec/g/T-REC-G.Sup41-xx.xx-I%xx.xx%21TOC-HTM-E.htm))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.

5. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
   · The topology descriptions distinguish direct links, a common shore terminal, submarine branching and shared trunks, successive coastal links, rings, and branched rings. These classifications support commercial dependency analysis without establishing contract rights. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.Sup41-xx.xx-S%xx.xx%21PDF-E&lang=e&type=items))
6. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   · Taxonomy evidence: The current topology section explicitly lists seven submarine optical-network configurations.
7. Nokia in 2024 - Annual Report on Form 20-F
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
8. Nokia Annual Report on Form 20-F 2021
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
9. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
10. NEC Financial Results for the First Quarter Ended June 30, 2025
    · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
    · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
11. NEC Financial Results for the Fiscal Year Ended March 31, 2026
    · Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

12. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
13. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
14. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
15. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
16. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

17. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
18. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
19. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
20. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
21. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

12.1. Point-to-Point

Table 171. Global Submarine Communication Cable System Market Size, by Point-to-Point, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 172. Global Submarine Communication Cable System Market Size, by Point-to-Point, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 173. Global Submarine Communication Cable System Market Size, by Point-to-Point, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists point-to-point as a distinct topology.
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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.

12.2. Trunk and Branch

Table 174. Global Submarine Communication Cable System Market Size, by Trunk and Branch, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 175. Global Submarine Communication Cable System Market Size, by Trunk and Branch, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 176. Global Submarine Communication Cable System Market Size, by Trunk and Branch, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

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19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
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31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.

12.3. Branched Star

Table 177. Global Submarine Communication Cable System Market Size, by Branched Star, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 178. Global Submarine Communication Cable System Market Size, by Branched Star, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 179. Global Submarine Communication Cable System Market Size, by Branched Star, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists branched star separately from star.
2. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Distinguishes underwater fan-out from independent shore-based star spokes.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
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12.4. Ring

Table 180. Global Submarine Communication Cable System Market Size, by Ring, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 181. Global Submarine Communication Cable System Market Size, by Ring, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 182. Global Submarine Communication Cable System Market Size, by Ring, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Society of American Military Engineers Awards NAVFAC EXWC 2019 Project of the Year
   - Taxonomy evidence: The government project account expressly identifies the submarine fiber connection as a ring, providing an asset-specific example for the retained Ring topology rather than inferring topology from the agency's wider network.
   ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))
2. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists ring as a distinct topology.
3. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Describes a closed arrangement of connected point-to-point links.

4. IP e ASN assinam contrato para construção de Novo Anel CAM - Infraestruturas de Portugal
   - Taxonomy evidence: The project owner explicitly specifies a ring topology for the contracted replacement cable system.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
5. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
6. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
7. TE Connectivity Ltd. 2018 Annual Report
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   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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15. ICPC Media Enquiries & Frequently Asked Questions
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    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
19. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
20. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

21. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
22. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
23. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
24. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
25. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
26. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

27. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
28. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
29. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
30. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.

12.5. Branched Ring

Table 183. Global Submarine Communication Cable System Market Size, by Branched Ring, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 184. Global Submarine Communication Cable System Market Size, by Branched Ring, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 185. Global Submarine Communication Cable System Market Size, by Branched Ring, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists branched ring separately from ring.
2. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
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19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
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22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
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31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.

12.6. Star

Table 186. Global Submarine Communication Cable System Market Size, by Star, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 187. Global Submarine Communication Cable System Market Size, by Star, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 188. Global Submarine Communication Cable System Market Size, by Star, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists star as a distinct topology.
2. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Describes separate cable links from a main terminal station.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
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31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.

12.7. Festoon

Table 189. Global Submarine Communication Cable System Market Size, by Festoon, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 190. Global Submarine Communication Cable System Market Size, by Festoon, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 191. Global Submarine Communication Cable System Market Size, by Festoon, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Table of contents - ITU-T G-series Supplement 41 (07/2024): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Lists festoon as a distinct topology.
2. ITU-T G-series Supplement 41 (06/2007): Design guidelines for optical fibre submarine cable systems
   - Taxonomy evidence: Describes successive links between coastal landing points.
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.

13. Submarine Communication Cable System Market, by Connectivity Application

Telecommunications Backbone Connectivity and Cloud and Content Network Interconnection create different purchasing requirements. ■■■ ■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■ ■■■■■■■■■■ ■■ ■■■ ■■■ ■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■ ■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ Neither application establishes that an announced system is available to outside customers.

Enterprise and Public-Service Connectivity links international access to institutional services, whereas Offshore Operational Connectivity can be anchored by continuing industrial operations. CARCIP included government networks, schools, and health clinics; INPEX and Shell's announced Nextgen partnership tied communications to offshore facilities over their operating lives. ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■ ■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■■

Defense and Security Connectivity need not mean a defense-only asset: Norway's preparedness white paper describes a proposed fiber connection serving civilian and military needs. Research and Education Connectivity can make a particular interconnection location decisive. ■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■ ■■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■■

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Figure 20. Global Submarine Communication Cable System Market Size, by Connectivity Application, 2025 (%)

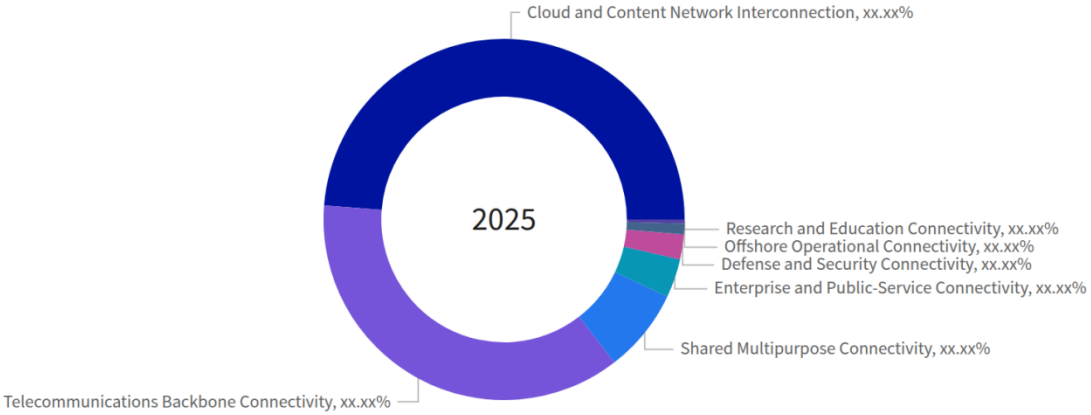


Figure 21. Global Submarine Communication Cable System Market, by Connectivity Application, 2032 (USD Million)

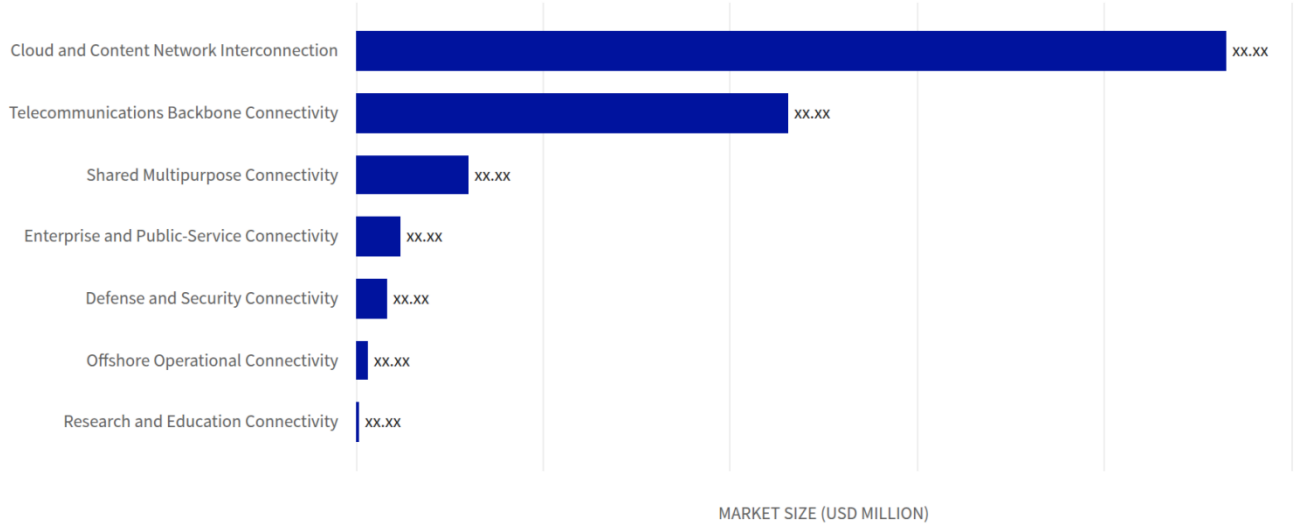


Table 192. Global Submarine Communication Cable System Market, by Connectivity Application growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 193. Global Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · Google's Sol announcement links the proposed system to its cloud network, landing partners, and terrestrial interconnections; it does not establish outside-customer availability. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)
   · The FSM program combines international connectivity, domestic-network development, open-access arrangements, and institutional reform, supporting the conditional requirement to assess domestic-access complements. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

3. Building the Caribbean digital economy bit by bit
   - CARCIP's infrastructure contracts combined submarine connectivity with government and educational networks, including service needs at health clinics. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
   - Taxonomy evidence: The January xx.xx 2019 project account distinguishes public broadband, government networks, and educational connectivity within a program that included construction of a submarine cable. These are observed demand purposes, not reported application-market shares. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
4. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
   - The announcement ties communications to offshore facilities over their operating lives and identifies construction sponsorship separately from cable operation. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
5. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
   - The July xx.xx 2024 notice specifies Hawaiki landing-station access and colocation for the university's NSF-funded research-network interconnection requirement. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
   - Taxonomy evidence: The July xx.xx 2024 procurement notice identifies cable-landing-station access and colocation as purchases supporting a research-and-education network project, establishing an attributable institutional connectivity function within the broader landing-hosting boundary. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
6. Meld. St. 9 (2024-2025) - Total preparedness
   - Norway's white paper describes a proposed fiber connection serving civilian and military data-transmission needs, not an exclusively defense-purpose asset. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3082364/?ch=xx.xx))

7. Meld. St. 26 (2023-2024) - Svalbard

· The Svalbard connection supports businesses, public institutions, research, and airport traffic management through common infrastructure. Separate contractual priorities are not disclosed. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

· Taxonomy evidence: The government publication identifies submarine connectivity supporting residents, businesses, research, higher education, public administration, and emergency preparedness, documenting distinct purposes sharing a telecommunications asset. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

· Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.

· Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.

8. Announcing the Grace Hopper subsea cable, linking the U.S., U.K. and Spain

· Taxonomy evidence: The July xx.xx 2020 announcement identifies a submarine cable commissioned to strengthen the network supporting Google's consumer and enterprise digital products. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))

9. Nokia in 2024 - Annual Report on Form 20-F

· Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

· Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

10. Nokia Annual Report on Form 20-F 2021

· Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

· Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

· Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

· Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

· Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

11. TE Connectivity Ltd. 2018 Annual Report

· Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.

· Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

12. NEC Financial Results for the First Quarter Ended June 30, 2025
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
13. NEC Financial Results for the Fiscal Year Ended March 31, 2026
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
14. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
15. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
16. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

17. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
18. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
19. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
20. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
21. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
22. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
23. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.

24. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
25. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
26. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.

13.1. Cloud and Content Network Interconnection

Table 194. Global Submarine Communication Cable System Market Size, by Cloud and Content Network Interconnection, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 195. Global Submarine Communication Cable System Market Size, by Cloud and Content Network Interconnection, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 196. Global Submarine Communication Cable System Market Size, by Cloud and Content Network Interconnection, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Announcing the Grace Hopper subsea cable, linking the U.S., U.K. and Spain

   · Taxonomy evidence: Google states that Grace Hopper would support services including Google Cloud and integrate a cloud region into its global infrastructure, establishing a cloud/content production-network purpose.
   ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

13.2. Telecommunications Backbone Connectivity

Table 197. Global Submarine Communication Cable System Market Size, by Telecommunications Backbone Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 198. Global Submarine Communication Cable System Market Size, by Telecommunications Backbone Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 199. Global Submarine Communication Cable System Market Size, by Telecommunications Backbone Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Building the Caribbean digital economy bit by bit
   - Taxonomy evidence: The account describes submarine fiber connectivity as enabling modern telecommunications and affordable internet services for previously underserved communities. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))
2. Meld. St. 26 (2023-2024)
   - Taxonomy evidence: The publication states that subsea fiber cables support public electronic communications alongside institutional and business requirements, providing an example of broad telecommunications-backbone demand. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

13.3. Shared Multipurpose Connectivity

Table 200. Global Submarine Communication Cable System Market Size, by Shared Multipurpose Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 201. Global Submarine Communication Cable System Market Size, by Shared Multipurpose Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 202. Global Submarine Communication Cable System Market Size, by Shared Multipurpose Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

   · Taxonomy evidence: The announced system served offshore industrial communications while also providing an alternative backhaul path supporting land-based voice and data services. This documents multiple intended functions within one cable system, without establishing their expenditure allocation. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

2. Meld. St. 26 (2023-2024)

   · Taxonomy evidence: The same cable connection serves public communications, satellite-station data, public-sector functions, and airport traffic management. These observed functions support recognition of multipurpose infrastructure but do not establish a monetary allocation among applications. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.

3. Meld. St. 9 (2024-2025)
   - Taxonomy evidence: The planned submarine connection is expressly described as serving both civilian and military data-transmission requirements, supporting recognition of deliberately combined functions at the asset level. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3082364/?ch=xx.xx))
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
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   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

13.4. Enterprise and Public-Service Connectivity

Table 203. Global Submarine Communication Cable System Market Size, by Enterprise and Public-Service Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 204. Global Submarine Communication Cable System Market Size, by Enterprise and Public-Service Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 205. Global Submarine Communication Cable System Market Size, by Enterprise and Public-Service Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Building the Caribbean digital economy bit by bit

   · Taxonomy evidence: Governments contracted new government wide-area networks alongside the submarine cable, and the account identifies government offices and health clinics among the connectivity needs. It does not disclose dedicated submarine fiber assignments or cable-only organizational expenditure. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.

2. Meld. St. 26 (2023-2024)

   · Taxonomy evidence: Civil public-sector users and airport traffic management are identified as communications users of the submarine cable connection. Their use does not establish dedicated fiber assignments or that they bought the cable itself. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

13.5. Defense and Security Connectivity

Table 206. Global Submarine Communication Cable System Market Size, by Defense and Security Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 207. Global Submarine Communication Cable System Market Size, by Defense and Security Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 208. Global Submarine Communication Cable System Market Size, by Defense and Security Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Society of American Military Engineers Awards NAVFAC EXWC 2019 Project of the Year

   · Taxonomy evidence: The Navy's May xx.xx 2019 account identifies a submarine fiber-optic project commissioned in March 2016 to connect Department of Defense information-network nodes. It establishes a defense telecommunications function, without proving exclusively military use or a current expenditure allocation.
   ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))

2. Meld. St. 9 (2024-2025)

   · Taxonomy evidence: The government white paper states that a planned fiber-optic connection would transmit data for both civilian and military needs. It establishes an intended military communications function, not a defense-only asset, completed deployment, or agency-specific purchase allocation.
   ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3082364/?ch=xx.xx))

3. Subsea telecommunications cables: resilience and crisis preparedness
   - Taxonomy evidence: The parliamentary report separately discusses secure cables used for military and intelligence communications, drawing on public testimony about those systems. This supports a distinct communications purpose without disclosing operational details or procurement expenditure. ([publications.parliament.uk](https://publications.parliament.uk/pa/jt5901/jtselect/jtnatsec/xx.xx/report.html))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
4. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
5. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
6. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

14. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
16. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
17. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
18. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
19. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

20. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
21. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
22. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
23. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
24. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
25. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
26. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

27. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
28. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
29. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
30. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

13.6. Offshore Operational Connectivity

Table 209. Global Submarine Communication Cable System Market Size, by Offshore Operational Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 210. Global Submarine Communication Cable System Market Size, by Offshore Operational Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 211. Global Submarine Communication Cable System Market Size, by Offshore Operational Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

   · Taxonomy evidence: The May xx.xx 2014 announcement describes construction of a subsea optical-fiber system serving offshore LNG facilities with data and voice communications throughout their operations. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.

2. Scarborough switches on for start-up

   · Taxonomy evidence: Woodside's April xx.xx 2026 account reports fiber connectivity between its offshore production facility and headquarters, supporting remote operations, operational data transfer, and workforce communications. Only attributable telecommunications scope is relevant; the industrial power/control umbilical is outside the frozen boundary. ([woodside.com](https://www.woodside.com/media-centre/news-stories/story/scarborough-switches-on-for-start-up))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
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   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
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   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
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   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
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26. Telxius' international network - Colocation Fact Sheet
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27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

13.7. Research and Education Connectivity

Table 212. Global Submarine Communication Cable System Market Size, by Research and Education Connectivity, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 213. Global Submarine Communication Cable System Market Size, by Research and Education Connectivity, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 214. Global Submarine Communication Cable System Market Size, by Research and Education Connectivity, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services

   · Taxonomy evidence: The notice states that landing-station colocation supports the university's NSF-funded research network and direct interconnection with research-and-education networks. This is procurement of attributable landing infrastructure services, not evidence used to include excluded capacity leases. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.

2. Antarctic Subsea Science and Telecommunications Cable

   · Taxonomy evidence: The science agency is exploring a telecommunications-capable submarine connection linking a research station with research-and-education networks, with scientific sensing integrated into the proposed cable. The page describes feasibility and information gathering, not completed commercial system delivery. ([nsf.gov](https://www.nsf.gov/od/opp/ant/antarctic-subsea-cable))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
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27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

14. Submarine Communication Cable System Market, by Buyer Sector

Telecommunications and Cable Network Operators are identifiable asset-operating counterparties, while Cloud and Content Providers can commission infrastructure for internal service networks. ■■■■■ ■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■ ■■ ■■■ ■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■ ■■ ■■■■■ ■■ ■■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ Traffic from a named sector does not establish purchasing authority within that sector.

■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■ ■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■ ■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■ Landing suppliers should identify the facility investor, while public-program suppliers should establish the authorized procurement body and funded deliverable. An expansion announcement does not demonstrate completed construction or an award for every associated package.

Defense and Security Agencies are a distinct buyer constituency, but military use does not identify a current contracting agency. The UK Parliament discusses reported state-operated secure communications cables without specifying the buyer for a particular purchase. ■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■ ■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■

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For procurement governed by World Bank regulations, qualification depends on the named bidding firm's credentials. Affiliate experience is not automatically transferable, and specialist-subcontractor contributions require express permission in the procurement documents. ■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■■ ■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■ ■ ■■■■■ ■■■■■■ ■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■■■

Figure 22. Global Submarine Communication Cable System Market Size, by Buyer Sector, 2025 (%)

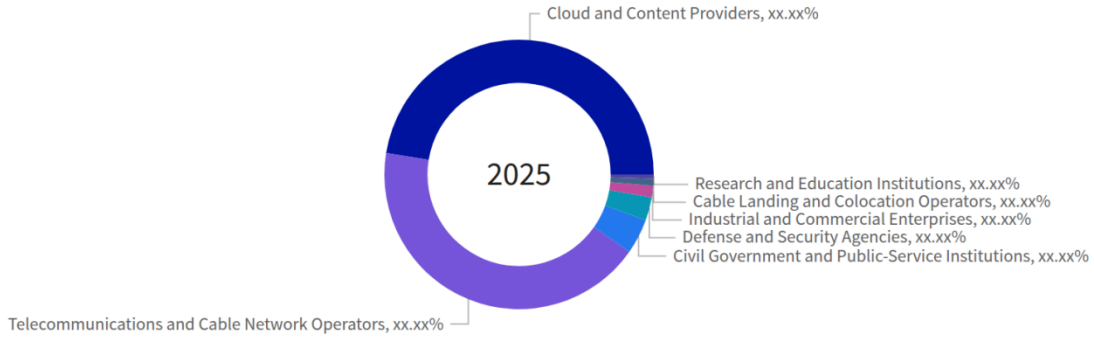


Figure 23. Global Submarine Communication Cable System Market, by Buyer Sector, 2032 (USD Million)

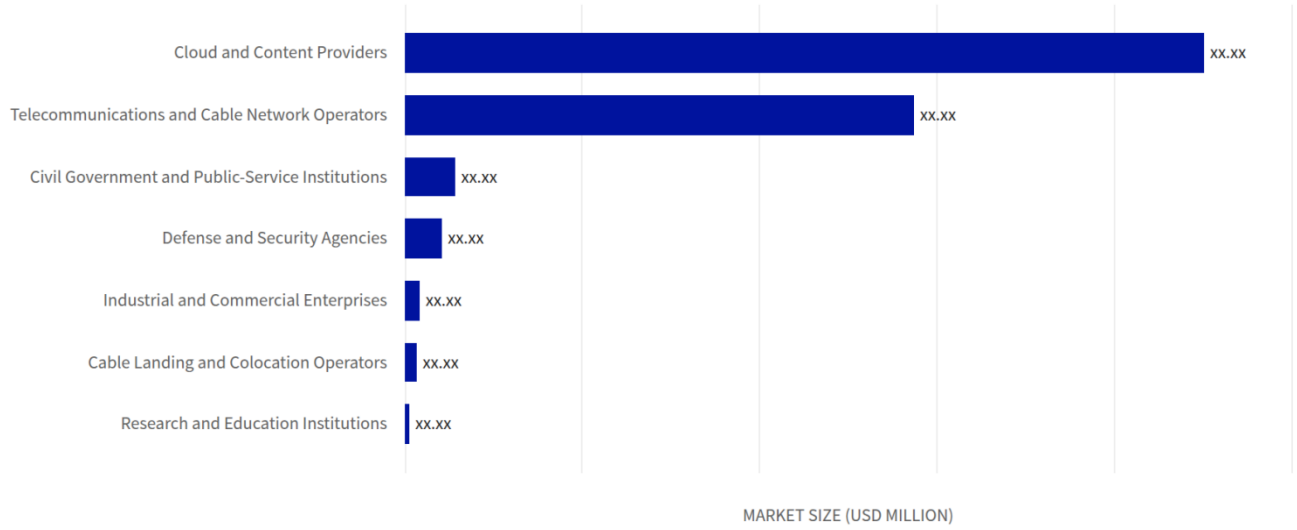


Table 215. Global Submarine Communication Cable System Market, by Buyer Sector growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 216. Global Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable

   · Google identifies its own cloud infrastructure as the investment constituency and separately names landing partners.
   ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))

2. Procurement Regulations for IPF Borrowers, Seventh Edition, September 2025

   · World Bank regulations assess the bidding firm's qualifications, disallow automatic attribution of affiliate credentials, and permit specialist-subcontractor contributions only when procurement documents allow them. Prequalification is optional.
   ([thedocs.worldbank.org](https://thedocs.worldbank.org/en/doc/c84273d1b230aeb2b0b8134de5dc8cd7-xx.xx/original/Procurement-Regulations-7th-Edition-Sep-2025.pdf))

3. Building the Caribbean digital economy bit by bit

   · The participating governments signed infrastructure contracts with Digicel, establishing public commissioning separately from contractor identity.
   ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))

   · Taxonomy evidence: The account identifies governments as contract signatories and distinguishes them from the telecommunications contractor delivering the infrastructure.
   ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.

4. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

   · INPEX and Shell proposed contributing to construction while Nextgen would build, own, and operate the cable.
   ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

   · Taxonomy evidence: The announcement separates industrial construction sponsors from the communications business that would build, own, and operate the cable, supporting identification of participating economic purchasing roles.
   ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.

5. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services
   - The notice identifies the university as purchaser and Hawaiki Submarine Cable USA Limited as intended supplier for landing access and colocation. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
   - Taxonomy evidence: The university is identified as the purchasing institution, while the cable-system business is identified as the intended supplier, separating buyer mandate from contractor identity. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
6. Meld. St. 26 (2023-2024) - Svalbard
   - The government identifies Space Norway as cable owner and operator, separately from organizations using the connection. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
7. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
   - The February xx.xx 2025 municipal announcement describes Globalinx's proposed carrier-neutral landing-infrastructure expansion, not completed delivery. ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))
   - Taxonomy evidence: The February xx.xx 2025 municipal announcement describes a carrier-neutral landing/data-center business expanding dedicated subsea landing infrastructure. This establishes a commissioning infrastructure-hosting role separate from the cable tenants and their traffic users. ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
8. Subsea telecommunications cables: resilience and crisis preparedness
   - The parliamentary report discusses reportedly state-operated military and intelligence communications cables without identifying a contracting agency for a specific purchase. ([publications.parliament.uk](https://publications.parliament.uk/pa/jt5901/jtselect/jtnatsec/xx.xx/report.html))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
9. Antarctic Subsea Science and Telecommunications Cable
   - NSF describes exploration of an Antarctic telecommunications and science cable concept and an information request, not a construction award. ([nsf.gov](https://www.nsf.gov/od/opp/ant/antarctic-subsea-cable))

10. Announcing the Grace Hopper subsea cable, linking the U.S., U.K. and Spain

· Taxonomy evidence: Google reports that a cable construction contract had been signed with a system supplier, distinguishing the commissioning digital-service business from its equipment and installation contractor.
([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))

11. Nokia in 2024 - Annual Report on Form 20-F

· Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

· Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

12. Nokia Annual Report on Form 20-F 2021

· Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

· Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

· Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

· Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

· Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

13. TE Connectivity Ltd. 2018 Annual Report

· Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.

· Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

14. NEC Financial Results for the First Quarter Ended June 30, 2025

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

15. NEC Financial Results for the Fiscal Year Ended March 31, 2026

· Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

16. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
17. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
18. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
19. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
20. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

21. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
22. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
23. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
24. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.

25. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
26. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
27. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.

14.1. Cloud and Content Providers

Table 217. Global Submarine Communication Cable System Market Size, by Cloud and Content Providers, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 218. Global Submarine Communication Cable System Market Size, by Cloud and Content Providers, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 219. Global Submarine Communication Cable System Market Size, by Cloud and Content Providers, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Announcing the Grace Hopper subsea cable, linking the U.S., U.K. and Spain

   · Taxonomy evidence: The announcement documents Google commissioning a private submarine cable for its own digital-service network; it is evidence of a cloud/content buyer role, not merely capacity consumption. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-googles-grace-hopper-subsea-cable-system/))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
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9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.

14.2. Telecommunications and Cable Network Operators

Table 220. Global Submarine Communication Cable System Market Size, by Telecommunications and Cable Network Operators, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 221. Global Submarine Communication Cable System Market Size, by Telecommunications and Cable Network Operators, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 222. Global Submarine Communication Cable System Market Size, by Telecommunications and Cable Network Operators, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

   · Taxonomy evidence: Nextgen Group was identified as the business responsible for building, owning, and operating the commissioned subsea communications system. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

2. Meld. St. 26 (2023-2024)

   · Taxonomy evidence: The government identifies Space Norway as the owner and operator of the submarine fiber cables, establishing the cable-network operating role separately from the institutions using the connection. ([regjeringen.no](https://www.regjeringen.no/en/documents/meld.-st.xx.xx-xx.xx/id3041130/?ch=xx.xx))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.

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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
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21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.

25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

14.3. Civil Government and Public-Service Institutions

Table 223. Global Submarine Communication Cable System Market Size, by Civil Government and Public-Service Institutions, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 224. Global Submarine Communication Cable System Market Size, by Civil Government and Public-Service Institutions, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 225. Global Submarine Communication Cable System Market Size, by Civil Government and Public-Service Institutions, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Building the Caribbean digital economy bit by bit

   · Taxonomy evidence: Three governments signed infrastructure contracts that included a new submarine cable and civil government networks, establishing a public commissioning role rather than participation inferred solely from government traffic. ([blogs.worldbank.org](https://blogs.worldbank.org/en/latinamerica/building-caribbean-digital-economy-bit-bit))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

14.4. Defense and Security Agencies

Table 226. Global Submarine Communication Cable System Market Size, by Defense and Security Agencies, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 227. Global Submarine Communication Cable System Market Size, by Defense and Security Agencies, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 228. Global Submarine Communication Cable System Market Size, by Defense and Security Agencies, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Society of American Military Engineers Awards NAVFAC EXWC 2019 Project of the Year

   · Taxonomy evidence: The account identifies NAVFAC coordination on behalf of the Defense Information Systems Agency across the cable project. This establishes an institutional commissioning role beyond merely carrying defense traffic, but does not disclose current agency purchasing obligations or contract-line values. ([navy.mil](https://www.navy.mil/DesktopModules/ArticleCS/Print.aspx?Article=xx.xx&ModuleId=xx.xx&PortalId=xx.xx))

2. Subsea telecommunications cables: resilience and crisis preparedness

   · Taxonomy evidence: The report describes military and intelligence communications systems operated by the state, supporting an institutional defense/security role. It does not identify the contracting agency or establish a specific ultimate-buyer procurement transaction. ([publications.parliament.uk](https://publications.parliament.uk/pa/jt5901/jtselect/jtnatsec/xx.xx/report.html))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

14.5. Industrial and Commercial Enterprises

Table 229. Global Submarine Communication Cable System Market Size, by Industrial and Commercial Enterprises, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 230. Global Submarine Communication Cable System Market Size, by Industrial and Commercial Enterprises, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 231. Global Submarine Communication Cable System Market Size, by Industrial and Commercial Enterprises, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable

   · Taxonomy evidence: The offshore energy projects were announced as contributors to cable construction, establishing industrial infrastructure sponsorship beyond the purchase of ongoing bandwidth services. The announcement does not establish participation by every industrial or commercial sector. ([inpex.com.au](https://www.inpex.com.au/news-and-updates/media-centre/media-releases/inpex-and-shell-to-partner-with-nextgen-group-to-build-subsea-fibre-optic-cable/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.

2. Scarborough switches on for start-up

   · Taxonomy evidence: The account identifies an industrial asset owner implementing offshore communications infrastructure within its project. The reported 2026 connection is not evidence of completed 2025 delivery or a separately disclosed cable-system expenditure amount. ([woodside.com](https://www.woodside.com/media-centre/news-stories/story/scarborough-switches-on-for-start-up))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
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   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
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   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
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21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
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    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

14.6. Cable Landing and Colocation Operators

Table 232. Global Submarine Communication Cable System Market Size, by Cable Landing and Colocation Operators, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 233. Global Submarine Communication Cable System Market Size, by Cable Landing and Colocation Operators, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 234. Global Submarine Communication Cable System Market Size, by Cable Landing and Colocation Operators, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project

   • Taxonomy evidence: The announced expansion concerns additional subsea cable landing bores and carrier-neutral landing-station infrastructure commissioned by the hosting business. The announcement is evidence of a dedicated landing-infrastructure buyer setting, not proof that the expansion had been completed.
   ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))

   • Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

   • Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
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11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
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14.7. Research and Education Institutions

Table 235. Global Submarine Communication Cable System Market Size, by Research and Education Institutions, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 236. Global Submarine Communication Cable System Market Size, by Research and Education Institutions, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 237. Global Submarine Communication Cable System Market Size, by Research and Education Institutions, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services

   · Taxonomy evidence: The public procurement notice establishes a university commissioning cable-specific landing-station access and equipment colocation for its research-and-education mission. ([hawaii.edu](https://www.hawaii.edu/procurement/wp-content/uploads/2024/xx.xx/Notice-of-SS-Hawaiki-ITS.pdf))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.

2. Antarctic Subsea Science and Telecommunications Cable

   · Taxonomy evidence: The proposed project is sponsored by science-program and cyberinfrastructure offices, illustrating the research-institution mandate distinct from general civil administration. The information request does not establish a construction award or delivered sales. ([nsf.gov](https://www.nsf.gov/od/opp/ant/antarctic-subsea-cable))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

15. Submarine Communication Cable System Market, by Procurement Model

Supplier-Led Turnkey Delivery offers a consolidated contracting route rather than requiring the owner to award every package separately. NEC markets end-to-end submarine-system delivery, and Pioneer Consulting contrasts single-supplier turnkey contracts with disaggregated procurement. ■■ ■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■ ■■ ■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■ ■■■■■■■■■■■ ■■ ■■■ ■■■■ ■■■■■■■■■

Owner-Led Disaggregated Delivery permits separate supplier and timing choices but requires funded coordination. ■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■ ■■ ■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ Where those commitments cannot be secured, consolidated supply is a defensible alternative; employing an adviser supports owner capability but does not erase retained responsibilities.

Figure 24. Global Submarine Communication Cable System Market Size, by Procurement Model, 2025 (%)

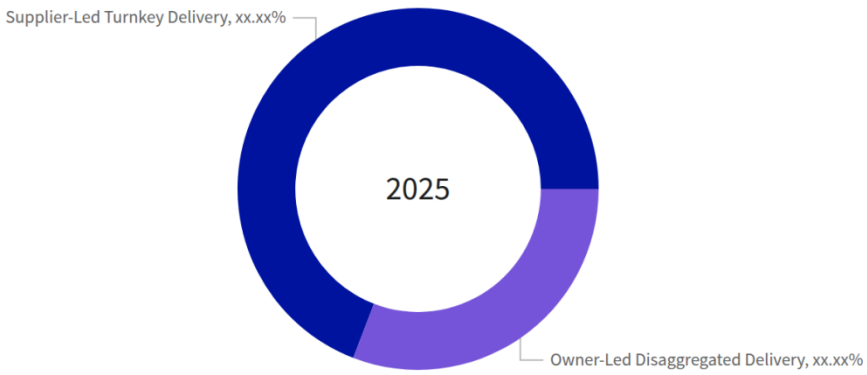


Figure 25. Global Submarine Communication Cable System Market, by Procurement Model, 2032 (USD Million)

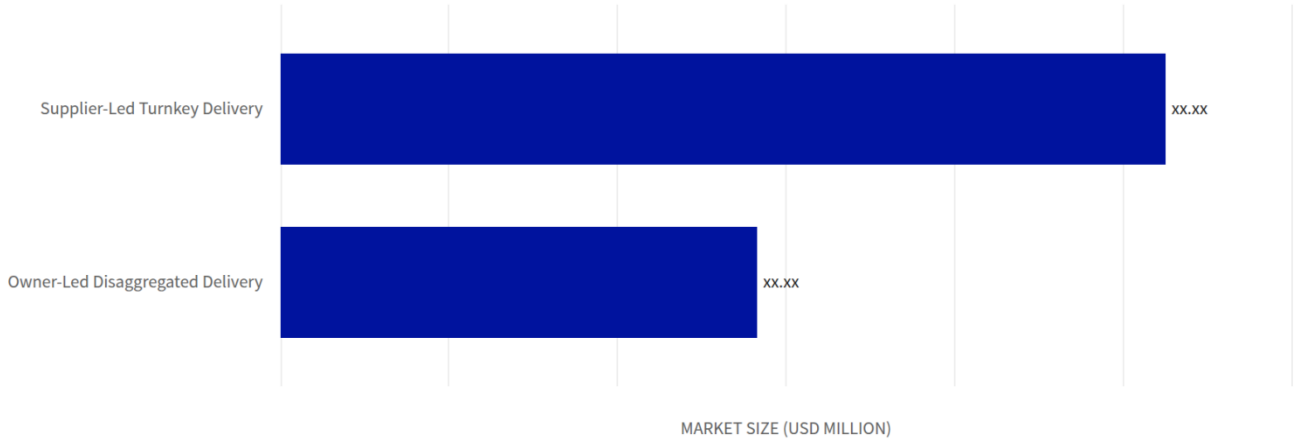


Table 238. Global Submarine Communication Cable System Market, by Procurement Model growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 239. Global Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions

   · NEC markets end-to-end submarine-system solutions extending through maintenance, establishing a consolidated commercial offering rather than individual-contract responsibility allocation. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))

2. Disaggregated System Supply
   · Pioneer contrasts single-supplier turnkey contracting with separate component selection and contracting under disaggregated procurement, including coordination of funding and delivery dates. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
   · Taxonomy evidence: Contrasts single-supplier turnkey contracting with disaggregated procurement in which system components are sourced separately. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
3. Crosslake Fibre
   · The Crosslake case documents independently selected contractors, interdependent deadlines, and consolidated project-management oversight across marine, terrestrial, and operational responsibilities. ([pioneerconsulting.com](https://www.pioneerconsulting.com/case_studies/crosslake-fibre-a-unique-submarine-cable-beneath-lake-ontario-connecting-toronto-to-buffalo/))
   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
4. Nokia in 2024 - Annual Report on Form 20-F
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
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6. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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7. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
8. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
9. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
10. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

12. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
14. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
16. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
17. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
18. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.

19. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
20. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.

15.1. Supplier-Led Turnkey Delivery

Table 240. Global Submarine Communication Cable System Market Size, by Supplier-Led Turnkey Delivery, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 241. Global Submarine Communication Cable System Market Size, by Supplier-Led Turnkey Delivery, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 242. Global Submarine Communication Cable System Market Size, by Supplier-Led Turnkey Delivery, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Disaggregated System Supply - Pioneer Consulting

   · Taxonomy evidence: Recognizes single-supplier turnkey contracting as the alternative to disaggregated system supply.
   ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

31. **Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract**
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.

15.2. Owner-Led Disaggregated Delivery

Table 243. Global Submarine Communication Cable System Market Size, by Owner-Led Disaggregated Delivery, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 244. Global Submarine Communication Cable System Market Size, by Owner-Led Disaggregated Delivery, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 245. Global Submarine Communication Cable System Market Size, by Owner-Led Disaggregated Delivery, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Disaggregated System Supply - Pioneer Consulting

   · Taxonomy evidence: Describes client-supported selection and separate contracting of system components under disaggregated procurement. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))

2. Crosslake Fibre

   · Taxonomy evidence: The Crosslake Fibre case documents a disaggregated contracting approach, with the owner and its consultant selecting vendors and coordinating separately purchased project components. ([pioneerconsulting.com](https://www.pioneerconsulting.com/case_studies/crosslake-fibre-a-unique-submarine-cable-beneath-lake-ontario-connecting-toronto-to-buffalo/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

28. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

29. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

16. Submarine Communication Cable System Market, by Water Depth Class

Shallow-Water Deployment and Deep-Water Deployment distinguish commercial service contexts, not universally interchangeable supplier capabilities. ITU-T G.xx.xx relates shallow water to marine activity capable of causing cable faults and defines deep water beyond that boundary; it also distinguishes shallow-water and deep-sea repair contexts. ■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■ ■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■

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Figure 26. Global Submarine Communication Cable System Market Size, by Water Depth Class, 2025 (%)

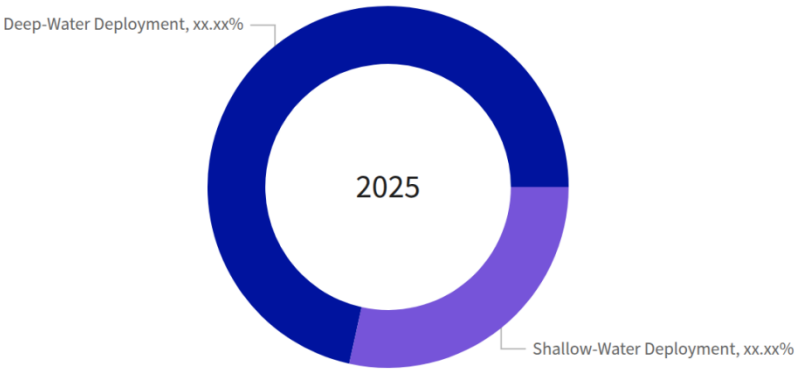


Figure 27. Global Submarine Communication Cable System Market, by Water Depth Class, 2032 (USD Million)

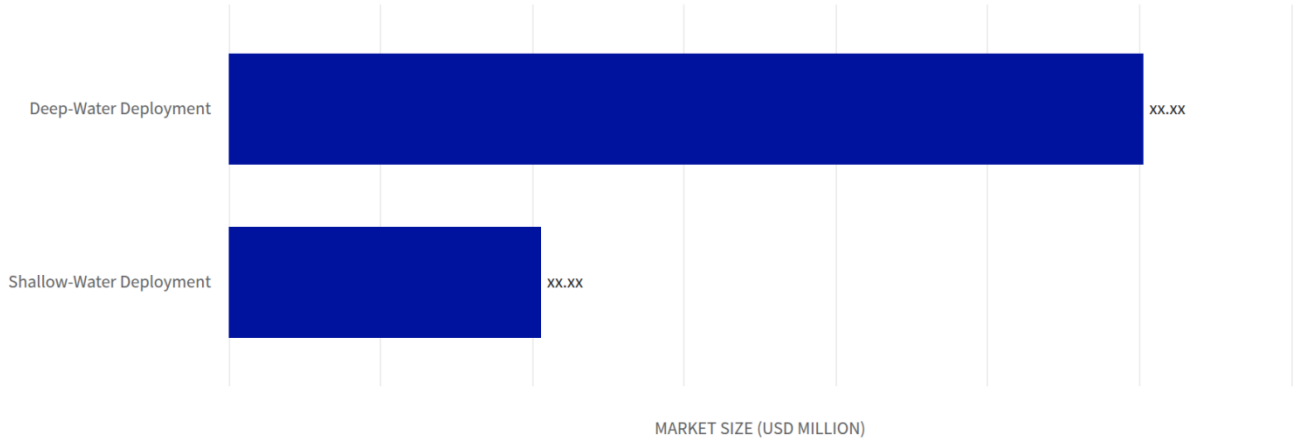


Table 246. Global Submarine Communication Cable System Market, by Water Depth Class growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 247. Global Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Government Best Practices for Protecting and Promoting Resilience of Submarine Telecommunications Cables, Version 1.2

   · ICPC guidance describes regional resource pooling and repair delays associated with vessel, cabotage, and crewing restrictions, supporting separate assessment of service access and depth classification. ([iscpc.org](https://www.iscpc.org/documents/?id=xx.xx))

2. Apply to lay cables

   · MMO guidance distinguishes international cable laying within territorial waters, laying outside them, and associated works that may require permission; these jurisdictional distinctions are not water-depth classes. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))

3. Subsea Telecommunications Fibre Optic Cable Maintenance

· Global Marine describes marine services through regional maintenance agreements with specified coverage, supporting verification of contractual territory independently of depth class. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))

4. Recommendation ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems

· ITU-T G.xx.xx relates shallow water to marine activity creating cable-fault risk, defines deep water beyond that boundary, and recognizes distinct shallow-water and deep-sea repair contexts. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

5. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

· Taxonomy evidence: Terms xx.xx-xx.xx distinguish shallow water by a marine-activity risk limit and deep water beyond it. Approximately xx.xx meters is indicative, not a universally fixed transition. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

6. Nokia in 2024 - Annual Report on Form 20-F

· Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

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7. Nokia Annual Report on Form 20-F 2021

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· Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

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    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
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    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
15. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
16. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
17. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
18. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.

19. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
20. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
21. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

16.1. Deep-Water Deployment

Table 248. Global Submarine Communication Cable System Market Size, by Deep-Water Deployment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 249. Global Submarine Communication Cable System Market Size, by Deep-Water Deployment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 250. Global Submarine Communication Cable System Market Size, by Deep-Water Deployment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Recognizes deep water as depths exceeding the shallow-water limit. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

16.2. Shallow-Water Deployment

Table 251. Global Submarine Communication Cable System Market Size, by Shallow-Water Deployment, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 252. Global Submarine Communication Cable System Market Size, by Shallow-Water Deployment, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 253. Global Submarine Communication Cable System Market Size, by Shallow-Water Deployment, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Recognizes shallow water as depths down to the specified marine-activity risk limit. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

17. Submarine Communication Cable System Market, by Contracting Channel

Direct Asset-Owner Contracting provides access to the commissioning authority, which may be a shared project's authorized committee rather than an individual beneficiary. The June xx.xx 2023 East Micronesia Cable announcement records the management committee signing with NEC after a competitive tender. ■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ ■■ ■■■■■ ■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■■ ■■■ ■■■■ ■■■■■ ■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■■■

Intermediated Contracting places another supplier between a specialist and the ultimate project customer. ■■■■■■■ ■■■■■■■■■ ■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■ ■■■ ■■ ■■■■■■■■■■■ ■ ■■■■■■■■■■ ■■■■■■■ ■ ■■■■ ■■■■■■ ■ ■■■■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■ ■■ ■■■ ■■■■■ ■■■■■■ This route can provide access to a defined subcontracted package, but it does not establish owner-level approval rights or a direct owner relationship.

The contracting channel is separate from the procurement model. Pioneer's Crosslake case shows advisory oversight alongside disaggregated contractor selection; engaging an adviser alone does not establish resale or intermediated supply. ■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■■■

Figure 28. Global Submarine Communication Cable System Market Size, by Contracting Channel, 2025 (%)

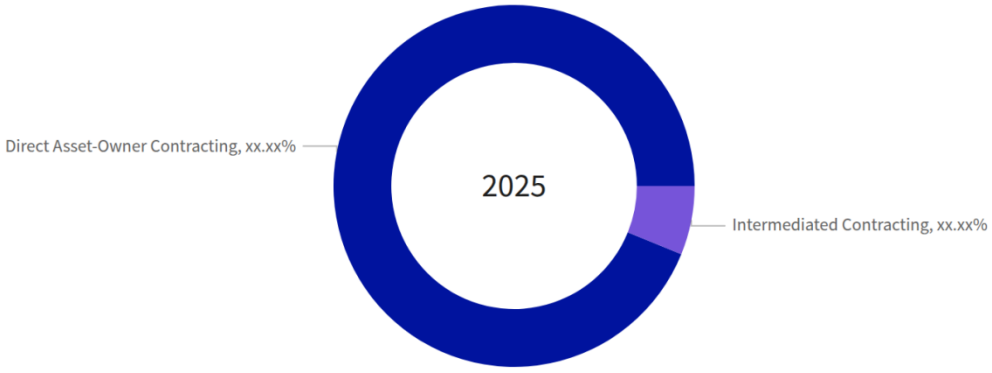


Figure 29. Global Submarine Communication Cable System Market, by Contracting Channel, 2032 (USD Million)

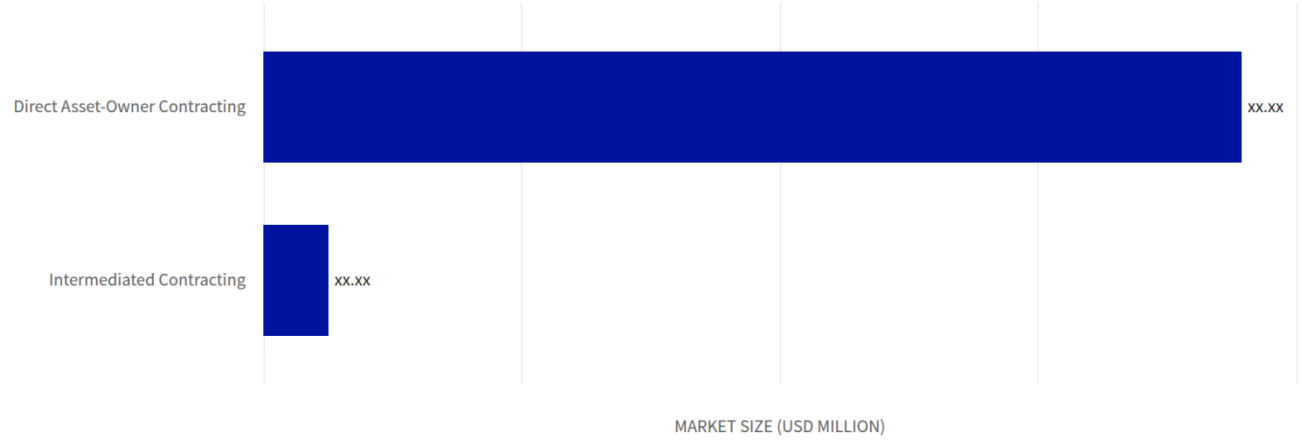


Table 254. Global Submarine Communication Cable System Market, by Contracting Channel growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 255. Global Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Crosslake Fibre

   · The case distinguishes advisory project oversight from contractor selection; adviser participation alone does not establish resale or intermediated supply. ([pioneerconsulting.com](https://www.pioneerconsulting.com/case_studies/crosslake-fibre-a-unique-submarine-cable-beneath-lake-ontario-connecting-toronto-to-buffalo/))

2. Work to start on East Micronesia Cable following contract signing

   · The June xx.xx 2023 announcement records East Micronesia Cable Management Committee members signing with NEC after a competitive tender, distinguishing the contracting authority from funding participants. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

   · Taxonomy evidence: The June xx.xx 2023 government announcement records the project's management committee signing directly with the submarine-system supplier following a competitive tender. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.

3. Fugro responds to media reports on subsea cable work in the Atlantic Ocean

   · Fugro's September xx.xx 2026 disclosure identifies SubCom as the contracting customer for telecommunications-cable survey work and states that the UK government did not contract that work. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.

4. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

5. Nokia Annual Report on Form 20-F 2021

   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

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    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
19. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

17.1. Direct Asset-Owner Contracting

Table 256. Global Submarine Communication Cable System Market Size, by Direct Asset-Owner Contracting, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 257. Global Submarine Communication Cable System Market Size, by Direct Asset-Owner Contracting, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 258. Global Submarine Communication Cable System Market Size, by Direct Asset-Owner Contracting, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Work to start on East Micronesia Cable following contract signing
   - Taxonomy evidence: The commissioning project committee, rather than an independent supply intermediary, signed the East Micronesia Cable contract with NEC. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))
   - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
   - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

17.2. Intermediated Contracting

Table 259. Global Submarine Communication Cable System Market Size, by Intermediated Contracting, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 260. Global Submarine Communication Cable System Market Size, by Intermediated Contracting, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 261. Global Submarine Communication Cable System Market Size, by Intermediated Contracting, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Fugro responds to media reports on subsea cable work in the Atlantic Ocean

   · Taxonomy evidence: The September xx.xx 2026 disclosure identifies SubCom, rather than a government or ultimate network owner, as the customer contracting Fugro's telecommunications-cable survey work. This is a specific intermediated transaction example. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

18. Submarine Communication Cable System Market, by Project Lifecycle

New System Development and System Upgrades and Life Extension respond to different investment decisions. NEC reported East Micronesia Cable System construction completion and handover in May 2026. ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪

Operations and Preventive Maintenance and Fault Repair and Restoration require complementary commitments. ITU terminology distinguishes routine maintenance from repair, while ASN separates warranty support, optional services, and post-warranty renewal. ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪

Decommissioning and Recovery can coexist with modernization rather than occur only after an entire system closes. ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ These examples support a distinct lifecycle purchase, not a worldwide requirement to recover every retired cable.

Figure 30. Global Submarine Communication Cable System Market Size, by Project Lifecycle, 2025 (%)

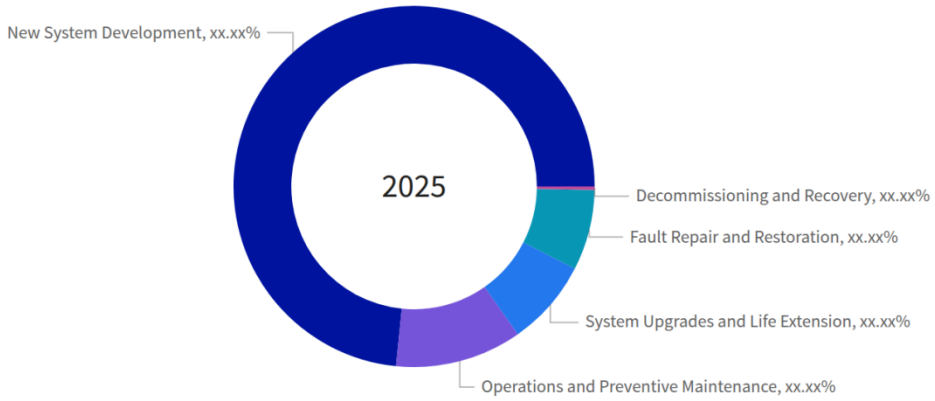


Figure 31. Global Submarine Communication Cable System Market, by Project Lifecycle, 2032 (USD Million)

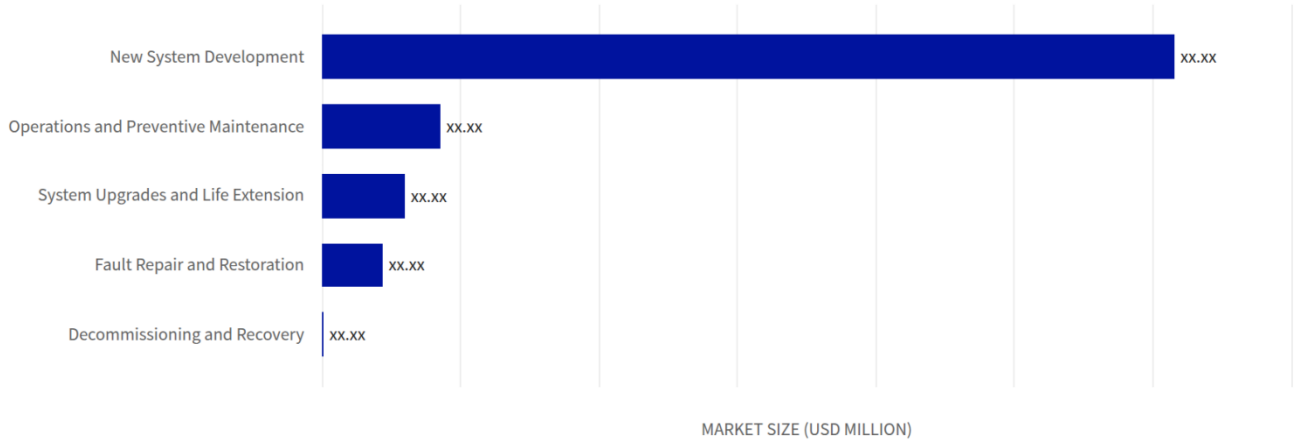


Table 262. Global Submarine Communication Cable System Market, by Project Lifecycle growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 263. Global Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   · ASN separates warranty support, optional services, and post-warranty maintenance-contract renewal, supporting distinct continuing-service commitments. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena's September xx.xx 2026 announcement describes planned equipment and network-control software deployment on existing MONET and SACS systems, not a new connection or an explicit asset-life extension commitment. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))

3. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations

   · NEC reported East Micronesia Cable System construction completion and handover to receiving operators on May xx.xx 2026, establishing a delivered new-system milestone. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))

4. Subsea Telecommunications Fibre Optic Cable Maintenance

   · The portfolio describes vessel call-out and depot coverage under maintenance agreements; it does not establish every owner's entitlement or repair priority. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

5. Recommendation ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems

   · The recommendation distinguishes routine maintenance from repair, supporting separate commercial treatment of preventive support and restoration. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

6. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region

   · Liberty Networks' MAYA-xx.xx announcement combines modernization with removal and recovery of a retired trunk portion, establishing a distinct announced retirement scope rather than completed recovery. ([libertynetworks.com](https://libertynetworks.com/news-and-events/liberty-networks-delivers-next-gen-subsea-connectivity-future-proof-region))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.

7. Final Policy and Permit Guidance for Submarine Cable Projects

   · NOAA's national marine sanctuary guidance addresses removal funding and financial assurance while allowing case-specific consideration of leaving cables in place; it does not establish a global recovery obligation. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

   · Taxonomy evidence: The guidance treats installation, operations, maintenance, repairs and removal as distinguishable submarine-cable project activities. Its jurisdiction is specified U.S. national marine sanctuaries, not all global deployments. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

8. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
9. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
10. TE Connectivity Ltd. 2018 Annual Report
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
11. NEC Financial Results for the First Quarter Ended June 30, 2025
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
12. NEC Financial Results for the Fiscal Year Ended March 31, 2026
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
13. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

14. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
15. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
16. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
17. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

18. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
19. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
20. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

21. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
22. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
23. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
24. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.

18.1. New System Development

Table 264. Global Submarine Communication Cable System Market Size, by New System Development, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 265. Global Submarine Communication Cable System Market Size, by New System Development, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 266. Global Submarine Communication Cable System Market Size, by New System Development, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

RESEARCH SAMPLE REPORT

Sources & Evidence

1. Work to start on East Micronesia Cable following contract signing

   · Taxonomy evidence: The contracted project involves developing a new communications cable connection, including route work, cable manufacture, deployment and new landing infrastructure; the announcement is not a completion record. ([dfat.gov.au](https://www.dfat.gov.au/news/media-release/work-start-east-micronesia-cable-following-contract-signing))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021

   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

4. TE Connectivity Ltd. 2018 Annual Report

   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.

   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

5. NEC Financial Results for the First Quarter Ended June 30, 2025

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

27. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

28. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

29. Unlocking global AI potential with next-generation subsea infrastructure
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

18.2. Operations and Preventive Maintenance

Table 267. Global Submarine Communication Cable System Market Size, by Operations and Preventive Maintenance, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 268. Global Submarine Communication Cable System Market Size, by Operations and Preventive Maintenance, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 269. Global Submarine Communication Cable System Market Size, by Operations and Preventive Maintenance, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Defines routine maintenance as continuing monitoring and preventive supervision of the submarine system.
   ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items)
)

2. Final Policy and Permit Guidance for Submarine Cable Projects

   · Taxonomy evidence: The guidance separately recognizes continuing cable operations, planned maintenance, routine inspections and monitoring over the project's life.
   ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

3. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
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20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
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21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.

18.3. System Upgrades and Life Extension

Table 270. Global Submarine Communication Cable System Market Size, by System Upgrades and Life Extension, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 271. Global Submarine Communication Cable System Market Size, by System Upgrades and Life Extension, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 272. Global Submarine Communication Cable System Market Size, by System Upgrades and Life Extension, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. SUBCO

   · Taxonomy evidence: The government export-finance case documents additional equipment purchases to upgrade capacity on existing Indigo cable segments. This supports upgrade demand, separately from the excluded purchase of network capacity also discussed in the case. ([exportfinance.gov.au](https://www.exportfinance.gov.au/customer-stories/subco/))

2. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region

   · Taxonomy evidence: The August xx.xx 2025 operator announcement describes modernization and reconfiguration of the existing MAYA-xx.xx system with upgraded terminal equipment. Its expected completion date is not proof of completion or extension beyond original design life. ([libertynetworks.com](https://libertynetworks.com/news-and-events/liberty-networks-delivers-next-gen-subsea-connectivity-future-proof-region))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.

25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

18.4. Fault Repair and Restoration

Table 273. Global Submarine Communication Cable System Market Size, by Fault Repair and Restoration, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 274. Global Submarine Communication Cable System Market Size, by Fault Repair and Restoration, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 275. Global Submarine Communication Cable System Market Size, by Fault Repair and Restoration, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.972 (08/2024) - Definition of terms relevant to optical fibre submarine cable systems

   · Taxonomy evidence: Separately defines deep-sea and shallow-water repair of installed submarine cable systems.
   ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items)
)

2. Final Policy and Permit Guidance for Submarine Cable Projects

   · Taxonomy evidence: The guidance distinguishes emergency fault repairs from planned maintenance and routine monitoring. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

3. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

13. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

18.5. Decommissioning and Recovery

Table 276. Global Submarine Communication Cable System Market Size, by Decommissioning and Recovery, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 277. Global Submarine Communication Cable System Market Size, by Decommissioning and Recovery, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 278. Global Submarine Communication Cable System Market Size, by Decommissioning and Recovery, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region

   · Taxonomy evidence: The operator separately announces removal and recovery of a retired portion of the existing trunk alongside the upgrade project, demonstrating a distinct retirement work scope. Recovered-material sales are outside the working revenue boundary. ([libertynetworks.com](https://libertynetworks.com/news-and-events/liberty-networks-delivers-next-gen-subsea-connectivity-future-proof-region))

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.

2. Final Policy and Permit Guidance for Submarine Cable Projects

   · Taxonomy evidence: The guidance recognizes end-of-project cable removal and associated financial responsibility, while allowing case-specific consideration of leaving cables in place. It does not establish universal recovery obligations. ([sanctuaries.noaa.gov](https://sanctuaries.noaa.gov/library/national/cable_guidelines.pdf))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

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   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
19. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

19. Submarine Communication Cable System Market, by Ownership Structure

Sole Ownership and Shared Ownership change control and commitment, not merely the identity of the network beneficiary. ■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■ ■ ■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■ ■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■ ■■■ ■■ ■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■ A private-project description alone does not establish sole title to every associated asset.

Shared Ownership combines participants' interests while requiring explicit approval and continuing-obligation arrangements. The World Bank describes construction and maintenance agreements allocating consortium commitments, with landing-station responsibilities potentially separate from the cable investment. ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■ ■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■ ■■■■■■ ■■■■■■■■■■■■■

Figure 32. Global Submarine Communication Cable System Market Size, by Ownership Structure, 2025 (%)

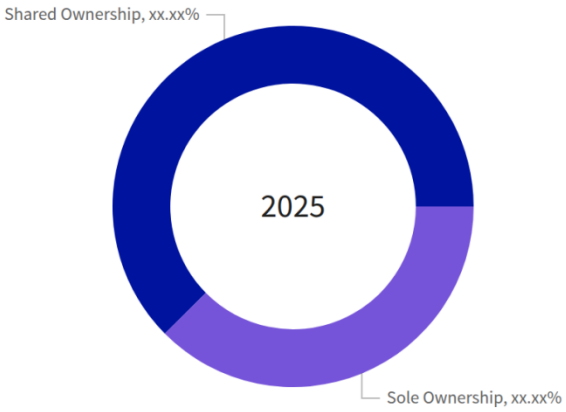


Figure 33. Global Submarine Communication Cable System Market, by Ownership Structure, 2032 (USD Million)

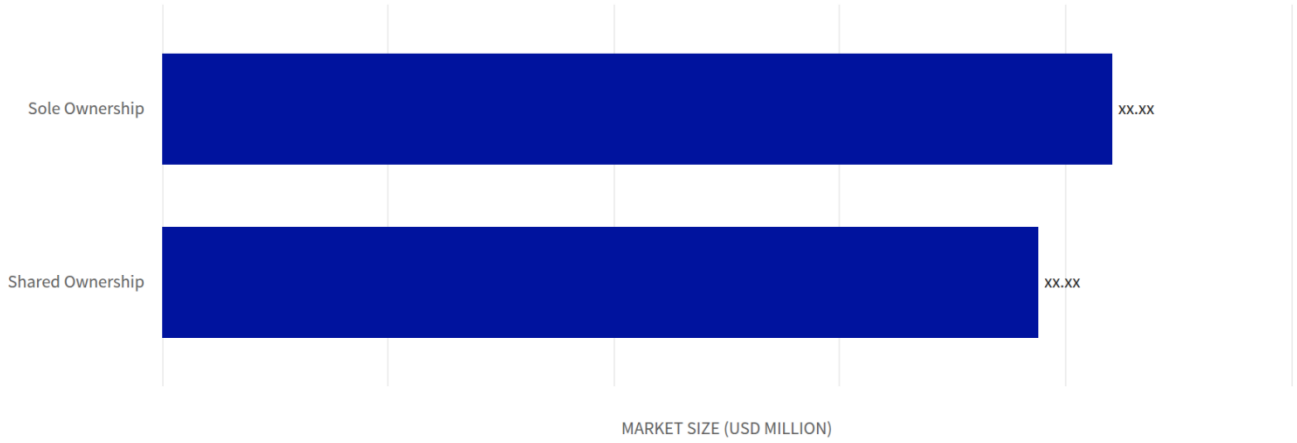


Table 279. Global Submarine Communication Cable System Market, by Ownership Structure growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 280. Global Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore

   · Candle's announcement identifies a management committee, participating organizations, and InfiniVAN's Philippine landing-party role, supporting separate governance and local-delivery responsibilities. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))

   · Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.

   · Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

2. Innovative Business Models for Expanding Fiber-Optic Networks and Closing the Access Gaps

   · The World Bank describes consortium construction and maintenance agreements allocating member commitments and distinguishes landing-station responsibilities from cable investment. This supports agreement-specific governance analysis rather than assuming unilateral member authority. ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/xx.xx-xx.xx-xx.xx-2018-xx.xx-xx.xx-xx.xx-InnovativeBusinessModels.pdf))

   · Taxonomy evidence: The institutional business-model study distinguishes corporate submarine projects, consortium ownership arrangements and shared project vehicles, supporting ownership as a question separate from operation and financing. ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/xx.xx-xx.xx-xx.xx-2018-xx.xx-xx.xx-xx.xx-InnovativeBusinessModels.pdf))

3. Delivering increased connectivity with our first private trans-Atlantic subsea cable

   · Google distinguishes purchasing connectivity, building through a consortium, and private cable development, and explains how private development can align route selection with its network needs. It states that it uses a combination of these approaches. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

4. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

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   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
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    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
16. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
17. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
19. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
20. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.

19.1. Shared Ownership

Table 281. Global Submarine Communication Cable System Market Size, by Shared Ownership, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 282. Global Submarine Communication Cable System Market Size, by Shared Ownership, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 283. Global Submarine Communication Cable System Market Size, by Shared Ownership, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Innovative Business Models for Expanding Fiber-Optic Networks and Closing the Access Gaps
   · Taxonomy evidence: Describes consortium members' ownership agreements and participation in construction and maintenance expenditure, and jointly held vehicles involving public and private stakeholders.
   ([documents1.worldbank.org](https://documents1.worldbank.org/curated/en/xx.xx/pdf/xx.xx-xx.xx-xx.xx-2018-xx.xx-xx.xx-xx.xx-InnovativeBusinessModels.pdf))
2. Delivering increased connectivity with our first private trans-Atlantic subsea cable
   · Taxonomy evidence: The same announcement explicitly describes partners forming a consortium to build a cable together, separately from purchasing transmission capacity.
   ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

3. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
4. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
5. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
6. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
7. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
8. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

9. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
13. ICPC Media Enquiries & Frequently Asked Questions
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
   - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

14. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
15. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
16. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
17. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
18. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

19. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
20. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
21. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
22. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
23. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
24. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
25. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

26. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
27. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
28. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
29. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
31. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

19.2. Sole Ownership

Table 284. Global Submarine Communication Cable System Market Size, by Sole Ownership, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 285. Global Submarine Communication Cable System Market Size, by Sole Ownership, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 286. Global Submarine Communication Cable System Market Size, by Sole Ownership, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Delivering increased connectivity with our first private trans-Atlantic subsea cable

   · Taxonomy evidence: Google's July xx.xx 2018 announcement contrasts privately developed cable projects with consortium investments. It supports single-sponsor project context but does not establish complete current title to every associated asset. ([blog.google](https://blog.google/innovation-and-ai/infrastructure-and-cloud/google-cloud/delivering-increased-connectivity-with-our-first-private-trans-atlantic-subsea-cable/))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
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    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.

18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.

20. Submarine Communication Cable System Market, by Cable Protection Construction

ITU-T G.xx.xx distinguishes Lightweight Cable from Lightweight Protected Cable by the protection requirement, and separately recognizes Single-Armored Cable, Double-Armored Cable, and Rock-Armored Cable for protected shallow-water applications. ■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■ ■■■■■ ■■■■■ ■■■■■ ■■ ■■■ ■ ■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■

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Figure 34. Global Submarine Communication Cable System Market Size, by Cable Protection Construction, 2025 (%)

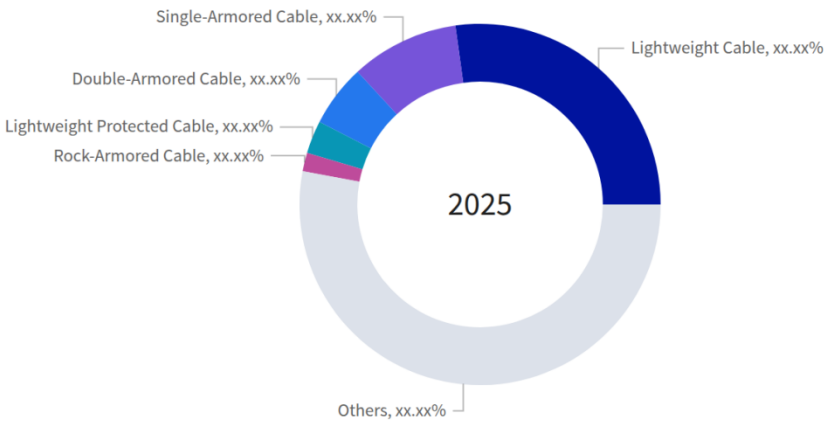


Figure 35. Global Submarine Communication Cable System Market, by Cable Protection Construction, 2032 (USD Million)

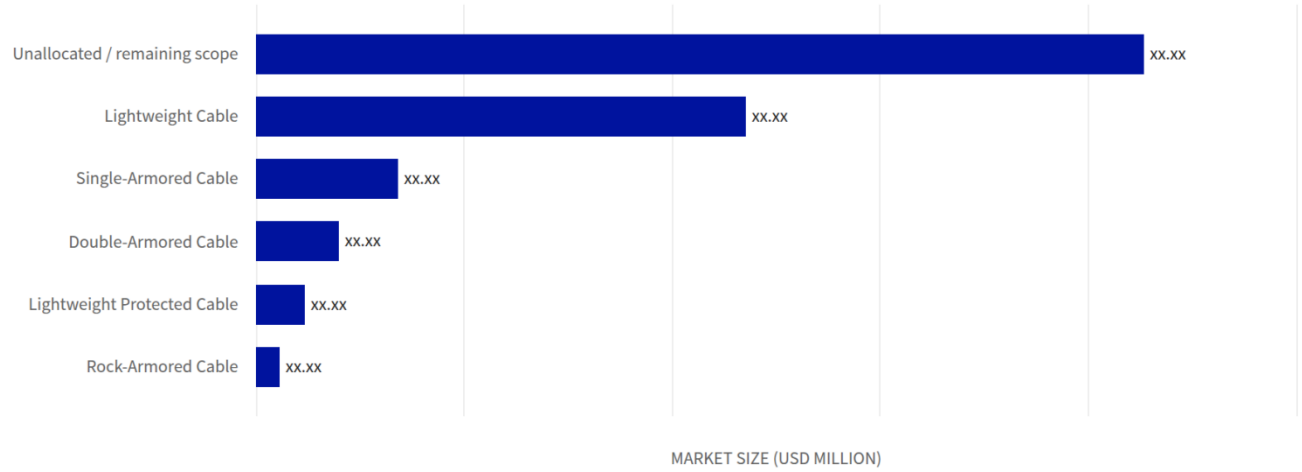


Table 287. Global Submarine Communication Cable System Market, by Cable Protection Construction growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 288. Global Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables

   · ITU-T G.xx.xx recognizes the included protection classes, distinguishes protection requirements, and gives overlapping typical application ranges. Category recognition does not establish project-specific qualification. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

   · Taxonomy evidence: Recognizes five submarine optical-cable protection classes: LW, LWP, SA, DA and RA. Their typical depth ranges overlap, so protection construction is not a substitute for water-depth classification. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))

2. Nokia in 2024 - Annual Report on Form 20-F

   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021

   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

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18. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

19. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.

20.1. Lightweight Cable

Table 289. Global Submarine Communication Cable System Market Size, by Lightweight Cable, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 290. Global Submarine Communication Cable System Market Size, by Lightweight Cable, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 291. Global Submarine Communication Cable System Market Size, by Lightweight Cable, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
   - Taxonomy evidence: LW identifies the separately recognized lightweight protection class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
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   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
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   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
31. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.

20.2. Single-Armored Cable

Table 292. Global Submarine Communication Cable System Market Size, by Single-Armored Cable, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 293. Global Submarine Communication Cable System Market Size, by Single-Armored Cable, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 294. Global Submarine Communication Cable System Market Size, by Single-Armored Cable, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
   - Taxonomy evidence: SA identifies the separately recognized single-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
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   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

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   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
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9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
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    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
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    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
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25. Telxius' international network - Colocation Fact Sheet
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    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
31. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.

20.3. Double-Armored Cable

Table 295. Global Submarine Communication Cable System Market Size, by Double-Armored Cable, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 296. Global Submarine Communication Cable System Market Size, by Double-Armored Cable, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 297. Global Submarine Communication Cable System Market Size, by Double-Armored Cable, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
   - Taxonomy evidence: DA identifies the separately recognized double-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
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26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
31. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.

20.4. Lightweight Protected Cable

Table 298. Global Submarine Communication Cable System Market Size, by Lightweight Protected Cable, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 299. Global Submarine Communication Cable System Market Size, by Lightweight Protected Cable, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 300. Global Submarine Communication Cable System Market Size, by Lightweight Protected Cable, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
   - Taxonomy evidence: LWP identifies the separately recognized lightweight protected class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
2. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.

20.5. Rock-Armored Cable

Table 301. Global Submarine Communication Cable System Market Size, by Rock-Armored Cable, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 302. Global Submarine Communication Cable System Market Size, by Rock-Armored Cable, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 303. Global Submarine Communication Cable System Market Size, by Rock-Armored Cable, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
   - Taxonomy evidence: RA identifies the separately recognized rock-armored class. ([itu.int](https://www.itu.int/rec/dologin_pub.asp?id=T-REC-G.xx.xx-xx.xx-I%xx.xx%21PDF-E&lang=e&type=items))
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   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
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   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

3. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.
4. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
5. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
6. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
7. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

8. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
11. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
12. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

13. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
14. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
15. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
16. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
17. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
18. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.

19. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
20. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
21. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
22. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
23. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
24. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.

25. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
26. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
27. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
28. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
29. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
30. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

21. Submarine Communication Cable System Market, by Region

North America requires jurisdiction-specific review of who controls the system and may participate in its delivery. ■■■ ■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ A commercially available supplier or a neighboring-country authorization does not settle these different requirements.

Latin America presents distinct connectivity constituencies rather than a uniform purchasing model. ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■ ■■■ ■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ Neither example establishes the same procurement conditions throughout Latin America.

■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■ ■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■■■ Regional policy coordination does not replace jurisdictional permissions: the United Kingdom's marine-licensing guidance distinguishes cable laying from associated works. Suppliers should qualify the actual purchasing mandate rather than infer an award from a policy priority.

In the Middle East, access can depend on combined submarine and terrestrial connectivity purchased through a carrier rather than ownership of another complete system. ■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■ ■■■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ This historical example does not establish identical access conditions across Middle Eastern jurisdictions.

African system delivery also depends on the commercial interfaces beyond the submarine segment. ViaTunisia's June 2026 service announcement distinguishes ASN equipment supply, marine delivery by Orange Marine and Elettra Tlc, and onward interconnection through Orange's terrestrial infrastructure. ■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■ ■ ■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■■■

Asia-Pacific contains different purchasing institutions within the same market. ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ An announced corridor and an operating access institution establish different milestones; neither is a substitute for the other.

Figure 36. Global Submarine Communication Cable System Market, by Region: Market share evolution, 2025-2032

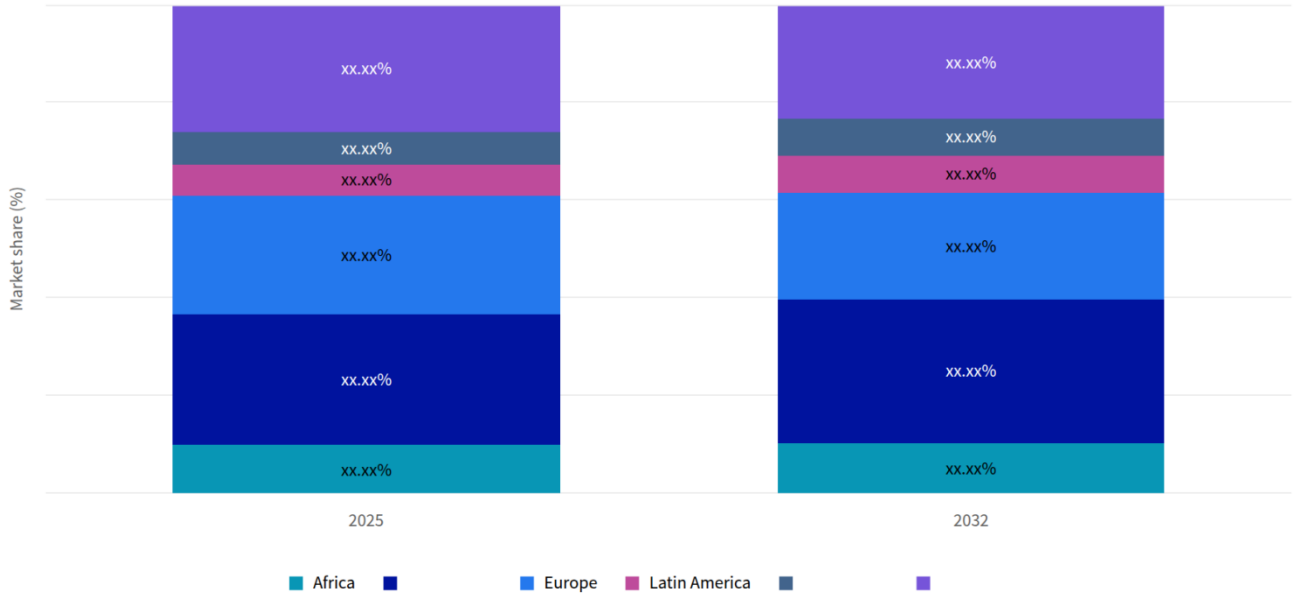


Figure 37. Global Submarine Communication Cable System Market, by Region: Market size by category, 2025

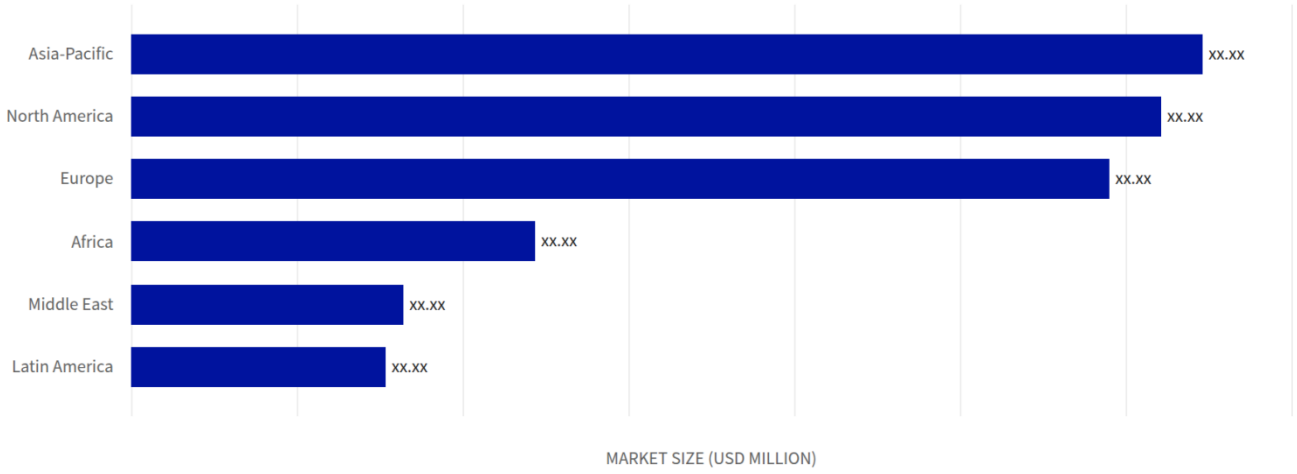


Figure 38. Global Submarine Communication Cable System Market, Regional growth by Optical Fiber Core Architecture, 2025-2032 (CAGR %)

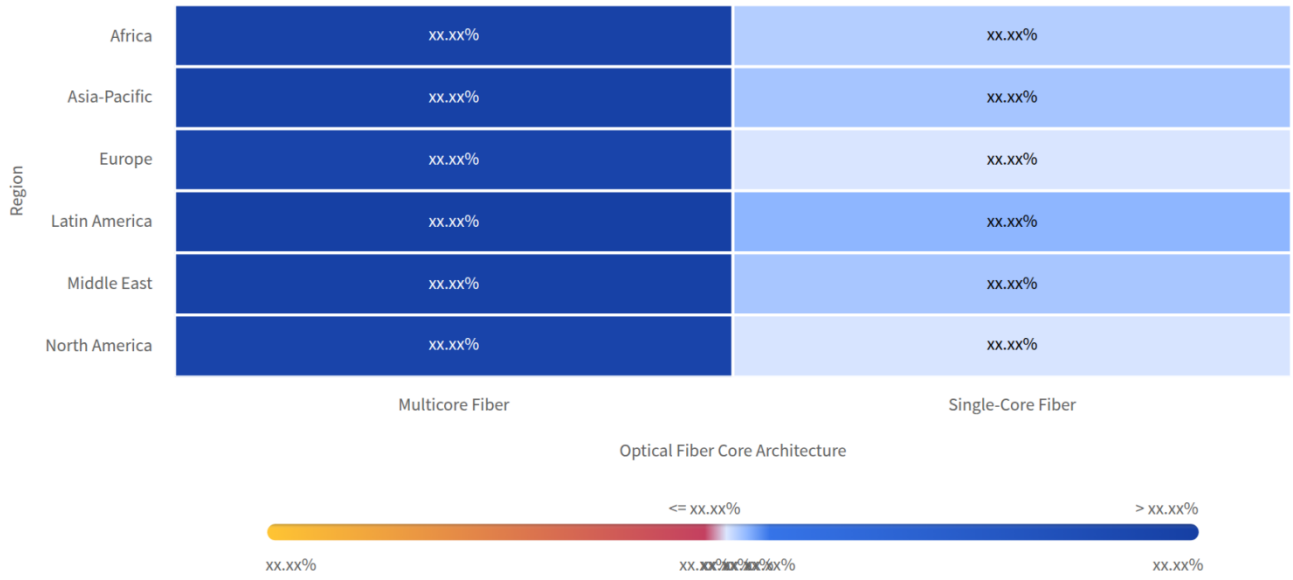


Table 304. Global Submarine Communication Cable System Market, by Region growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 305. Global Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Asia-Pacific	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Europe	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latin America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Middle East	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North America	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System, Intra Asia, 24-Fiber Pair Optical Submarine Cable, Connecting Japan to Singapore

   · The announced Candle corridor connects Japan, Taiwan, the Philippines, Indonesia, Malaysia, and Singapore, with operation scheduled for 2028. Its committee and local landing roles establish a multi-party Asia-Pacific purchasing context, not completed operation. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20250922_01.html))

   · Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.

   · Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.

2. ViaTunisia subsea segment reaches Ready for Service

   · Orange's June 2026 ViaTunisia announcement identifies system equipment, marine delivery, and onward terrestrial interconnection as distinct roles, supporting package-level acceptance and service-accountability assessment for this African example. ([newsroom.orange.com](https://newsroom.orange.com/viatunisia-subsea-segment-reaches-ready-for-service/?lang=eng))

3. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)

   · The World Bank's Micronesia account combines international cable connectivity with competition, open-access institutions, and domestic network development, establishing a purchasing context different from consortium corridor development. ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

4. Joint Communication to strengthen the security and resilience of submarine cables

   · The European Union's February 2025 communication addresses prevention, detection, response, repair, and deterrence, supporting distinct lifecycle purchasing considerations within Europe. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))

5. Apply to lay cables

   · UK marine-licensing guidance distinguishes international cable laying from associated works, supporting limits to region-wide permission generalization. ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))

6. Monet Submarine Cable Selects Equinix for Landing Station and Next-Generation Digital Gateway to Latin America

· Equinix announced selection by MONET investors to provide U.S. landing facilities and services supporting the connection with Brazil and onward interconnection. This establishes a separately purchased access interface.
([investor.equinix.com](https://investor.equinix.com/news-events/press-releases/detail/xx.xx/monet-submarine-cable-selects-equinix-for-landing-station))

7. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42

· The FCC's 2026 order addresses terminal ownership and security-related eligibility, supporting role-specific U.S. review rather than a uniform North American sourcing assumption.
([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))

8. Frequently asked questions: International Submarine Cable Licences Regulations

· Canada distinguishes terminating cable licenses from through cable licenses, establishing a jurisdiction-specific classification within North America.
([ised-isde.canada.ca](https://ised-isde.canada.ca/site/acts-regulations/en/frequently-asked-questions-international-submarine-cable-licences-regulations))

9. BELLA - Building the Europe Link to Latin America

· BELLA supports long-term European-Latin American research and education connectivity through EllaLink and includes a complementary terrestrial academic-network component.
([international-partnerships.ec.europa.eu](https://international-partnerships.ec.europa.eu/policies/programming/programmes/bella-building-europe-link-latin-america_en))

10. GBI Extends Relationship with Ciena

· Ciena's deployment announcement describes GBI's carrier-neutral submarine and terrestrial network serving operators, internet service providers, and governments, including a Gulf-Europe route through Iraq and Turkey. This is a historical commercial example, not proof of uniform present access.
([ciena.com](https://www.ciena.com/about/newsroom/press-releases/GBI-Extends-Relationship-with-Ciena_prx.html))

11. Nokia in 2024 - Annual Report on Form 20-F

· Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

· Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

12. Nokia Annual Report on Form 20-F 2021

· Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.

· Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.

· Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.

· Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.

· Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

13. TE Connectivity Ltd. 2018 Annual Report
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
14. NEC Financial Results for the First Quarter Ended June 30, 2025
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
15. NEC Financial Results for the Fiscal Year Ended March 31, 2026
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
16. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
    - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
17. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

18. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
19. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
20. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
21. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
22. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
23. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.

24. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
25. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
26. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
27. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
28. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
29. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
30. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
31. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
32. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.

33. GBI Wholesale Product Portfolio 2019

- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.

21.1. Asia-Pacific

Table 306. Asia-Pacific Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Indonesia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malaysia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Philippines	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Singapore	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Taiwan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Thailand	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 307. Asia-Pacific Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Indonesia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malaysia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Philippines	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Singapore	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Taiwan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Thailand	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 308. Asia-Pacific Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 309. Asia-Pacific Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 310. Asia-Pacific Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 311. Asia-Pacific Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 312. Asia-Pacific Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 313. Asia-Pacific Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 314. Asia-Pacific Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 315. Asia-Pacific Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 316. Asia-Pacific Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 317. Asia-Pacific Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 318. Asia-Pacific Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 319. Asia-Pacific Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 320. Asia-Pacific Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 321. Asia-Pacific Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 322. Asia-Pacific Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 323. Asia-Pacific Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 324. Asia-Pacific Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 325. Asia-Pacific Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 326. Asia-Pacific Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 327. Asia-Pacific Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 328. Asia-Pacific Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 329. Asia-Pacific Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.

15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-km Candle corridor and planned 2028 operation constrain conditional Asian pipeline timing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Taiwan is a named planned landing jurisdiction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Philippine consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Malaysian consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Singapore is a named planned corridor endpoint.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Indonesian consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.

17. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bifrost's Asian/U.S. owner participation supports a geographically shared purchase model.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Keppel's disclosed participation supports Singaporean operating-owner purchasing exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Keppel's disclosed participation supports Singaporean operating-owner purchasing exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named Telin participation supports Indonesian ownership exposure, without disclosing annual national expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Telin participation supports Indonesian ownership exposure, without disclosing annual national expenditure.
18. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Completed approximately xx.xx-km ADC provides dated multi-country deployment calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Thailand is a connected jurisdiction with a named consortium participant.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Thailand is a connected jurisdiction with a named consortium participant.
19. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
20. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

21. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
22. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
23. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

24. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
25. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

26. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
27. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
28. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

29. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
30. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
31. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
32. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

33. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
34. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
35. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

36. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
37. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
38. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
39. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
40. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

41. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
42. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
43. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
44. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
45. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

46. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

48. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
49. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

21.2. North America

Table 330. North America Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 331. North America Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 332. North America Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 333. North America Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 334. North America Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 335. North America Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 336. North America Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 337. North America Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 338. North America Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 339. North America Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 340. North America Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 341. North America Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 342. North America Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 343. North America Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 344. North America Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 345. North America Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 346. North America Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 347. North America Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 348. North America Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 349. North America Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 350. North America Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 351. North America Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 352. North America Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 353. North America Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
18. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
19. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
20. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

21. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
22. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
23. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

24. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
25. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

26. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
27. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
28. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

29. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
30. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
31. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
32. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

33. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
34. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

35. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
36. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
37. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

38. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
39. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
40. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
41. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

42. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
43. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
44. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
45. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
46. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

47. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
48. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

49. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
50. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

21.3. Europe

Table 354. Europe Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Austria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Norway	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Switzerland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 355. Europe Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Austria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Norway	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Switzerland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 356. Europe Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 357. Europe Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 358. Europe Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 359. Europe Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 360. Europe Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 361. Europe Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 362. Europe Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 363. Europe Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 364. Europe Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 365. Europe Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 366. Europe Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 367. Europe Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 368. Europe Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 369. Europe Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 370. Europe Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 371. Europe Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 372. Europe Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 373. Europe Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 374. Europe Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 375. Europe Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 376. Europe Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 377. Europe Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Medusa's nine-country, twelve-landing and xx.xx-km scope constrains interregional project attribution.
18. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Selected CEF grants constrain differentiated European delivery and upgrade premises, not annual realized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx maximum grant for Sweden-Denmark subsea connection supports conditional pipeline exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Sweden-Denmark connection and repair-preparedness selections support distinct expansion and lifecycle premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Finnish cross-border selections constrain northern connectivity pipeline assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Porto Santo and Azores selections support domestic-island purchasing exposure.
19. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Domestic island purchases qualify a Europe model restricted to intercontinental systems.
20. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
21. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Official Blue Raman estimate of EUR xx.xx and xx.xx km provides interregional purchase-scale calibration.

22. BEREC Report on domestic submarine cables connectivity in Europe - BoR (25) 171
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary NRA questionnaire found no reported sub-fluvial systems among responding landlocked countries; mixed commercial-source aggregate counts are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary NRA questionnaire found no reported sub-fluvial systems among responding landlocked countries; mixed commercial-source aggregate counts are excluded.
23. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
24. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

25. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
26. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

27. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
28. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

29. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
30. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
31. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

32. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
33. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
34. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
35. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

36. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
37. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
38. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

39. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
40. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
41. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
42. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
43. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

44. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
45. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
46. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
47. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
48. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

49. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
50. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

51. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
52. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

21.4. Africa

Table 378. Africa Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Egypt	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Kenya	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Nigeria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 379. Africa Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Egypt	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Kenya	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Nigeria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 380. Africa Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 381. Africa Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 382. Africa Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 383. Africa Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 384. Africa Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 385. Africa Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 386. Africa Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 387. Africa Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 388. Africa Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 389. Africa Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 390. Africa Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 391. Africa Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 392. Africa Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 393. Africa Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 394. Africa Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 395. Africa Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 396. Africa Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 397. Africa Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 398. Africa Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 399. Africa Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 400. Africa Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 401. Africa Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Egypt is included in the official North African project scope; project status is not annual expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Egypt is included in the official North African project scope; project status is not annual expenditure.
18. 2Africa Cable - Updates
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named Egyptian Red Sea/Mediterranean interfaces support landing/crossing responsibility rather than complete-system spending attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Egyptian Red Sea/Mediterranean interfaces support landing/crossing responsibility rather than complete-system spending attribution.
19. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Waterworth names South Africa within a multi-year announced corridor; no annual country payment or completed operation is inferred.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

20. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
21. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
22. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

23. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
24. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

25. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
26. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
27. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

28. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
29. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
30. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
31. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

32. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
33. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
34. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

35. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
36. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
37. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
38. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
39. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

40. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
41. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
42. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
43. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
44. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

45. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
46. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

47. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
48. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

21.5. Middle East

Table 402. Middle East Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Israel	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Qatar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Saudi Arabia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Turkey	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Arab Emirates	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 403. Middle East Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Israel	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Qatar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Saudi Arabia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Turkey	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Arab Emirates	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 404. Middle East Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 405. Middle East Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 406. Middle East Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 407. Middle East Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 408. Middle East Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 409. Middle East Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 410. Middle East Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 411. Middle East Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 412. Middle East Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 413. Middle East Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 414. Middle East Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 415. Middle East Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 416. Middle East Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 417. Middle East Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 418. Middle East Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 419. Middle East Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 420. Middle East Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 421. Middle East Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 422. Middle East Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 423. Middle East Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 424. Middle East Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 425. Middle East Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named intermediate Middle Eastern route context supports shared, non-additive attribution.
18. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical xx.xx-plus-km integrated network supports channel/endpoint distinctions; terrestrial kilometres and connectivity sales are excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Qatari endpoint footprint supports operating exposure without assigning the entire network to headquarters.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Qatari endpoint footprint supports operating exposure without assigning the entire network to headquarters.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Turkish interregional route context supports mixed submarine/terrestrial attribution limits.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Turkish interregional route context supports mixed submarine/terrestrial attribution limits.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: UAE endpoint footprint supports Gulf operating exposure, not uniform access rights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: UAE endpoint footprint supports Gulf operating exposure, not uniform access rights.

19. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
20. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
21. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

22. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
23. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

24. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
25. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
26. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

27. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
28. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
29. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

31. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
32. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

33. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
34. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
35. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

36. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
37. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
38. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
39. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

40. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
41. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
42. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
43. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
44. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

45. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
46. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

47. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
48. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

21.6. Latin America

Table 426. Latin America Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Argentina	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Chile	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Colombia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Peru	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 427. Latin America Submarine Communication Cable System Market Size, by Region, 2017-2032 (USD Million)

Region	2023	2024	2025	2026	2027	2032	CAGR (%)
Argentina	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Chile	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Colombia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Peru	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 428. Latin America Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 429. Latin America Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 430. Latin America Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 431. Latin America Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 432. Latin America Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 433. Latin America Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 434. Latin America Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 435. Latin America Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 436. Latin America Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 437. Latin America Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 438. Latin America Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 439. Latin America Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 440. Latin America Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 441. Latin America Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 442. Latin America Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 443. Latin America Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 444. Latin America Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 445. Latin America Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 446. Latin America Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 447. Latin America Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 448. Latin America Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 449. Latin America Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary landing/colocation inventory constrains commercial-owner geography; it is not a spending census.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Las Toninas landing inventory supports Argentine continuing-asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Las Toninas landing inventory supports Argentine continuing-asset exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Arica and Valparaíso landing locations constrain Chilean coastal-asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Arica and Valparaíso landing locations constrain Chilean coastal-asset exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Barranquilla landing location supports Colombian asset-service exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Barranquilla landing location supports Colombian asset-service exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lurín landing location supports Peruvian asset-service exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lurín landing location supports Peruvian asset-service exposure.

18. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
19. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
20. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

21. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
22. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

23. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
24. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

25. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
26. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
27. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

28. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
29. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
31. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22. Submarine Communication Cable System Market, by Group

The Americas provide a cross-border maintenance lens, not a single repair entitlement. ■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■ ■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■ ■■■■ ■■■■■ ■■■ ■■■■■ ■■■■■■■ ■■ ■■■■ ■■ ■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■ ■■■■■■ Shared coverage can consolidate access, but published service geography does not establish membership, priority, or an owner's current agreement.

■■■■■■■ ■■■■■■ ■■■■ ■ ■■■■■■ ■■ ■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■ ■■■■■ Buyers should identify responsibility for the purchased interregional connection and its handoffs. That local milestone did not itself establish complete-system operation or purchaser access across the broader group.

ASEAN offers a shared landing-access framework with material constituent qualifications. ■■■ ■■■■■ ■■■■■ ■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■■ ■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■ ■■■■■■■■ ■■■■■■ ■■■■■■ The shared principle is commercially useful, but it does not establish an identical facility entitlement in every member.

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Australasia should be evaluated as a coordinated network footprint with separate permission regimes. Australia requires a licensed telecommunications carrier to apply for an applicable submarine installation permit and retains state or territory requirements. ■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■ ■ ■■■■■■■■■ ■■■■■■■■ ■ ■■■■■■■■■ ■■■■■■■■■ ■■ ■■■ ■■■■■■■■■■■■ ■■ ■■■ ■■■■■■■■■■■■■ ■■ ■■■ ■■■■■■■

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The European Union supplies a common resilience agenda across its members, including prevention, detection, response, repair, and deterrence. Buyers can use that lifecycle framing to separate security monitoring from marine readiness and new construction. ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪ ▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪

BRICS activity remains distinguishable from a construction award. The September xx.xx 2026 New Delhi declaration records completion of a cable-requirements brief and supports continued voluntary dialogue and further steps toward a feasibility study, respecting national priorities and regulations. ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪

G7 cooperation emphasizes secure international routes, maintenance, repair, and supply-chain considerations. ▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ The policy can inform buyer requirements, but it is not a harmonized landing license, supplier clearance, or contract award across the United States, Canada, Japan, and European constituents.

▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪ ▪▪ ▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ Operators should not treat security activity as their marine repair agreement, and vendors should establish the authorized customer before treating alliance attention as accessible demand. A Baltic initiative cannot establish equivalent arrangements across every NATO geography.

These groups are overlapping, non-additive analytical lenses. Nordic, European Union, G7, and NATO coverage can concern the same jurisdictions and underlying assets; Americas and Europe, Middle East & Africa can describe different parts of one cross-border system. ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪

Figure 39. Global Submarine Communication Cable System Market Size, by Group, 2025 vs 2026 vs 2032

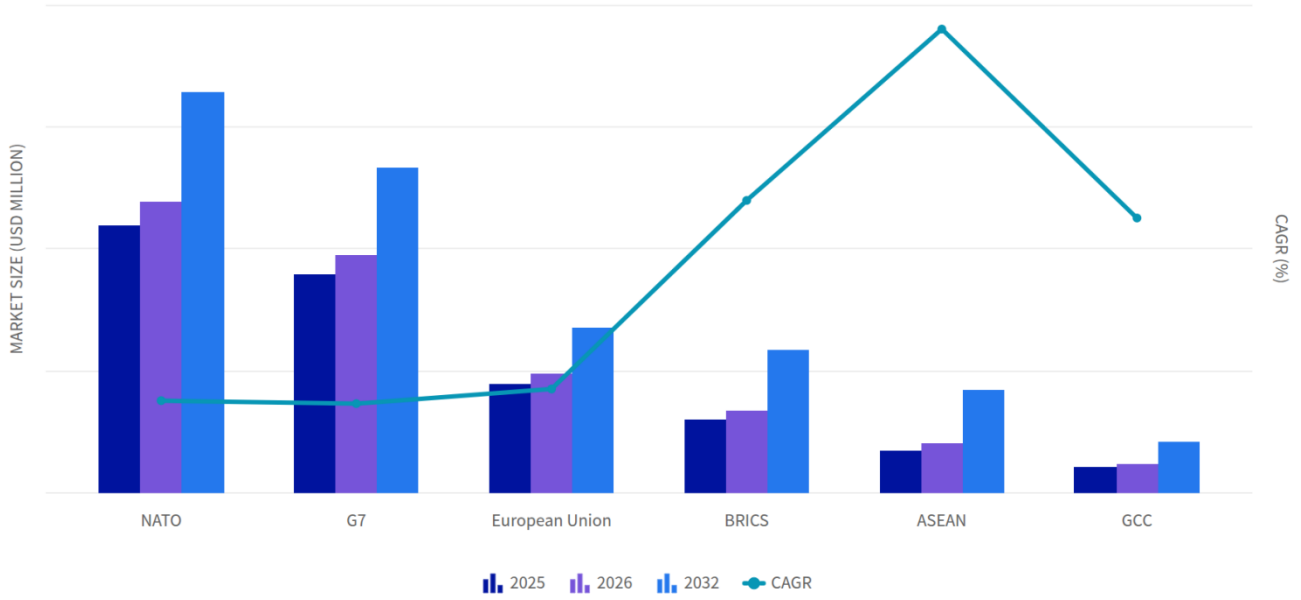


Table 450. Global Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
ASEAN	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
BRICS	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
European Union	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
G7	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
GCC	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
NATO	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Sources & Evidence

1. Joint Communication to strengthen the security and resilience of submarine cables

   · The communication establishes a common EU resilience agenda. Its policy character supports distinguishing coordination from an individual procurement award or owner-specific service entitlement. ([digital-strategy.ec.europa.eu](https://digital-strategy.ec.europa.eu/en/library/joint-communication-strengthen-security-and-resilience-submarine-cables))

2. Subsea Telecommunications Fibre Optic Cable Maintenance

   · Global Marine describes the Atlantic Cable Maintenance Agreement as a member-run cooperative with coverage spanning North and South Atlantic waters, European waters, the Caribbean, and the South East Pacific. This supports distinguishing service geography from group labels and actual contractual entitlement. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))

3. GBI Extends Relationship with Ciena

   · The reported GBI deployment connects GCC customers with destinations outside the group through combined submarine and terrestrial infrastructure, supporting endpoint- and service-specific comparison rather than a uniform constituent offering. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/GBI-Extends-Relationship-with-Ciena_prx.html))

4. SEA-ME-WE-6 Subsea Cable Completes its Two Landings and Crossing Activities in Egypt
   · SubCom and Telecom Egypt reported completed Egyptian landings and terrestrial crossing arrangements on July xx.xx 2025, while distinguishing this milestone from future complete-system operation. ([subcom.com](https://www.subcom.com/documents/2025/SEA-ME-WE-6_Subsea_Cable_Completes_Two_Landings_and_Crossing_Activities_in_Egypt-2JULY2025.pdf))
5. ASEAN Trade in Services Agreement
   · The ATISA telecommunications annex provides reasonable, nondiscriminatory landing-access principles, qualifies Indonesia's application by domestic law, and excludes physical co-location in Vietnam while allowing virtual co-location. These differences support national implementation and agreement review. ([agreement.asean.org](https://agreement.asean.org/media/download/xx.xx.pdf))
6. Strengthened cooperation on the safety of critical underwater infrastructure
   · The November 2024 Nordic-Baltic ministerial statement treats underwater electronic-communications infrastructure as critical and supports joint work with the EU and NATO. It establishes coordination priorities rather than a common vendor appointment. ([norden.org](https://www.norden.org/en/news/strengthened-cooperation-safety-critical-underwater-infrastructure))
7. NATO launches 'Baltic Sentry' to increase critical infrastructure security
   · NATO announced Baltic Sentry in January 2025 to increase security of critical underwater infrastructure in the Baltic Sea. Its security scope supports distinguishing the initiative from an owner's commercial repair agreement and limits extrapolation across NATO geographies. ([nato.int](https://www.nato.int/en/news-and-events/articles/news/2025/xx.xx/xx.xx/nato-launches-baltic-sentry-to-increase-critical-infrastructure-security))
8. Apply to install a submarine cable
   · ACMA requires a licensed telecommunications carrier as installation-permit applicant and identifies separate state and territory requirements, establishing jurisdiction-specific responsibilities within Australasia. ([acma.gov.au](https://www.acma.gov.au/apply-install-submarine-cable))
9. Submarine cabling
   · New Zealand's EPA identifies specified exclusive-economic-zone submarine cabling as permitted activity subject to conditions, establishing a different permission framework from Australia. ([epa.govt.nz](https://www.epa.govt.nz/industry-areas/eez-marine-activities/undertake-an-activity-in-the-eez/submarine-cabling/))
10. BRICS New Delhi Declaration: Building for Resilience, Innovation, Cooperation and Sustainability (September 12, 2026)
    · The September xx.xx 2026 BRICS declaration records a completed cable-requirements brief and voluntary dialogue on further feasibility work respecting national priorities and regulations; it does not announce a construction award or operating system. ([pmindia.gov.in](https://www.pmindia.gov.in/en/news_updates/brics-new-delhi-declaration-building-for-resilience-innovation-cooperation-and-sustainability-september-xx.xx-2026/))
11. G7 Ministerial Declaration
    · The 2024 G7 ministerial declaration's cable-connectivity annex supports secure international routes, maintenance, repair, and cooperation with private participants and development institutions, including beyond G7 members. It is a policy statement rather than a common licensing instrument or award. ([gov.uk](https://www.gov.uk/government/publications/g7-ministerial-declaration-deployment-of-ai-and-innovation/g7-ministerial-declaration))

12. Nokia in 2024 - Annual Report on Form 20-F
- Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

13. Nokia Annual Report on Form 20-F 2021
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

14. TE Connectivity Ltd. 2018 Annual Report
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

15. NEC Financial Results for the First Quarter Ended June 30, 2025
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

16. NEC Financial Results for the Fiscal Year Ended March 31, 2026
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

17. SubCom of Newington plans multi-million-dollar expansion
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
- Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

18. NEC IR Day 2022 - Global Business
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.
19. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
    - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
    - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
20. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
    - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
    - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
    - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
21. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
22. ICPC Media Enquiries & Frequently Asked Questions
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

23. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
24. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
25. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
26. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
27. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.

22.1. NATO

Table 451. NATO Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Albania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Bulgaria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Croatia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Czech Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 451 - continued

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Estonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Greece	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Hungary	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Iceland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latvia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lithuania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Luxembourg	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Montenegro	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North Macedonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Norway	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Romania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovakia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovenia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Turkey	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 452. NATO Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Albania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Bulgaria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 452 - continued

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Croatia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Czech Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Estonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Greece	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Hungary	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Iceland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latvia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lithuania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Luxembourg	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Montenegro	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
North Macedonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Norway	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Romania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovakia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovenia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Turkey	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 453. NATO Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 454. NATO Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 455. NATO Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 456. NATO Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 457. NATO Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 458. NATO Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 459. NATO Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 460. NATO Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 461. NATO Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 462. NATO Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 463. NATO Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 464. NATO Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 465. NATO Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 466. NATO Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 467. NATO Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 468. NATO Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 469. NATO Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 470. NATO Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 471. NATO Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 472. NATO Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 473. NATO Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 474. NATO Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
18. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx maximum grant for Sweden-Denmark subsea connection supports conditional pipeline exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Sweden-Denmark connection and repair-preparedness selections support distinct expansion and lifecycle premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Finnish cross-border selections constrain northern connectivity pipeline assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Porto Santo and Azores selections support domestic-island purchasing exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: East Aegean Network selection supports a differentiated Greek domestic/regional purchasing premise.
19. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
20. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
21. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.

22. The North Shore submarine cable sets sail: TELUS kicks off deployment work
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.

23. GBI Wholesale Product Portfolio 2019
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Turkish interregional route context supports mixed submarine/terrestrial attribution limits.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Turkish interregional route context supports mixed submarine/terrestrial attribution limits.

24. BEREC Report on domestic submarine cables connectivity in Europe - BoR (25) 171
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: No reported domestic sub-fluvial systems constrains the estimate to a small owner-support allowance.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: No reported domestic sub-fluvial systems constrains the estimate to a small owner-support allowance.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance is not an observed contract.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance is not an observed contract.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance remains weakly supported.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance remains weakly supported.

25. Protection of Undersea Telecommunication Cables: Issues for Congress
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

26. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
27. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
28. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

29. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
30. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

31. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
32. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
33. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

34. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
35. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
36. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
37. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

38. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
39. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

40. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
41. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
42. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

43. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
44. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
45. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
46. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

47. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
48. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
49. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
50. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
51. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

52. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
53. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

54. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
55. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22.2. G7

Table 475. G7 Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 476. G7 Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 477. G7 Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 478. G7 Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 479. G7 Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 480. G7 Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 481. G7 Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 482. G7 Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 483. G7 Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 484. G7 Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 485. G7 Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 486. G7 Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 487. G7 Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 488. G7 Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 489. G7 Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 490. G7 Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 491. G7 Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 492. G7 Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 493. G7 Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 494. G7 Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 495. G7 Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 496. G7 Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 497. G7 Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 498. G7 Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   · Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   · Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
18. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
19. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
20. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
21. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
22. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

23. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
24. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
25. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

26. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
27. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

28. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
29. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
30. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

31. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
32. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
33. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
34. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

35. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
36. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

37. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
38. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
39. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

40. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
41. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
42. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
43. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

44. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
45. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
46. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
47. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
48. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

49. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
50. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

51. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
52. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22.3. European Union

Table 499. European Union Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Austria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Bulgaria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Croatia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cyprus	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Czech Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Estonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Greece	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Hungary	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ireland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latvia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lithuania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Luxembourg	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malta	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Romania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovakia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovenia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 500. European Union Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Austria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Belgium	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Bulgaria	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Croatia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cyprus	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Czech Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Denmark	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Estonia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Finland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Greece	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Hungary	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ireland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Latvia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lithuania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Luxembourg	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malta	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Netherlands	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Poland	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Portugal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Romania	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovakia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Slovenia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sweden	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 501. European Union Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 502. European Union Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 503. European Union Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 504. European Union Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 505. European Union Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 506. European Union Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 507. European Union Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 508. European Union Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 509. European Union Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 510. European Union Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 511. European Union Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 512. European Union Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 513. European Union Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 514. European Union Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 515. European Union Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 516. European Union Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 517. European Union Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 518. European Union Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 519. European Union Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 520. European Union Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 521. European Union Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 522. European Union Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. AFR-IX MEDUSA SUBMARINE CABLE SYSTEM
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Cyprus is a named purchaser-beneficiary landing jurisdiction in the official project scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Cyprus is a named purchaser-beneficiary landing jurisdiction in the official project scope.
18. C(2025)7293: CEF Digital selected projects, 3 November 2025
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx maximum grant for Sweden-Denmark subsea connection supports conditional pipeline exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Sweden-Denmark connection and repair-preparedness selections support distinct expansion and lifecycle premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Finnish cross-border selections constrain northern connectivity pipeline assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx maximum GO-xx.xx modernization grant supports an upgrade purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Porto Santo and Azores selections support domestic-island purchasing exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx PISCES Phase xx.xx selection constrains conditional Atlantic pipeline purchasing.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: East Aegean Network selection supports a differentiated Greek domestic/regional purchasing premise.
19. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
20. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.

21. BEREC Report on domestic submarine cables connectivity in Europe - BoR (25) 171
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary NRA questionnaire found no reported sub-fluvial systems among responding landlocked countries; mixed commercial-source aggregate counts are excluded.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary NRA questionnaire found no reported sub-fluvial systems among responding landlocked countries; mixed commercial-source aggregate counts are excluded.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: No reported domestic sub-fluvial systems constrains the estimate to a small owner-support allowance.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: No reported domestic sub-fluvial systems constrains the estimate to a small owner-support allowance.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance is not an observed contract.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance is not an observed contract.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance remains weakly supported.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary questionnaire counterevidence limits domestic-deployment assumptions; positive allowance remains weakly supported.
22. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.

23. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
24. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
25. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

26. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
27. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

28. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
29. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
30. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

31. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
32. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
33. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
34. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

35. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
36. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
37. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

38. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
39. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
40. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
41. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
42. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

43. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
44. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
45. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
46. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
47. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

48. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
49. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

50. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
51. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22.4. BRICS

Table 523. BRICS Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 524. BRICS Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Africa	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 525. BRICS Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 526. BRICS Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 527. BRICS Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 528. BRICS Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 529. BRICS Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 530. BRICS Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 531. BRICS Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 532. BRICS Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 533. BRICS Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 534. BRICS Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 535. BRICS Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 536. BRICS Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 537. BRICS Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 538. BRICS Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 539. BRICS Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 540. BRICS Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 541. BRICS Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 542. BRICS Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 543. BRICS Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 544. BRICS Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 545. BRICS Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 546. BRICS Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   · Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   · Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
18. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
19. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
20. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Waterworth names South Africa within a multi-year announced corridor; no annual country payment or completed operation is inferred.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

21. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
22. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
23. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

24. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
25. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

26. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
27. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
28. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

29. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
30. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
31. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
32. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

33. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
34. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
35. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

36. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
37. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
38. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
39. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
40. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

41. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
42. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
43. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
44. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
45. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

46. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

48. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
49. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22.5. ASEAN

Table 547. ASEAN Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Brunei	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cambodia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Indonesia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lao People's Democratic Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malaysia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Myanmar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Philippines	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Singapore	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Thailand	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vietnam	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 548. ASEAN Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Brunei	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cambodia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Indonesia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lao People's Democratic Republic	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Malaysia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Myanmar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Philippines	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Singapore	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Thailand	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vietnam	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 549. ASEAN Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 550. ASEAN Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 551. ASEAN Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 552. ASEAN Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 553. ASEAN Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 554. ASEAN Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 555. ASEAN Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 556. ASEAN Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 557. ASEAN Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 558. ASEAN Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 559. ASEAN Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 560. ASEAN Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 561. ASEAN Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 562. ASEAN Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 563. ASEAN Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 564. ASEAN Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 565. ASEAN Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 566. ASEAN Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 567. ASEAN Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 568. ASEAN Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 569. ASEAN Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 570. ASEAN Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Philippine consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Malaysian consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Singapore is a named planned corridor endpoint.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Indonesian consortium/landing participation supports a conditional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Keppel’s Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Keppel's disclosed participation supports Singaporean operating-owner purchasing exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Keppel's disclosed participation supports Singaporean operating-owner purchasing exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named Telin participation supports Indonesian ownership exposure, without disclosing annual national expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Telin participation supports Indonesian ownership exposure, without disclosing annual national expenditure.
18. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Thailand is a connected jurisdiction with a named consortium participant.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Thailand is a connected jurisdiction with a named consortium participant.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Vietnam is a connected jurisdiction with a named consortium participant.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Vietnam is a connected jurisdiction with a named consortium participant.
19. Mct Submarine cable has now connected to Cambodia, Mittepheap landing station, Sihanoukville
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Primary account of approximately xx.xx-km MCT and approximately USD xx.xx project cost calibrates a small Cambodian asset pool, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Primary account of approximately xx.xx-km MCT and approximately USD xx.xx project cost calibrates a small Cambodian asset pool, not annual revenue.

20. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
21. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
22. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

23. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
24. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

25. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
26. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
27. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

28. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
29. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
30. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
31. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

32. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
33. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

34. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
35. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
36. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

37. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
38. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
39. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
40. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

41. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
42. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
43. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
44. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
45. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

46. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

48. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
49. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

22.6. GCC

Table 571. GCC Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Bahrain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Kuwait	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Oman	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Qatar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Saudi Arabia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Arab Emirates	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 572. GCC Submarine Communication Cable System Market Size, by Group, 2017-2032 (USD Million)

Group	2023	2024	2025	2026	2027	2032	CAGR (%)
Bahrain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Kuwait	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Oman	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Qatar	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Saudi Arabia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Arab Emirates	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx

Table 573. GCC Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 574. GCC Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 575. GCC Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 576. GCC Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 577. GCC Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 578. GCC Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 579. GCC Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 580. GCC Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 581. GCC Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 582. GCC Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 583. GCC Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 584. GCC Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 585. GCC Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 586. GCC Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 587. GCC Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 588. GCC Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 589. GCC Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 590. GCC Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 591. GCC Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 592. GCC Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 593. GCC Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 594. GCC Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. GBI Wholesale Product Portfolio 2019
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bahraini endpoint footprint supports a limited Gulf operating-pool premise, not current annual sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bahraini endpoint footprint supports a limited Gulf operating-pool premise, not current annual sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Kuwaiti endpoint footprint supports a limited Gulf operating-pool premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Kuwaiti endpoint footprint supports a limited Gulf operating-pool premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Qatari endpoint footprint supports operating exposure without assigning the entire network to headquarters.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Qatari endpoint footprint supports operating exposure without assigning the entire network to headquarters.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: UAE endpoint footprint supports Gulf operating exposure, not uniform access rights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: UAE endpoint footprint supports Gulf operating exposure, not uniform access rights.

18. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
19. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
20. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

21. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
22. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

23. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
24. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
25. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

26. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
27. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
28. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
29. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

30. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai'i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23. Submarine Communication Cable System Market, by Country

In the United States, sponsors should review the regulated role of the cable owner, terminal owner, and relevant supplier before procurement commitments. The FCC's 2026 order distinguishes adopted requirements from implementing provisions with delayed effectiveness. ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■■■ ■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■ ■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■

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India's cable-landing access framework distinguishes acquired international connectivity rights from access to the landing station. It provides fair, nondiscriminatory access for eligible Indian telecommunications entities and requires an approved reference interconnect offer. ■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■■■■ ■■■■■■ ■■■■■ ■■■■ ■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■

Within the United Kingdom's Marine Management Organisation remit, international-cable licensing treatment does not authorize every associated work. Owners should distinguish the cable-laying permission from the permissions governing the rest of the landing package before fixing contractual delivery milestones. ■■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■ ■■■■■ ■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■■■

France demonstrates a supplier-governance consideration separate from landing access. The government's acquisition of control over ASN was explicitly linked to digital sovereignty and strategic industrial capability. ■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■ ■■■ ■■■■■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■■ ■■ ■■■■■■■ ■■ ■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■■■■■

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and service obligations for their purchased connection rather than interpret that local milestone as completed international service.

Brazil's BELLA participation illustrates connectivity access serving a defined research and education constituency. The program pairs EllaLink connectivity with terrestrial academic-network development, including connections involving Chile and Colombia. ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■ ■■ ■■■■■ ■■■■■■■■■■■

Micronesia provides a different country-level purchasing condition: international infrastructure is accompanied by an Open Access Entity, regulatory institutions, and domestic network development. ■■■ ■■■■■■ ■■■■■ ■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■■ This broader program requires more coordination than cable delivery alone, but addresses constraints that an additional international asset would not necessarily resolve.

Figure 40. Global Submarine Communication Cable System Market Size, by Country, 2025 vs 2032 (%)

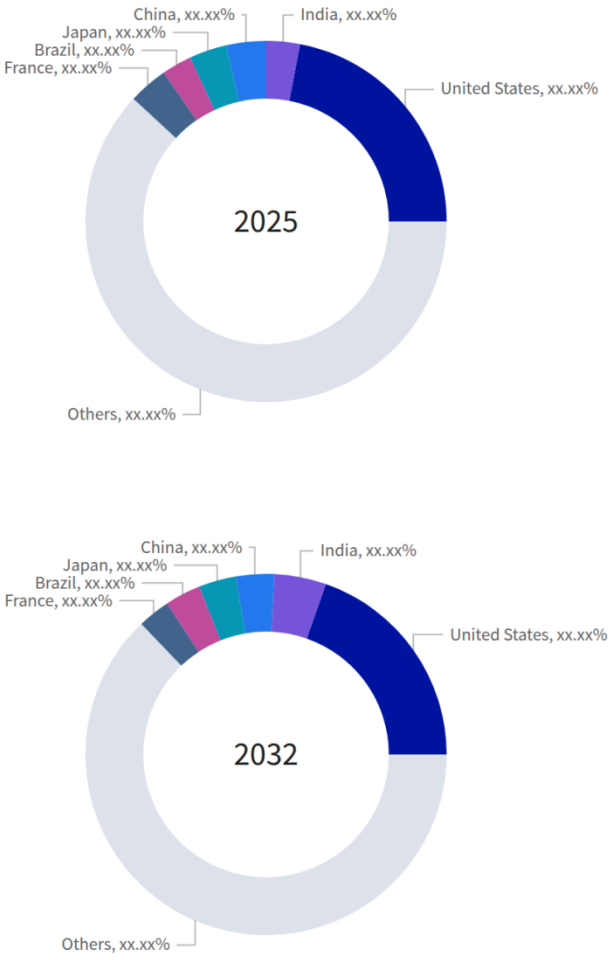


Figure 41. Global Submarine Communication Cable System Market Size, by Country, 2025 vs 2026 vs 2032

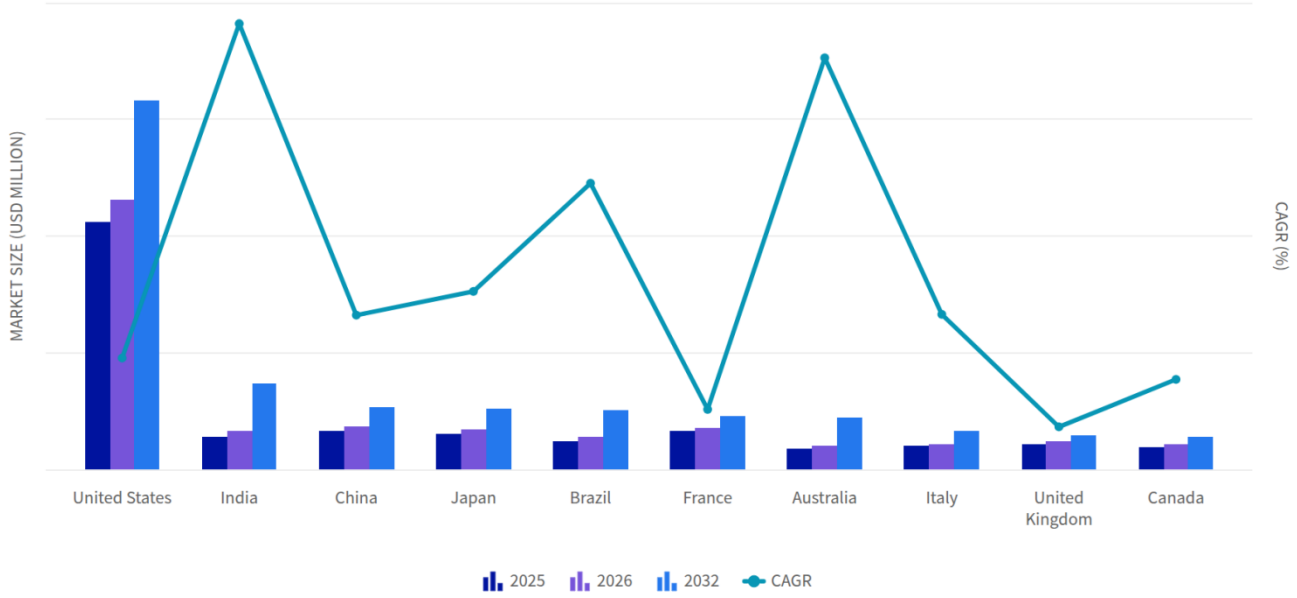


Table 595. Global Submarine Communication Cable System Market, by Country growth contribution, 2025-2032

Category	2025 value (USD Million)	2032 value (USD Million)	Added value (USD Million)	2025 share (%)	2032 share (%)	Change (pp)	Growth share (%)	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Unallocated / remaining scope	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Scope total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 596. Global Submarine Communication Cable System Market Size, by Country, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Brazil	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Canada	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
China	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
France	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Germany	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
India	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Italy	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Japan	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Mexico	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Russia	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
South Korea	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Spain	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United Kingdom	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
United States	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Connecting Islands, Creating Opportunity: Digital Transformation Expands Jobs in the Federated States of Micronesia (FSM)

   · The account identifies an Open Access Entity and regulator and describes continuing domestic-network and institutional investment needs, supporting operating and distribution commitments alongside asset procurement.
   ([worldbank.org](https://www.worldbank.org/en/results/2026/xx.xx/xx.xx/connecting-islands-creating-opportunity-digital-transformation-expands-jobs-in-the))

2. L'Etat acquiert 80% du capital d'ASN (Alcatel Submarine Networks)

   · France's finance ministry links acquisition of control over ASN with digital sovereignty and strategic industrial capability. This supports supplier-governance analysis, not an inference of preferential treatment or access to a specific landing.
   ([presse.economie.gouv.fr](https://presse.economie.gouv.fr/letat-acquiert-xx.xx-du-capital-dasn-alcatel-submarine-networks/))

3. Apply to lay cables

   · Within the MMO remit, international-cable licenses can have conditions and associated works may require separate authorization. A consolidated supply contract does not eliminate those permission boundaries.
   ([gov.uk](https://www.gov.uk/guidance/marine-licensing-cables))

4. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42

· The order distinguishes provisions with delayed effectiveness and provides conditional processing simplification, supporting section-specific applicability review rather than treating adoption as transaction clearance. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))

5. Frequently asked questions: International Submarine Cable Licences Regulations

· ISED states that terminating-license eligibility depends on control of cable administration and operation, including associated facilities. Funding participation alone does not establish that role. ([ised-isde.canada.ca](https://ised-isde.canada.ca/site/acts-regulations/en/frequently-asked-questions-international-submarine-cable-licences-regulations))

6. BELLA - Building the Europe Link to Latin America

· The program identifies Brazil and terrestrial academic-network connections involving Chile and Colombia, supporting constituency-specific access and onward-reach assessment rather than universal enterprise access. ([international-partnerships.ec.europa.eu](https://international-partnerships.ec.europa.eu/policies/programming/programmes/bella-building-europe-link-latin-america_en))

7. SEA-ME-WE-6 Subsea Cable Completes its Two Landings and Crossing Activities in Egypt

· The announcement identifies Egypt's coastal landings and terrestrial crossing role, supporting purchased-connection handoff review rather than interpreting local completion as international service availability. ([subcom.com](https://www.subcom.com/documents/2025/SEA-ME-WE-6_Subsea_Cable_Completes_Two_Landings_and_Crossing_Activities_in_Egypt-2JULY2025.pdf))

8. Apply to install a submarine cable

· The licensed-applicant requirement supports a sponsor's choice between establishing the required applicant and contracting with a licensed carrier; either route retains applicable state or territory obligations. ([acma.gov.au](https://www.acma.gov.au/apply-install-submarine-cable))

9. Submarine cabling

· EPA guidance identifies notification and reporting obligations and authorized representation despite permitted-activity treatment. This supports compliance allocation rather than a permit-free assumption. ([epa.govt.nz](https://www.epa.govt.nz/industry-areas/eez-marine-activities/undertake-an-activity-in-the-eez/submarine-cabling/))

10. International Telecommunication Access to Essential Facilities at Cable Landing Stations Regulations, 2007

· India's cable-landing regulations distinguish acquired international connectivity rights from station access, identify eligible Indian telecommunications entities, and provide fair, nondiscriminatory access under approved reference interconnect offers. These premises support eligibility and station-agreement verification. ([trai.gov.in](https://trai.gov.in/sites/default/files/2024-xx.xx/Regulation_07june07_0.pdf))

11. Nokia in 2024 - Annual Report on Form 20-F

· Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.

· Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.

· Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.

· Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.

12. Nokia Annual Report on Form 20-F 2021
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

13. TE Connectivity Ltd. 2018 Annual Report
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.

14. NEC Financial Results for the First Quarter Ended June 30, 2025
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.

15. NEC Financial Results for the Fiscal Year Ended March 31, 2026
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.

16. SubCom of Newington plans multi-million-dollar expansion
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
- Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.

17. NEC IR Day 2022 - Global Business
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
- Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

18. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
- Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
- Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
- Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.

19. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
- Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
- Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
- Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
- Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

20. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
- Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

21. ICPC Media Enquiries & Frequently Asked Questions
- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.

22. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
23. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
24. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
25. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
26. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
27. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
28. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
29. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
30. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.

31. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
32. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
33. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
34. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
35. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.

23.1. United States

Table 597. United States Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
United States	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 598. United States Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 599. United States Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 600. United States Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 601. United States Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 602. United States Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 603. United States Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 604. United States Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 605. United States Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 606. United States Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 607. United States Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 608. United States Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 609. United States Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 610. United States Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 611. United States Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 612. United States Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 613. United States Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 614. United States Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 615. United States Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 616. United States Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 617. United States Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 618. United States Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 619. United States Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
    - Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Keppel's Singapore-US subsea cable system receives US regulatory approval
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named U.S. partner and landing approval support U.S.-connected purchasing attribution.
18. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Florida and Virginia facilities support U.S. landing-owner purchasing premises.
19. Protection of Undersea Telecommunication Cables: Issues for Congress
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: FCC-advisory-derived historical landing clusters support coastal gateway premises, not observed state spending.

20. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
21. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
22. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

23. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
24. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

25. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
26. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
27. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

28. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
29. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
30. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
31. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

32. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
33. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

34. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
35. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
36. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.

37. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
38. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
39. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
40. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

41. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
42. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
43. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
44. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
45. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

46. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
47. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

48. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
49. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.2. China

Table 620. China Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
China	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 621. China Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 622. China Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 623. China Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 624. China Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 625. China Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 626. China Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 627. China Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 628. China Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 629. China Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 630. China Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 631. China Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 632. China Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 633. China Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 634. China Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 635. China Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 636. China Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 637. China Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 638. China Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 639. China Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 640. China Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 641. China Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 642. China Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. NEC Completes new Asia Pacific submarine cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Guangdong landing and named Chinese owners support mainland Chinese asset exposure.
18. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.

19. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
20. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
21. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

22. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
23. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

24. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
25. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
26. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

27. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
28. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
29. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
30. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.3. France

Table 643. France Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
France	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 644. France Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 645. France Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 646. France Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 647. France Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 648. France Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 649. France Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 650. France Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 651. France Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 652. France Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 653. France Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 654. France Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 655. France Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 656. France Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 657. France Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 658. France Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 659. France Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 660. France Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 661. France Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 662. France Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 663. France Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 664. France Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 665. France Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.4. Japan

Table 666. Japan Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Japan	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 667. Japan Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 668. Japan Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 669. Japan Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 670. Japan Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 671. Japan Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 672. Japan Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 673. Japan Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 674. Japan Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 675. Japan Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 676. Japan Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 677. Japan Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 678. Japan Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 679. Japan Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 680. Japan Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 681. Japan Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 682. Japan Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 683. Japan Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 684. Japan Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 685. Japan Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 686. Japan Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 687. Japan Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 688. Japan Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Japanese consortium and landing role supports forecast purchasing exposure, not completed operation.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.5. India

Table 689. India Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
India	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 690. India Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 691. India Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 692. India Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 693. India Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 694. India Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 695. India Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 696. India Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 697. India Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 698. India Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 699. India Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 700. India Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 701. India Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 702. India Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 703. India Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 704. India Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 705. India Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 706. India Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 707. India Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 708. India Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 709. India Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 710. India Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 711. India Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Global Gateway preliminary monitoring report
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The Europe-India corridor supports Indian interregional participation assumptions, not annual national spending.
18. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named India destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

19. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
20. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
21. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

22. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
23. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

24. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
25. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
26. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

27. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
28. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
29. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

31. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.6. Brazil

Table 712. Brazil Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Brazil	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 713. Brazil Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 714. Brazil Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 715. Brazil Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 716. Brazil Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 717. Brazil Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 718. Brazil Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 719. Brazil Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 720. Brazil Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 721. Brazil Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 722. Brazil Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 723. Brazil Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 724. Brazil Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 725. Brazil Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 726. Brazil Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 727. Brazil Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 728. Brazil Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 729. Brazil Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 730. Brazil Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 731. Brazil Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 732. Brazil Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 733. Brazil Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 734. Brazil Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Telxius' international network - Colocation Fact Sheet
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Four listed Brazilian landing locations constrain relative operating-footprint exposure.
18. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Named Brazilian destination supports a conditional interregional pipeline premise.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.

19. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
20. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
21. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.

22. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
23. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.

24. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
25. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
26. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.

27. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
28. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
29. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.

31. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.7. United Kingdom

Table 735. United Kingdom Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
United Kingdom	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 736. United Kingdom Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 737. United Kingdom Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 738. United Kingdom Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 739. United Kingdom Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 740. United Kingdom Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 741. United Kingdom Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 742. United Kingdom Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 743. United Kingdom Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 744. United Kingdom Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 745. United Kingdom Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 746. United Kingdom Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 747. United Kingdom Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 748. United Kingdom Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 749. United Kingdom Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 750. United Kingdom Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 751. United Kingdom Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 752. United Kingdom Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 753. United Kingdom Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 754. United Kingdom Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 755. United Kingdom Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 756. United Kingdom Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 757. United Kingdom Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.8. Italy

Table 758. Italy Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Italy	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 759. Italy Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 760. Italy Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 761. Italy Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 762. Italy Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 763. Italy Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 764. Italy Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 765. Italy Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 766. Italy Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 767. Italy Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 768. Italy Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 769. Italy Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 770. Italy Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 771. Italy Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 772. Italy Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 773. Italy Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 774. Italy Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 775. Italy Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 776. Italy Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 777. Italy Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 778. Italy Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 779. Italy Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 780. Italy Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Piano "Isole Minori"
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Completed twenty-one-island programme exceeding EUR xx.xx demonstrates domestic submarine purchasing context; terrestrial spending is excluded.
18. Seconda Consultazione Piano Isole Minori
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: EUR xx.xx second island programme is a funded planning context, not a verified submarine-only annual amount.
19. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.

20. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
21. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
22. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

23. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
24. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

25. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
26. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
27. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

28. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
29. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
30. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
31. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

32. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
33. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
34. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

35. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
36. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
37. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
38. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
39. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

40. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
41. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
42. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
43. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
44. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

45. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
46. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

47. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
48. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.9. Canada

Table 781. Canada Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Canada	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 782. Canada Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 783. Canada Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 784. Canada Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 785. Canada Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 786. Canada Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 787. Canada Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 788. Canada Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 789. Canada Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 790. Canada Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 791. Canada Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 792. Canada Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 793. Canada Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 794. Canada Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 795. Canada Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 796. Canada Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 797. Canada Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 798. Canada Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 799. Canada Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 800. Canada Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 801. Canada Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 802. Canada Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 803. Canada Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. The North Shore submarine cable sets sail: TELUS kicks off deployment work
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: TELUS reports a xx.xx-km domestic submarine project and greater-than-CAD-xx.xx-million joint investment, not annual recognized expenditure.
18. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.

19. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
20. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
21. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

22. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
23. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

24. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
25. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
26. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

27. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
28. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
29. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
30. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

31. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
32. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
33. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

34. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
35. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
36. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
37. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
38. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

39. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
40. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
41. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
43. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

44. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
45. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

46. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
47. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.10. Australia

Table 804. Australia Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Australia	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 805. Australia Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 806. Australia Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 807. Australia Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 808. Australia Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 809. Australia Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 810. Australia Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 811. Australia Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 812. Australia Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 813. Australia Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 814. Australia Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 815. Australia Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 816. Australia Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 817. Australia Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 818. Australia Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 819. Australia Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 820. Australia Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 821. Australia Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 822. Australia Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 823. Australia Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 824. Australia Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 825. Australia Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 826. Australia Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.11. Spain

Table 827. Spain Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Spain	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 828. Spain Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 829. Spain Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 830. Spain Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 831. Spain Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 832. Spain Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 833. Spain Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 834. Spain Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 835. Spain Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 836. Spain Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 837. Spain Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 838. Spain Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 839. Spain Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 840. Spain Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 841. Spain Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 842. Spain Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 843. Spain Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 844. Spain Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 845. Spain Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 846. Spain Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 847. Spain Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 848. Spain Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 849. Spain Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   · Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   · Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   · Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   · Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   · Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   · Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   · Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   · Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   · Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.12. Germany

Table 850. Germany Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Germany	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 851. Germany Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 852. Germany Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 853. Germany Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 854. Germany Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 855. Germany Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 856. Germany Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 857. Germany Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 858. Germany Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 859. Germany Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 860. Germany Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 861. Germany Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 862. Germany Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 863. Germany Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 864. Germany Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 865. Germany Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 866. Germany Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 867. Germany Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 868. Germany Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 869. Germany Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 870. Germany Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 871. Germany Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 872. Germany Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.13. Mexico

Table 873. Mexico Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Mexico	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 874. Mexico Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 875. Mexico Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 876. Mexico Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 877. Mexico Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 878. Mexico Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 879. Mexico Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 880. Mexico Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 881. Mexico Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 882. Mexico Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 883. Mexico Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 884. Mexico Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 885. Mexico Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 886. Mexico Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 887. Mexico Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 888. Mexico Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 889. Mexico Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 890. Mexico Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 891. Mexico Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 892. Mexico Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 893. Mexico Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 894. Mexico Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 895. Mexico Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.14. Russia

Table 896. Russia Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
Russia	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 897. Russia Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 898. Russia Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 899. Russia Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 900. Russia Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 901. Russia Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 902. Russia Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 903. Russia Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 904. Russia Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 905. Russia Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 906. Russia Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 907. Russia Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 908. Russia Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 909. Russia Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 910. Russia Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 911. Russia Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 912. Russia Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 913. Russia Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 914. Russia Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 915. Russia Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 916. Russia Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 917. Russia Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 918. Russia Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

23.15. South Korea

Table 919. South Korea Submarine Communication Cable System Market Size, 2017-2032 (USD Million)

Country	2023	2024	2025	2026	2027	2032	CAGR (%)
South Korea	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 920. South Korea Submarine Communication Cable System Market Size, by Product and Service Offering, 2017-2032 (USD Million)

Product and Service Offering	2023	2024	2025	2026	2027	2032	CAGR (%)
Equipment and Components	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landing Infrastructure Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operational Support Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Professional and Integration Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 921. South Korea Submarine Communication Cable System Market Size, by Equipment and Components, 2017-2032 (USD Million)

Equipment and Components	2023	2024	2025	2026	2027	2032	CAGR (%)
Branching Units	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Joints and Passive Accessories	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Power-Feeding Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaters and Optical Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Communications Cables	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Submarine Optical Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supervision, Monitoring, and Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Terminal Transmission Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 922. South Korea Submarine Communication Cable System Market Size, by Supervision, Monitoring, and Sensing Equipment, 2017-2032 (USD Million)

Supervision, Monitoring, and Sensing Equipment	2023	2024	2025	2026	2027	2032	CAGR (%)
Fiber Sensing Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Scientific Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Transmission Supervision and Test Equipment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 923. South Korea Submarine Communication Cable System Market Size, by Marine Services, 2017-2032 (USD Million)

Marine Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Installation and Protection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Recovery and Removal	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Marine Survey and Inspection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Vessel Charter and Marine Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 924. South Korea Submarine Communication Cable System Market Size, by Operational Support Services, 2017-2032 (USD Million)

Operational Support Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Hosting and Facility Operations	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cable Logistics and Depot Services	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Equipment Maintenance and Repair	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Monitoring and Technical Support	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 925. South Korea Submarine Communication Cable System Market Size, by Professional and Integration Services, 2017-2032 (USD Million)

Professional and Integration Services	2023	2024	2025	2026	2027	2032	CAGR (%)
Environmental Assessment and Permitting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Feasibility and System Engineering	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Independent Quality Assurance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Procurement and Contract Advisory	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Project Management and Owner Representation	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Integration and Commissioning	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 926. South Korea Submarine Communication Cable System Market Size, by Landing Infrastructure Works, 2017-2032 (USD Million)

Landing Infrastructure Works	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing Station Construction and Fitout	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Landfall Civil Works	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 927. South Korea Submarine Communication Cable System Market Size, by Software, 2017-2032 (USD Million)

Software	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Planning and Marine Operations Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Network Control and Management Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sensing Data Processing and Analytics Software	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 928. South Korea Submarine Communication Cable System Market Size, by Repeater Architecture, 2017-2032 (USD Million)

Repeater Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeatered Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 929. South Korea Submarine Communication Cable System Market Size, by Repeaterless Systems, 2017-2032 (USD Million)

Repeaterless Systems	2023	2024	2025	2026	2027	2032	CAGR (%)
Repeaterless Systems Without Submerged Amplifiers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
ROPA-Assisted Repeaterless Systems	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 930. South Korea Submarine Communication Cable System Market Size, by Terminal Interoperability, 2017-2032 (USD Million)

Terminal Interoperability	2023	2024	2025	2026	2027	2032	CAGR (%)
Closed Vendor-Specific Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Open Cable Interfaces	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 931. South Korea Submarine Communication Cable System Market Size, by Optical Fiber Core Architecture, 2017-2032 (USD Million)

Optical Fiber Core Architecture	2023	2024	2025	2026	2027	2032	CAGR (%)
Multicore Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Core Fiber	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 932. South Korea Submarine Communication Cable System Market Size, by Sensing Integration, 2017-2032 (USD Million)

Sensing Integration	2023	2024	2025	2026	2027	2032	CAGR (%)
Combined Fiber and Sensor-Package Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fiber-Based Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Integrated Sensor Packages	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
No Additional Sensing	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 933. South Korea Submarine Communication Cable System Market Size, by System Topology, 2017-2032 (USD Million)

System Topology	2023	2024	2025	2026	2027	2032	CAGR (%)
Branched Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Branched Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Festoon	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Point-to-Point	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Ring	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Star	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Trunk and Branch	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 934. South Korea Submarine Communication Cable System Market Size, by Connectivity Application, 2017-2032 (USD Million)

Connectivity Application	2023	2024	2025	2026	2027	2032	CAGR (%)
Cloud and Content Network Interconnection	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Enterprise and Public-Service Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Offshore Operational Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shared Multipurpose Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications Backbone Connectivity	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 935. South Korea Submarine Communication Cable System Market Size, by Buyer Sector, 2017-2032 (USD Million)

Buyer Sector	2023	2024	2025	2026	2027	2032	CAGR (%)
Cable Landing and Colocation Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Civil Government and Public-Service Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Cloud and Content Providers	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Defense and Security Agencies	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Industrial and Commercial Enterprises	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Research and Education Institutions	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Telecommunications and Cable Network Operators	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 936. South Korea Submarine Communication Cable System Market Size, by Procurement Model, 2017-2032 (USD Million)

Procurement Model	2023	2024	2025	2026	2027	2032	CAGR (%)
Owner-Led Disaggregated Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Supplier-Led Turnkey Delivery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 937. South Korea Submarine Communication Cable System Market Size, by Water Depth Class, 2017-2032 (USD Million)

Water Depth Class	2023	2024	2025	2026	2027	2032	CAGR (%)
Deep-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Shallow-Water Deployment	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 938. South Korea Submarine Communication Cable System Market Size, by Contracting Channel, 2017-2032 (USD Million)

Contracting Channel	2023	2024	2025	2026	2027	2032	CAGR (%)
Direct Asset-Owner Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Intermediated Contracting	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 939. South Korea Submarine Communication Cable System Market Size, by Project Lifecycle, 2017-2032 (USD Million)

Project Lifecycle	2023	2024	2025	2026	2027	2032	CAGR (%)
Decommissioning and Recovery	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Fault Repair and Restoration	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
New System Development	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Operations and Preventive Maintenance	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
System Upgrades and Life Extension	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 940. South Korea Submarine Communication Cable System Market Size, by Ownership Structure, 2017-2032 (USD Million)

Ownership Structure	2023	2024	2025	2026	2027	2032	CAGR (%)
Shared Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Sole Ownership	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Table 941. South Korea Submarine Communication Cable System Market Size, by Cable Protection Construction, 2017-2032 (USD Million)

Cable Protection Construction	2023	2024	2025	2026	2027	2032	CAGR (%)
Double-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Lightweight Protected Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Rock-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Single-Armored Cable	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Others	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx	xx.xx
Total	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**	**xx.xx**

Sources & Evidence

1. Nokia in 2024 - Annual Report on Form 20-F
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2022, supporting the historical supplier-revenue anchor.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2023.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2024.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The 2024 supplier revenue anchors the explicitly modeled xx.xx% native-currency recovery for 2025; the filing does not report 2025 ASN revenue.
2. Nokia Annual Report on Form 20-F 2021
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2017 backcast, rather than establishing an observed 2017 market total.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The disclosed 2019 ASN revenue anchors the assumption-led 2018 backcast.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2019.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2020.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Reports Submarine Networks net sales of EUR xx.xx for 2021 and attributes growth to large submarine telecommunications projects.

3. TE Connectivity Ltd. 2018 Annual Report
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2017 net sales of USD xx.xx; its percentage-of-completion accounting informs the annual revenue measurement.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Reports SubCom fiscal-2018 net sales of USD xx.xx and identifies production delays, supporting a historical delivery-cycle downturn rather than uninterrupted growth.
4. NEC Financial Results for the First Quarter Ended June 30, 2025
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: FY2024/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields a JPY xx.xx submarine-business proxy.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: FY2025/xx.xx ANS revenue of JPY xx.xx less Aerospace/Defense revenue of JPY xx.xx yields JPY xx.xx; these fiscal-year anchors support the modeled calendar-2024 bridge.
5. NEC Financial Results for the Fiscal Year Ended March 31, 2026
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Calendar-2025 submarine revenue is derived from January-March JPY xx.xx plus April-December JPY xx.xx, using the reported ANS and Aerospace/Defense quarterly-period differences.
6. SubCom of Newington plans multi-million-dollar expansion
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The January 2026 company-attributed report identifies current production of xx.xx cable kilometres annually; this is a production-to-revenue proxy, not disclosed 2025 sales.
   - Evidence informing the 2026 market-value input; displayed series and growth include calculations: The expansion announcement targets approximately xx.xx kilometres of annual production by the end of 2026, supporting a phased supply-expansion assumption.
   - Evidence informing the 2027 market-value input; displayed series and growth include calculations: The announced year-end expansion supports a possible subsequent full-year supply contribution, conditional on completion and commercial utilization.
7. NEC IR Day 2022 - Global Business
   - Evidence informing the 2017 market-value input; displayed series and growth include calculations: NEC's own historical submarine-revenue growth profile constrains the modeled early-period supplier trajectory; the selected absolute starting level remains an assumption.
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: The company presentation supplies a historical submarine-revenue CAGR of xx.xx% for FY2018-FY2021, used as a growth proxy rather than a global market estimate.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: The historical company growth profile supports the modeled submarine supplier-revenue bridge.
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: The company's xx.xx% forward revenue-growth target informs a bounded 2022 bridge; it is not treated as realized growth.

8. Federal Reserve Foreign Exchange Rates - G.5A, January 5, 2026
   - Evidence informing the 2022 market-value input; displayed series and growth include calculations: Provides the 2022 annual-average USD-per-EUR rate of xx.xx.
   - Evidence informing the 2023 market-value input; displayed series and growth include calculations: Provides 2023 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2024 market-value input; displayed series and growth include calculations: Provides 2024 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
   - Evidence informing the 2025 market-value input; displayed series and growth include calculations: Provides 2025 annual-average exchange rates of USD xx.xx per EUR and JPY xx.xx per USD.
9. Federal Reserve Foreign Exchange Rates - G.5A, January 3, 2022
   - Evidence informing the 2018 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the evidence-limited historical calculation.
   - Evidence informing the 2019 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2020 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
   - Evidence informing the 2021 market-value input; displayed series and growth include calculations: Provides the annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.
10. Federal Reserve Foreign Exchange Rates - G.5A, January 2, 2020
    - Evidence informing the 2017 market-value input; displayed series and growth include calculations: Provides the 2017 annual-average USD-per-EUR rate of xx.xx, represented as xx.xx in the historical calculation.

11. ICPC Media Enquiries & Frequently Asked Questions

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: Association reporting provides approximate network-stock and annual-fault bounds, supporting the installed-base and xx.xx-repair-event working assumptions; it does not establish spending.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Reported annual faults of approximately xx.xx-xx.xx constrain the maintenance model and argue against automatically increasing repair frequency with every kilometre added.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The distinction between expanding network stock and relatively stable annual faults supports separate upgrade, readiness, and fault-repair assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports approximately xx.xx-xx.xx annual telecommunications-cable faults and stable incident counts despite network expansion; constrains restoration activity rather than observed spending.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports xx.xx-xx.xx% human-related faults and damage concentration in shallower water; supports a shallow-skewed repair proxy, not a measured global depth-value share.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Stable fault frequency prevents automatically scaling repair spending with every added cable kilometre in the depth and lifecycle forecast.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx systems constrain the installed-asset pool used for upgrade spending; the upgrade interval and ticket remain assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate system stock constrains continuing support and maintenance activity, not its realized price.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Approximately xx.xx-xx.xx annual faults support the xx.xx-event working repair pool and qualify growth proportional to installed length.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The system-stock constraint is a common input to the modeled installed-asset topology pool, not an observed Point-to-Point mix.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The aggregate installed pool constrains buyer spending equivalents; operator counts and purchasing intensity remain modeled.

12. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The supplier announcement identifies an approximately USD xx.xx, xx.xx-kilometre SEA-US project, providing a historical full-system purchasing-price anchor rather than annual revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The approximately USD xx.xx, xx.xx-km SEA-US program constrains large-system purchasing-ticket scale; it is not one year's realized revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed consortium system budget is a commercial price anchor for annualized telecommunications-operator delivery equivalents.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The five-area system and full-project budget constrain multi-landing backbone purchasing scale without measuring the global topology mix.

13. Ciena Corporation Form 10-K for the Fiscal Year Ended November 1, 2025

- Evidence informing the 2025 market-value input; displayed series and growth include calculations: The mandatory filing reports decreased sales to submarine network operators within the EMEA revenue discussion, providing counterevidence to uniform upgrade-growth assumptions.
- Evidence informing the 2026 market-value input; displayed series and growth include calculations: Disaggregated purchasing and competitive pressure qualify the upgrade-growth assumption; total optical-network revenue is not substituted for submarine revenue.
- Evidence informing the 2032 market-value input; displayed series and growth include calculations: The filing supports purchasing-route and price-pressure premises, but does not independently verify the modeled submarine-upgrade amount.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fiscal-2025 Optical Networking revenue of USD xx.xx and software/services revenues of USD xx.xx and USD xx.xx constrain a scope-adjusted software-to-equipment proxy.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Broad implementation and maintenance/support reporting supports separating purchased integration and continuing support; company-wide figures are not submarine category revenue.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The EMEA discussion reports decreased sales to submarine operators, qualifying uninterrupted network-upgrade and software-adoption assumptions.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Ciena identifies direct and indirect channels and resellers/integrators; the filing does not disclose submarine-specific channel percentages.
- Evidence informing base-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.
- Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Decreased EMEA sales to submarine operators qualify uniform upgrade-growth assumptions; overall regional revenue is not used as submarine revenue.

14. IP e ASN assinam contrato para construção de Novo Anel CAM
    - Evidence informing the 2025 market-value input; displayed series and growth include calculations: The project owner identifies approximately EUR xx.xx of planned Atlantic CAM investment, illustrating funded regional-system purchasing without establishing annual realized spending.
    - Evidence informing the 2032 market-value input; displayed series and growth include calculations: The replacement initiative concerns an existing system operating since 1999 and a planned 2026 implementation milestone, qualifying a universal xx.xx-year replacement assumption.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner discloses EUR xx.xx planned CAM investment and a SMART component; the model assumes an annual recognition fraction, not a separately observed sensor price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The contracted xx.xx-km program expressly has ring topology, providing an asset-specific funded ring anchor.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The public commissioning mandate and multi-year budget constrain civil-government purchasing equivalents, without establishing global sector share.
15. Meta, SoftBank Corp., IPS, TM, XLSmart, and NEC to build the Candle Submarine Cable System
    - Evidence informing the 2028 market-value input; displayed series and growth include calculations: The Candle announcement supplies a planned 2028 operating milestone, supporting a conditional delivery-pipeline premise rather than realized revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2025 announcement identifies an xx.xx-km system, multiple participants, a management committee and planned 2028 operation; supports shared-project context without supplying ownership-attributable annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: A cloud-associated multi-party project is counterevidence to automatically classifying all cloud-related purchasing as sole-owned.

16. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing the 2029 market-value input; displayed series and growth include calculations: The Petal announcement identifies a planned 2029 operating milestone and named system and component roles; no operating-status or automatic architecture premium is assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2026 announcement assigns fiber provision to Sumitomo Electric and system construction to NEC; supports distinct component roles but does not verify direct asset-owner fiber invoices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies a planned xx.xx-km system funded and operated by Meta, with expected 2029 operation; constrains single-sponsor forecast plausibility without proving title to all associated assets.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Petal is an approximately xx.xx-km multicore development planned for operation in 2029, constraining conditional forecast timing rather than establishing future sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The owner, system contractor and fiber supplier have distinct named roles; component participation is not an additive complete-system sale.
17. Resolução do Conselho de Ministros n.º 104/2022, de 2 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Authorizes EUR xx.xx of separate transmission-equipment purchasing within a EUR xx.xx multi-year program; calibrates terminal scope, not annual global sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately authorizes EUR xx.xx of works supervision, supporting a purchased assurance function and fee calibration.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies construction including SMART, transmission purchasing and station rental as separate commercial obligations; supports the offering-allocation boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The SMART component establishes funded project scope but discloses no separable sensor-package value.
18. Resolução do Conselho de Ministros n.º 183/2025, de 26 de novembro
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The November 2025 amendment authorizes EUR xx.xx of mixed access and associated operating/maintenance services; it is multi-year consideration, not an annual hosting price.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Bundled station access, storage and maintenance qualify the assumption that operational categories are always invoiced separately.

19. Tonga-Fiji Submarine Cable Project: Completion Report, December 2020
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Reports USD xx.xx of civil works and USD xx.xx of cable-system investment; provides a regional fixed-site cost calibration, with incomplete government-cost reporting.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The appraisal allocates USD xx.xx to consulting; actual consulting costs are not disclosed, so the amount is a budget proxy.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents an international turnkey contract initially valued at USD xx.xx and subsequently USD xx.xx; supports consolidated procurement feasibility, not global frequency.
20. ITU-T G.972 (08/2024): Definition of terms relevant to optical fibre submarine cable systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes distinct submerged and terminal equipment elements; supports the modeled equipment partition but supplies no sales or price weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes submarine cable joints and coupling elements, supporting the passive-accessory commercial scope.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes repeaters, branching units and associated system equipment; supports category attribution, not revenue proportions.

21. Liberty Networks, Gold Data, Sparkle, and SubCom Announce Execution and Enforcement of MANTA Subsea Cable System Contract
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2025 announcement identifies a xx.xx-km Open Cable system with a consolidated design, manufacture and installation award; openness and contracting organization are distinct.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The open-system consolidated award is counterevidence to classifying a system as closed merely because one lead supplier delivers it.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Supports consolidated supplier-led delivery on an open-interface project; the announcement does not reveal annual recognized contract revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies three participating cable-system partners, supporting shared commercial interests rather than equating sponsor sector with sole ownership.
22. Crosslake Fibre - Pioneer Consulting case study
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Documents a xx.xx-km project using separately selected suppliers and more than two dozen contractors; supports owner-led disaggregation with retained coordination requirements.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Describes consolidation of project-management oversight across separately contracted responsibilities; supports purchased owner representation, not observed global fee shares.

23. ASN End to End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separates warranty support, optional services and post-warranty contract renewal; supports non-additive treatment of initial and recurring support.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists hardware repair and replacement obligations separately from optional monitoring and marine coordination, supporting the equipment-maintenance numerator boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers NOC and technical-support services as identifiable commercial functions; the brochure supplies no global annual receipts.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies out-of-service equipment recovery as a lifecycle offering, supporting category existence without establishing removal frequency or material-resale inclusion.
24. Submarine Cable Services - Atlantic Cable Maintenance & Repair Agreement
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Identifies contractual spare-storage facilities and separately listed depot rates, supporting logistics/storage attribution rather than automatic inclusion in physical repair.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Distinguishes maintenance-improvement work, fault repair and storage obligations; commercial entitlement is not interchangeable with depot access.
25. Supplemental Charter Agreement dated March 21, 2012 - International Cableship Pte Ltd and Global Marine Systems Limited, Exhibit 10.9.1
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The filed 2012 agreement records separately paid annual vessel hire and distinct owner/charterer roles; it supports commercial access classification, not current availability or 2025 market revenue.

26. Fiber sensing (DAS) - Alcatel Submarine Networks
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Offers commercial fiber-sensing equipment in submarine-system contexts; establishes scope but not global equipment sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The equipment offering includes processing software, qualifying assumptions that every analytics function is independently licensed.
27. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Markets dedicated submarine cable-planning software; supports a software entitlement category distinct from engineering labor, without establishing realized license value.
28. Google Cloud anuncia su segundo cable submarino que conectará España con Estados Unidos
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Google's July xx.xx 2025 Sol announcement separates its cable investment from Telxius landing support; supports distinguishing sponsor identity, system ownership and associated facility responsibility.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Names separately supplied landing infrastructure, supporting hosting/access purchasing rather than assuming all facility assets are owned by the cable sponsor.
29. Sumitomo Electric Launches World’s First Mass-produced Ultra-low Loss, Multi-core Fiber
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The September 2023 announcement scheduled multicore-fiber sales from October 2023 and included submarine applications; it supports commercial availability, not observed 2025 submarine sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The product description distinguishes multiple cores within a fiber from conventional single-core fiber, supporting the economic classification.

30. Unlocking global AI potential with next-generation subsea infrastructure
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Meta identifies a multi-billion-dollar, multi-year Waterworth commitment and participation in more than xx.xx subsea cables; these constrain cloud purchasing scale, not annual recognized spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced roughly xx.xx-km program identifies a cloud/content infrastructure purpose and supports a conditional larger-program purchasing premise.
31. Table of Contents - ITU-T G-series Supplement 41 (07/2024)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Lists Point-to-Point as a separate topology; classification does not disclose a purchasing share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Star, supporting the modeled category boundary.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Star, rather than merging it with Star.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Trunk and Branch.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Festoon.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Ring.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Branched Ring.
32. DigitalMarine - FiberSense
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The managed-service page lists USD xx.xx xx.xx and xx.xx per month per landing, excluding installation and based on a five-year term; these are price proxies, not realized global sales.

33. Alcatel Submarine Networks commences development of Climate Change Solution by integrating scientific sensors and sensing technologies into submarine telecom systems
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The March 2023 release describes ongoing combined SMART and other sensing development; it does not verify a named paid or operating combined-sensing asset.
34. Building the Caribbean digital economy bit by bit
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: CARCIP combined submarine connectivity, government networks and institutional services within an approximately USD xx.xx mixed program; its whole budget is not cable-only spending.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Government contract signatories establish a civil public purchasing role distinct from Digicel's contractor role.
35. University of Hawai‘i Notice of Sole Source - Cable Landing Station Access and Colocation Services
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The July xx.xx 2024 notice identifies university procurement of cable-landing access and colocation for a research-network requirement, not system construction or an included bandwidth lease.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The specific landing-access requirement supports a Research and Education Connectivity purchasing purpose without disclosing its value.
36. INPEX and Shell to partner with Nextgen Group to build subsea fibre optic cable
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Industrial sponsors proposed equal contributions to a roughly 2,000-km system, while Nextgen would build, own and operate it; this separates sponsor funding from operator identity.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The announced connection served offshore facilities over their operations, supporting an offshore communications application rather than power-cable inclusion.
37. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The February 2025 municipal announcement identifies four additional landing bores commissioned by a carrier-neutral hosting business; it does not disclose completed spending.

38. Subsea telecommunications cables: resilience and crisis preparedness
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The parliamentary report discusses reportedly state-operated secure military and intelligence cables; it establishes a constituency, not the modeled agency expenditure.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The report distinguishes military communications from ordinary commercial uses, supporting the application boundary without a monetary split.
39. Meld. St. 26 (2023-2024) - Svalbard
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The government identifies two Svalbard cables supporting businesses, public institutions, research and airport management; multiple beneficiaries do not establish multiple system sales.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Space Norway is separately identified as owner and operator, supporting purchaser-versus-user attribution.
40. Work to start on East Micronesia Cable following contract signing
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The management committee signed directly with NEC after tender within an estimated AUD xx.xx multi-year program; this establishes the contracting principal, not annual revenue.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The disclosed program budget constrains regional public new-system purchasing equivalents.
41. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer; this is an upstream intermediated role, not a separately additive owner-tier sale.
42. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Maintenance agreements separately provide continuing vessel and depot coverage, supporting an operations/readiness boundary without publishing global contract prices.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The agreements distinguish call-out repair and other separately quoted activities, supporting separation of restoration from readiness.

43. Liberty Networks Delivers Next-Gen Subsea Connectivity to Future Proof the Region
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The August 2025 MAYA-xx.xx announcement identifies terminal-equipment modernization; the wider regional investment is not a cable-upgrade-only value.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The operator separately describes removal and recovery of a retired trunk portion; announced scope is not completed annual recovery revenue.
44. Recommendation ITU-T G.978 (05/2025) - Characteristics of optical fibre submarine cables
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Recognizes Lightweight Cable without establishing its sales or route-length share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Lightweight Protected Cable and its protection distinction.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Single-Armored Cable; typical application ranges do not measure commercial mix.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Double-Armored Cable.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Separately recognizes Rock-Armored Cable.

45. Submarine Cables and the Oceans - Connecting the World, UNEP-WCMC Biodiversity Series No. 31 (2009)
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The historical noncommercial report places over xx.xx% of routes in deep ocean, constraining a broad lightweight-heavy purchasing profile, not a current LW sales share.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical deep-ocean faults below xx.xx% support a repair profile different from the new-build route profile; the armored-class split remains assumed.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Historical coastal fault concentration constrains armored repair purchasing without establishing Double-Armored Cable expenditure.
46. Experience - Xtera
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: Xtera offers repeatered and unrepeatered supply within one portfolio and identifies xx.xx historical turnkey delivery/redeployment projects; portfolio references are not annual value weights.
    - Evidence informing base-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.
    - Evidence informing forecast-year allocation inputs; displayed values and growth are calculated: The overlapping supplier portfolio qualifies any assumption that architecture uniquely determines the supplier pool.

24. Competitive Landscape

24.1. Market Share Analysis, 2025

Competitive positioning in submarine communication cable systems is package-specific. Alcatel Submarine Networks, SubCom, and NEC Corporation market integrated delivery propositions that can appeal to owners seeking a consolidated counterparty. ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪

Installed-system procurement creates a different account-access route. ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪ ▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ITU's multivendor interoperability objective supports this route, but does not confer product-specific qualification or unrestricted switching rights.

Specialists gain access through both owners and integrated suppliers. Fugro identifies SubCom as its customer for the disclosed Argentina survey work, while Tykoflex's parent identifies cable manufacturers, network owners, and operators among its customers. ▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪

▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ Neither relationship automatically grants the partner authority to sell the underlying service, approve procurement, or absorb delivery liability. Direct specialist purchasing remains an alternative where the owner can manage those interfaces.

Figure 42. Global Submarine Communication Cable System Market Share, by Key Player, 2025

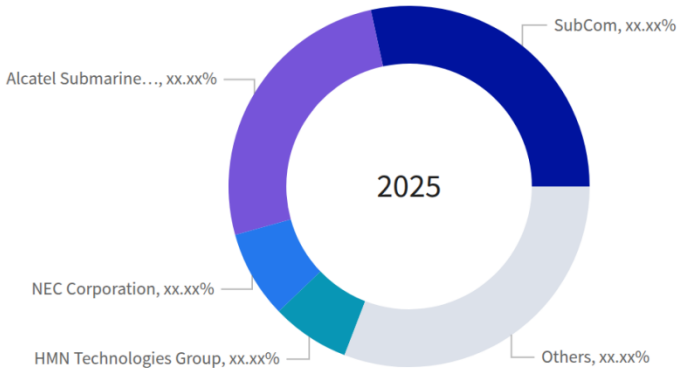


Table 942. Global Submarine Communication Cable System Market Share, by Key Player, 2025

Key Player	Share (%)
Alcatel Submarine Networks	xx.xx
AlphaStone Contracting	xx.xx
ALT Telecom	xx.xx
APTelecom LLC	xx.xx
ASEAN Cableship Pte. Ltd	xx.xx
Assured Communications	xx.xx
Baltic Offshore	xx.xx
Blue Marine Telecom	xx.xx
Cambridge Management Consulting Limited	xx.xx
Cecon Contracting	xx.xx
Ciena	xx.xx
Cirion	xx.xx
DC BLOX	xx.xx
E-Marine PJSC	xx.xx
Elettra Tlc	xx.xx
Engineering Technology Applications Ltd.	xx.xx
FEBUS Optics	xx.xx
FiberHome	xx.xx
FiberSense Pty Ltd	xx.xx
Fígoli Consulting	xx.xx
GateMarine	xx.xx

Table 942 - continued

Key Player	Share (%)
Global Marine	xx.xx
Globalinx Data Centers LLC	xx.xx
Güralp Systems Ltd	xx.xx
Hexatronic	xx.xx
HMN Technologies Group Co., Ltd.	xx.xx
Indicomm	xx.xx
International Network Systems	xx.xx
IT International Telecom Inc.	xx.xx
KDDI Cableships & Subsea Engineering Inc.	xx.xx
LS Cable & System Ltd.	xx.xx
LS Marine Solution Co., Ltd	xx.xx
Makai Ocean Engineering	xx.xx
Mitsubishi Electric	xx.xx
NahjTech	xx.xx
NEC Corporation	xx.xx
Nexans	xx.xx
NJFX	xx.xx
Nokia	xx.xx
NTT World Engineering Marine Corporation	xx.xx
Ocean Networks, Inc.	xx.xx
OMS Group	xx.xx
Orange Marine	xx.xx
PacketLight Networks, Ltd.	xx.xx
Padtec Holding S.A.	xx.xx
Pelagian Ltd	xx.xx
Pina Underwater Services Ltd	xx.xx
Pioneer Consulting	xx.xx
PT Buana Inovasi Persada	xx.xx
PT Ketrosden Triasmitra Tbk	xx.xx
S. B. Submarine Systems Co., Ltd	xx.xx
Salience Consulting	xx.xx
Seaforth Geosurveys Inc	xx.xx

Table 942 - continued

Key Player	Share (%)
Seaworks	xx.xx
Smart Cell	xx.xx
Solwake	xx.xx
SubCom	xx.xx
Telxius	xx.xx
Temasa Marine S.L.	xx.xx
Vertiv	xx.xx
VIAVI Solutions Inc.	xx.xx
WFN Strategies, LLC	xx.xx
Xtera	xx.xx
Others	xx.xx

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC markets end-to-end submarine-system solutions extending through maintenance. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. ITU-T G.977.1 (10/2020): Transverse compatible dense wavelength division multiplexing applications for repeatered optical fibre submarine cable systems
   · ITU-T G.xx.xx addresses multivendor interoperability for repeatered submarine systems; it does not establish individual equipment qualification. ([itu.int](https://www.itu.int/ITU-T/recommendations/rec.aspx?lang=en&rec=xx.xx))
3. Disaggregated System Supply
   · Pioneer offers procurement, contract formation, and implementation coordination for disaggregated submarine systems. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
4. Experience
   · Xtera describes complete-system and individual-package supply, partner-supported delivery, upgrades, and redeployment. ([xtera.com](https://xtera.com/experience/))
5. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   · Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer for the disclosed telecommunications-cable work off Argentina. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
6. Alcatel Submarine Networks invests in its industrial production facilities
   · ASN describes turnkey submarine transmission-system development, supply, deployment, and maintenance for telecommunications operators and content providers. ([asn.com](https://www.asn.com/press-release/asn-invests-in-its-industrial-production-facilities/))
7. How GeoMesh Extreme Works
   · GeoMesh Extreme combines transmission equipment, network management, and services and permits selection of required components. ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))

8. Tykoflex | Lagercrantz

· Lagercrantz identifies cable manufacturers, network owners, and network operators among Tykoflex's customers and marine transmission cables among its applications. ([lagercrantz.com](https://www.lagercrantz.com/operations/electrify/company-development-within-electrify/tykoflex/))

9. APTelecom and FiberSense Advance Subsea Cable Monitoring Capabilities Through Strategic Collaboration

· APTelecom and FiberSense describe operator engagement, stakeholder access, and international commercial development through their collaboration. ([aptelecom.com](https://aptelecom.com/aptelecom-and-fibersense-advance-subsea-cable-monitoring-capabilities-through-strategic-collaboration/))

10. SubCom Overview Flyer 2025

· SubCom describes integrated submarine-network engineering, manufacturing, installation, and lifecycle capabilities. ([subcom.com](https://www.subcom.com/documents/SubCom-OverviewFlyer-2025-web.pdf))

11. Nokia powers Surge's subsea network, boosting affordable broadband for millions in Indonesia

· Nokia reported deployment of its subsea optical solution for Surge's Jakarta-Singapore connection on July xx.xx 2025. ([nokia.com](https://www.nokia.com/newsroom/nokia-powers-surges-subsea-network-boosting-affordable-broadband-for-millions-in-indonesia/))

· Evidence informing base-year company-share estimates: The July xx.xx 2025 announcement reports deployment of Nokia's subsea optical solution for Surge's Jakarta-Singapore connection, establishing a dated terminal-equipment purchasing reference. Price and revenue recognition remain modeled.

12. Blue Marine Telecom - ZMAX Group: Financial Statements for the Years Ended December 31, 2025 and 2024

· Evidence informing base-year company-share estimates: The company's published financial statement reports BRL xx.xx of net revenue for the year ended December xx.xx 2025. This supplies a company reporting-envelope check, not a submarine-revenue fraction.

· Evidence informing base-year company-share estimates: Joint-operation balances are disclosed without a project revenue allocation; the modeled numerator therefore does not add the consortium's entire contract or infer sales from balance-sheet stocks.

13. Panorama sobre cabos submarinos - Blue Marine Telecom, IX Fórum Fortaleza, June 4-5, 2025

· Evidence informing base-year company-share estimates: The company-project slide identifies Petrobras as owner and Blue Marine Telecom as constructor of the xx.xx-km Rio de Janeiro-Vitória optical cable, with a 2025 installation milestone.

· Evidence informing base-year company-share estimates: The separate xx.xx-km Rio de Janeiro-Santos reference is dated 2023 and is not added as another base-year delivery.

· Evidence informing base-year company-share estimates: Only company-specific project material supports this model; commercial market-research statistics and unrelated global estimates elsewhere in the presentation are excluded.

14. Federal Reserve Board - Foreign Exchange Rates, G.5A, January 5, 2026
    - Evidence informing base-year company-share estimates: The official 2025 annual-average rate is BRL xx.xx per USD, used to convert the observed company turnover into a nominal-USD ceiling check.
    - Evidence informing base-year company-share estimates: Currency conversion does not establish the modeled project price, realization fraction or final share.
    - Evidence informing base-year company-share estimates: Provides the official 2025 annual-average USD-per-EUR rate of xx.xx used in the ASN numerator conversion.
    - Evidence informing base-year company-share estimates: Provides the official 2025 annual-average JPY-per-USD rate of xx.xx.
    - Evidence informing base-year company-share estimates: Provides the official 2025 annual-average RMB-per-USD rate of xx.xx.
    - Evidence informing base-year company-share estimates: Provides the official 2025 annual-average USD-per-EUR rate of xx.xx used for the contemporaneous turnover proxy.
    - Evidence informing base-year company-share estimates: Provides the official 2025 annual-average NOK-per-USD rate of xx.xx.
    - Evidence informing base-year company-share estimates: Provides the 2025 annual-average KRW xx.xx/USD conversion used in the common calibration.
    - Evidence informing base-year company-share estimates: Supports currency conversion of the common maintenance-book calibration, not the attribution factor.
    - Evidence informing base-year company-share estimates: Supports KRW conversion of the Japanese comparable-book proxy; it does not supply the assumed PHP conversion.
    - Evidence informing base-year company-share estimates: Supports conversion of reported maintenance revenue into nominal 2025 USD.
    - Evidence informing base-year company-share estimates: Supports currency valuation of the comparable maintenance-book input.
    - Evidence informing base-year company-share estimates: Provides USD xx.xx/EUR for converting the explicitly assumed professional-fee numerator.
    - Evidence informing base-year company-share estimates: The official 2025 annual-average exchange rate is BRL xx.xx per USD. It converts the USD xx.xx working numerator to BRL xx.xx for comparison with the disclosed company revenue ceiling.
    - Evidence informing base-year company-share estimates: The official annual exchange-rate release reports the 2025 average of CHF xx.xx per USD, used to convert the modeled CHF fee numerator into the frozen nominal-USD measurement basis. ([federalreserve.gov](https://www.federalreserve.gov/releases/g5a/xx.xx/))
    - Evidence informing base-year company-share estimates: The official 2025 annual-average exchange rate of THB xx.xx per USD converts the modeled USD xx.xx hosting numerator to THB xx.xx for comparison with the reported mixed network-income ceiling.
    - Evidence informing base-year company-share estimates: Provides the 2025 annual-average exchange rate of USD xx.xx per EUR used for the modeled support numerator.
    - Evidence informing base-year company-share estimates: Provides the 2025 annual-average exchange rate of USD xx.xx per EUR used for the modeled sensing-package numerator.
    - Evidence informing base-year company-share estimates: The official annual table reports USD xx.xx per Australian dollar for 2025, supporting the currency conversion of the rebased Australian comparable. ([federalreserve.gov](https://www.federalreserve.gov/releases/g5a/xx.xx/))

15. SEA-US: Global Consortium to Build Cable System Connecting Indonesia, the Philippines, and the United States
    - Evidence informing base-year company-share estimates: The August xx.xx 2014 SEA-US announcement identifies approximately USD xx.xx for a roughly xx.xx-km complete submarine system.
    - Evidence informing base-year company-share estimates: This historical purchasing-price scale supports the inherited commercial calibration only; it is not a Blue Marine quotation or observed 2025 revenue. The regional intensity and recognition adjustments remain assumptions.
    - Evidence informing base-year company-share estimates: The supplier announcement identifies approximately USD xx.xx for a roughly xx.xx-km SEA-US system, an earlier full-system price-scale anchor for the explicit time-and-mix bridge, not a current SubCom quotation.
16. Nokia in 2024 - Annual Report on Form 20-F
    - Evidence informing base-year company-share estimates: Mandatory reporting discloses Submarine Networks/ASN net sales of EUR xx.xx in 2024 and EUR xx.xx in 2023, anchoring the modeled 2025 recovery bridge rather than observing 2025 revenue.
17. SubCom of Newington plans multi-million-dollar expansion
    - Evidence informing base-year company-share estimates: The January xx.xx 2026 company-attributed disclosure reports current annual cable production of xx.xx km, supporting a near-period commercial production proxy; it does not disclose 2025 recognized sales.
18. NEC Financial Results for the Fiscal Year Ended March 31, 2026
    - Evidence informing base-year company-share estimates: Reference ANS and Aerospace/Defense breakdowns support the calendar-2025 residual: JPY (xx.xx–xx.xx)+(xx.xx–xx.xx) billion, or JPY xx.xx. The figures are not a separately audited submarine segment.
19. 江苏亨通光电股份有限公司关于分拆所属子公司江苏亨通华海科技股份有限公司至科创板上市的预案
    - Evidence informing base-year company-share estimates: Reports preliminary 2025 consolidated revenue of RMB xx.xx ten-thousand units for Jiangsu Hengtong Huahai, identifies marine communications as its core business following the smart-business disposal, and establishes operating-subsidiary consolidation relevant to avoiding duplicated HMN activity.
20. HMN Technologies Group Co., Ltd - cippe2025
    - Evidence informing base-year company-share estimates: The bilingual company exhibitor record associates HMN Technologies Group Co., Ltd with 江苏亨通华海科技股份有限公司; it supports the identity bridge only, not sales or market share.
21. Prysmian a capo di una joint venture con Fincantieri per acquisire Xtera
    - Evidence informing base-year company-share estimates: The December xx.xx 2025 acquisition announcement describes approximately EUR xx.xx of Xtera turnover without an explicit audited year, supporting a contemporaneous annual proxy.
    - Evidence informing base-year company-share estimates: The transaction was an agreement subject to approvals with expected 2026 completion, supporting separate Xtera attribution in the 2025 model.
22. Loading is underway at the Nexans facility as TAM-1 deployment begins
    - Evidence informing base-year company-share estimates: The March 2025 TAM-xx.xx disclosure identifies Xtera equipment and Nexans manufacturing for an approximately xx.xx-km system, supporting partner-fulfilled participation without observing annual revenue.
    - Evidence informing base-year company-share estimates: Identifies Nexans cable manufacturing within the shared Xtera project, supporting exclusion of embedded prime-supply activity from an independently additive Nexans purchaser-tier numerator.
23. Nexans Norway AS - Annual Report 2025
    - Evidence informing base-year company-share estimates: Reports NOK xx.xx of 2025 Submarine Telecom & Special Cables revenue and near-finalization of more than xx.xx km of TAM-xx.xx cable manufacturing.
    - Evidence informing base-year company-share estimates: The mixed sub-line contains telecom, offshore specialty and internal activity; the modeled communications and purchaser-tier fractions are not disclosed percentages.

24. ASN End-to-End Services & Solutions for Submarine Cable Systems
    - Evidence informing base-year company-share estimates: Distinguishes warranty support, optional services and renewed maintenance, supporting the exclusion of unsupported additional service revenue from the consolidated ASN proxy; it does not quantify service attachment.
25. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
    - Evidence informing base-year company-share estimates: Reports EMCS completion and handover on May xx.xx 2026 and describes integrated group fulfillment, supporting delivery-status and embedded-group attribution checks rather than a new 2025 revenue amount.
26. Meta, NEC, and Sumitomo Electric to Collaborate on Petal, the World's First Petabit Transoceanic Submarine Cable System
    - Evidence informing base-year company-share estimates: The September xx.xx 2026 Petal announcement separates system-construction and fiber-supply roles and schedules operation for 2029; it supports excluding a presumed completed-project amount from 2025.
27. 拥抱“一带一路”发展机遇，烽火通信持续为菲律宾注入发展新动能
    - Evidence informing base-year company-share estimates: The April xx.xx 2024 company announcement describes a Philippine submarine program approaching xx.xx km and regional EPC offerings. It anchors project scale and economic role, not observed 2025 revenue or the assumed recognition fraction.
28. 烽火助力菲律宾群岛海底通信网络建设
    - Evidence informing base-year company-share estimates: Reports completion on May xx.xx 2022 of five Philippine PLDT DSCPA2 routes totaling xx.xx km. This is a historical regional delivery-batch calibration, not an observed 2025 shipment.
29. Hexatronic Group - Annual and Sustainability Report 2025
    - Evidence informing base-year company-share estimates: Reports SEK xx.xx of broad Fiber Solutions sales and a major fourth-quarter submarine cable delivery.
    - Evidence informing base-year company-share estimates: Identifies unrepeatered submarine systems within Fiber Solutions. It does not disclose the modeled shipment lengths, submarine revenue, prices or owner-level purchasing fraction.
30. Ciena Corporation - Form 10-K for the Fiscal Year Ended November 1, 2025
    - Evidence informing base-year company-share estimates: Reports fiscal-2025 Optical Networking revenue of USD xx.xx, used only as a broad reporting-scope ceiling.
    - Evidence informing base-year company-share estimates: Reports decreased EMEA sales to submarine network operators and describes direct and indirect channels, qualifying automatic growth and purchaser-tier attribution assumptions.
31. Submarine networking - Ciena
    - Evidence informing base-year company-share estimates: Establishes the submarine transmission hardware, software and associated-service offering used to define the modeled equipment/software numerator; the portfolio does not measure annual transactions or revenue.
32. Nokia Corporation Financial Report for Q4 2025 and full year 2025
    - Evidence informing base-year company-share estimates: Provides the 2025 optical-business reporting boundary, including acquired Infinera, and the broad EUR xx.xx Optical Networks revenue envelope. This is not a submarine-revenue fraction or a share denominator.
33. Nokia selected for Medusa to bring new connectivity across Europe and North Africa
    - Evidence informing base-year company-share estimates: The project owner's July xx.xx 2025 announcement identifies Nokia's selection for the Medusa system, supporting an independently contracted terminal route. It does not establish completed delivery, contract price or the assumed xx.xx% recognition.
34. Mitsubishi Electric Completes Upgrade of SEA-ME-WE 4 Network
    - Evidence informing base-year company-share estimates: Reports terminal-equipment supply to all sixteen SEA-ME-WE xx.xx landing stations in the upgrade completed February xx.xx 2015. This anchors a historical installed cohort, not observed 2025 support or refresh revenue.

35. Optical submarine cable systems - Mitsubishi Electric
- Evidence informing base-year company-share estimates: Maintains a product-specific commercial inquiry category for optical submarine cable systems. This supports marketed scope only, not the modeled retention rate, paid customer count or annual sales.

36. Keppel Infrastructure Trust - Circular dated 22 October 2025
- Evidence informing base-year company-share estimates: Provides HY2025 revenue and prior operating mix for the explicitly modeled annualization and purchaser-tier adjustments.
- Evidence informing base-year company-share estimates: Provides the financial activity comparator used in the assumption-led marine-service calibration, not Orange Marine revenue.
- Evidence informing base-year company-share estimates: Provides the financial activity comparator used in the assumption-led marine-service calibration, not Elettra revenue.
- Evidence informing base-year company-share estimates: Provides the financial activity comparator used in the assumption-led marine-service calibration, not OMS revenue.
- Evidence informing base-year company-share estimates: Provides the financial activity comparator used in the assumption-led marine-service calibration, not IT revenue.

37. Keppel Infrastructure Trust - 1H 2025 Presentation Slides
- Evidence informing base-year company-share estimates: The operating-asset presentation associates maintenance with four vessels and installation with off-hire activity; it supports the calibration structure, not realized annual revenue per vessel.

38. Subsea Telecommunications Fibre Optic Cable Maintenance - Global Marine
- Evidence informing base-year company-share estimates: Identifies approximately xx.xx maintenance authorities, zone-based purchasing and coverage exclusions; supports the lifecycle economic role and its limitations.

39. Orange Marine modernise sa flotte de navires câbliers pour sécuriser les infrastructures numériques en Europe, en Afrique, et au Moyen-Orient
- Evidence informing base-year company-share estimates: Provides the dated group fleet-role description and subsidiary relationship used for the modeled operating allocation excluding Elettra.
- Evidence informing base-year company-share estimates: Identifies Elettra within the group fleet, requiring separation from Orange Marine's modeled operating numerator.

40. Risorse di Elettra - Elettra TLC
- Evidence informing base-year company-share estimates: Identifies Teliri, Antonio Meucci and Urbano Monti and their installation, maintenance and survey roles; supports the separate operating-resource proxy.

41. Vessels - OMS Group
- Evidence informing base-year company-share estimates: Lists five cable installation/repair vessels and associated support assets; provides the near-period commercial-stock proxy, not observed 2025 utilization or sales.

42. OMS Group - Cable Vigilance completes LINCE submarine cable repair
- Evidence informing base-year company-share estimates: OMS's own account identifies a July 2025 LINCE repair and Telefónica participation, supporting dated maintenance activity without supplying an annual revenue amount.

43. Southern Cross, ASN, and OMS Group Sign SX Tasman Express SX-TX Subsea Cable Supply Contract
- Evidence informing base-year company-share estimates: The June 2025 joint agreement identifies OMS's installation role and a 2028 milestone; supports contracting structure, not booking the award as 2025 sales.

44. Profile - IT International Telecom
- Evidence informing base-year company-share estimates: The commercial catalog identifies IT Intrepid, IT Infinity and IT Integrity and multiple service markets; supports the near-period platform proxy and scope adjustment.

45. Maintenance - IT International Telecom
- Evidence informing base-year company-share estimates: Sentinel maintenance distinguishes annual fees, storage and separately paid repairs, supporting a differentiated lifecycle realization model rather than identical bundled pricing.

46. TAM-1 Submarine Cable System - Trans Americas Fiber
    - Evidence informing base-year company-share estimates: The owner chronology identifies IT marine operations in 2025; it establishes dated participation but does not disclose IT consideration or remove turnkey-prime overlap.
47. LS Marine Solution Co., Ltd. - 2025 Business Report, filed March 16, 2026
    - Evidence informing base-year company-share estimates: The separately reported 2025 maintenance flow supplies the common monetary calibration, not observed SBSS sales.
    - Evidence informing base-year company-share estimates: The maintenance-flow calibration supports the comparable international maintenance-book model, not observed KDDI sales.
    - Evidence informing base-year company-share estimates: The maintenance-flow calibration supports the modeled Japanese external-owner book, not observed NTT sales.
    - Evidence informing base-year company-share estimates: Reports KRW xx.xx of 2025 maintenance revenue and distinguishes construction, land-cable activity and parent ownership.
    - Evidence informing base-year company-share estimates: The maintenance-flow calibration supplies monetary scale for the assumed billable responsibility equivalents.
    - Evidence informing base-year company-share estimates: The maintenance-flow calibration supplies monetary scale for the two assumed regional service books.
48. Global Connectivity Matters - SBSS Telecommunications
    - Evidence informing base-year company-share estimates: Identifies continuing Yokohama Zone maintenance participation and a dedicated Shanghai cable depot, supporting the maintenance-and-storage proxy boundary.
49. Submarine Cable Maintenance - KDDI Cableships & Subsea Engineering Inc.
    - Evidence informing base-year company-share estimates: Distinguishes the international Yokohama Zone and domestic JIH maintenance responsibilities, supporting separate owner and captive attribution.
50. Corporate Profile and Organization - KDDI Cableships & Subsea Engineering Inc.
    - Evidence informing base-year company-share estimates: Identifies KDDI's xx.xx% ownership and the operating company's activities, supporting the captive-transfer exclusion.
51. Maintenance - NTT World Engineering Marine Corporation
    - Evidence informing base-year company-share estimates: Identifies NTT and other operator maintenance customers, PLDT domestic-cable maintenance, and station-service participation; it does not disclose annual revenue.
52. PLDT Inc. 2024 Annual Financial Statements - Note 24, Related Party Transactions
    - Evidence informing base-year company-share estimates: Reports PHP xx.xx of 2024 purchaser repair-and-maintenance expense for NTT World Engineering Marine, separately from the payable balance; this supports the explicit 2025 flow bridge.
53. Inauguration Ceremony of ASEAN Challenger - ASEAN Cableship
    - Evidence informing base-year company-share estimates: Announces ASEAN Challenger joining three other cableships serving SEAIOCMA, supporting the maintenance-responsibility model without establishing realized annual sales.
54. Submarine Cable Installation, Maintenance & Repair and Cable Storage - E-Marine
    - Evidence informing base-year company-share estimates: Identifies communications maintenance, distinct power-cable activity, two cable depots and Gulf/western Indian Ocean service coverage, supporting the modeled service-book and depot boundaries.
55. E-Marine Commercial News and Maintenance Announcements
    - Evidence informing base-year company-share estimates: Describes maintenance agreements and supplier-associated installation projects as different commercial undertakings; the announcements are not treated as observed 2025 revenue.
56. Temasa Marine SL - Company, Collaborators and Project References
    - Evidence informing base-year company-share estimates: Describes approximately xx.xx engineers and specialists, owner-side project references and collaborators, and distinguishes the current consultancy from the historical Tyco-acquired business.

57. Core Team - Pioneer Consulting
    - Evidence informing base-year company-share estimates: The inspected current roster contains xx.xx named positions and identifies an associate network. It constrains the professional-capacity proxy, not observed 2025 headcount or revenue.
58. Press Releases Archives - Pioneer Consulting
    - Evidence informing base-year company-share estimates: Dated 2025 announcements identify Bruce Pudney's June xx.xx start and Alison Verkade's July appointment, informing the explicit annual-equivalent staffing adjustment.
59. Pioneer Consulting Awarded Supervision Contract for Trans-Caspian Submarine Cable System
    - Evidence informing base-year company-share estimates: The April xx.xx 2025 announcement identifies an owner-awarded supervision contract for the Trans-Caspian system, supporting the independently purchased professional-service route without disclosing its fee.
60. Estudio de factibilidad técnica, legal, económica, financiera, ambiental, social, de gobernanza y geopolítica del Proyecto Cable Antártico
    - Evidence informing base-year company-share estimates: The public procurement page specifies a USD xx.xx tax-inclusive study budget. This is a multi-period professional-package scale check, not Pioneer's revenue or an added numerator.
61. Consorcio de empresas Salience y Pioneer desarrollarán estudio de prefactibilidad de Cable Antártico
    - Evidence informing base-year company-share estimates: The January xx.xx 2025 government announcement identifies Salience and Pioneer as the awarded consortium and a xx.xx-month study period, establishing participation while leaving company fee allocation unresolved.
62. MakaiPlan - Makai Ocean Engineering
    - Evidence informing base-year company-share estimates: The official page identifies planning software, owner-planning services and cumulative feedback from hundreds of customers. It constrains commercial category and reach, not the modeled 2025 active-owner cohort.
63. MakaiLay Level 1 Training Course - 15 June 2015
    - Evidence informing base-year company-share estimates: The June 2015 brochure quotes GBP xx.xx excluding VAT for a five-day training package including accommodation. It is only a historical commercial-ticket check, not a current license price or Makai-retained receipt.
64. WFN Strategies Mid-Year Report 2025
    - Evidence informing base-year company-share estimates: Reports xx.xx+ experts, xx.xx active projects and xx.xx+ representative sea-days at mid-year 2025. These are commercial activity anchors, not revenue or communication-only purchaser-tier quantities.
65. The Cayman Islands Strengthens International Connectivity for Global Business and Communication - Media Advisory, 22 November 2023
    - Evidence informing base-year company-share estimates: The November xx.xx 2023 advisory identifies WFN's collaboration in a Cambridge-led contract with an estimated KYD xx.xx ceiling. It qualifies direct-owner attribution and is not booked as 2025 WFN revenue.
    - Evidence informing base-year company-share estimates: The November 2023 owner announcement supplies a KYD xx.xx advisory-package ceiling as a comparable commercial scale check; it does not establish ETA's daily rate or 2025 receipts.
    - Evidence informing base-year company-share estimates: The separately awarded cable-owner advisory package provides a monetary scale comparison for professional-service assumptions, not Pelagian's observed annual revenue.
    - Evidence informing base-year company-share estimates: Identifies Cambridge MC as lead participant with WFN Strategies and SBM International and states a contract ceiling of up to KYD xx.xx; supports the modeled prime-package anchor and non-additive partner attribution.

66. Seaforth Geosurveys - Mainport Geo Coasting Trade Application, July 14, 2025
    - Evidence informing base-year company-share estimates: Identifies Seaforth's July xx.xx 2025 KBC survey contract and the approximately xx.xx-km commercial assignment.
    - Evidence informing base-year company-share estimates: Supports the contracting-period anchor while documenting an approximately xx.xx-day planning estimate that conflicts with the shorter owner-project duration; it does not establish recognized revenue.
67. NIRB File 25UN049 - Kivalliq-Baffin Connector Marine Survey
    - Evidence informing base-year company-share estimates: The KBC owner-project record identifies a xx.xx-km survey and a planned xx.xx-xx.xx-day duration in the 2025 or 2026 open-water season.
    - Evidence informing base-year company-share estimates: Provides the quantity and duration premises for the explicitly modeled xx.xx-day case, not a contract-price or 2025-completion observation.
68. Seaforth Geosurveys and Arctic Research Foundation Complete Complex Marine Survey in Ungava Bay to Support Tamaani Fibre-Optic Connectivity for Inuit Communities
    - Evidence informing base-year company-share estimates: Reports completion of a 2025 telecommunications survey for the Kativik Regional Government with the Arctic Research Foundation.
    - Evidence informing base-year company-share estimates: Reports five Arctic contracts on four vessels overall, without establishing that all five were telecommunications assignments or disclosing prices.
69. $120 Million Undersea Cable Project will Expand High-Speed Internet Statewide
    - Evidence informing base-year company-share estimates: Identifies the USD xx.xx HIFL public-private project, six Hawaiian island landing locations and Ocean Networks' development role.
    - Evidence informing base-year company-share estimates: Constrains project scale and the landing-workstream model; the budget is not treated as annual Ocean Networks revenue.
70. State of Hawai‘i - Capital Projects Fund 2025 Performance Report
    - Evidence informing base-year company-share estimates: Reports HIFL design, environmental-study, site-survey and supplier-contract progress during the reporting period.
    - Evidence informing base-year company-share estimates: Reports permitting delays, supporting preconstruction-services attribution rather than recognition of the whole project as 2025 company sales.
71. State of Hawai‘i - Capital Projects Fund 2026 Performance Report
    - Evidence informing base-year company-share estimates: Retains incomplete HIFL permitting and delivery milestones and records a requested performance extension through June xx.xx 2027.
    - Evidence informing base-year company-share estimates: Provides subsequent-period counterevidence to full-project 2025 recognition; it does not independently disclose 2025 fees.
72. Toptana Technologies - About Us
    - Evidence informing base-year company-share estimates: The customer identifies Assured as its chosen owner representative and service provider for design, construction and operations.
    - Evidence informing base-year company-share estimates: Supports one identifiable purchaser-facing mandate and separation of its station/fronthaul role from terrestrial backhaul; hours and realized fees remain modeled.
73. Assured Communications - Bermuda
    - Evidence informing base-year company-share estimates: Identifies a contracted Bermuda subsea regulatory/advisory mandate and describes continuing work.
    - Evidence informing base-year company-share estimates: Supports the smaller advisory-account premise, not observed calendar-2025 hours or consideration.
74. DC BLOX Set to Expand Myrtle Beach Cable Landing Station
    - Evidence informing base-year company-share estimates: The October xx.xx 2025 disclosure identifies Myrtle Beach as an existing facility opened in 2023 and names Firmina, Anjana and Nuvem, constraining the modeled cable-hosting population.
    - Evidence informing base-year company-share estimates: The announced additional five-cable capacity is prospective capacity, not realized annual revenue; neither the USD xx.xx fee nor the xx.xx% reservation allowance is reported by this source.

75. Myrtle Beach South Carolina Cable Landing Station - DC BLOX
    - Evidence informing base-year company-share estimates: The Myrtle Beach portfolio identifies cable-operator colocation, staffed security and smart-hands support, supporting the included hosting-package scope.
    - Evidence informing base-year company-share estimates: The page separately markets terrestrial dark fiber and reports committed/planned capacity; those broader activities and capacity figures are not converted into the modeled numerator.
76. Palm Coast Cable Landing Station - DC BLOX
    - Evidence informing base-year company-share estimates: Palm Coast's initial phase is stated as expected to operate in Q1 2027, supporting exclusion of operating-hosting equivalents for that site from the 2025 model.
    - Evidence informing base-year company-share estimates: Planned six-cable capacity does not establish 2025 realized hosting revenue or a zero for the entire company.
77. Today NJFX installs new N+1 MW block of Power Ready for Service
    - Evidence informing base-year company-share estimates: The May xx.xx 2025 disclosure identifies access to five subsea cable systems and more than xx.xx network operators, providing the company-specific cable-relationship proxy.
    - Evidence informing base-year company-share estimates: The disclosure distinguishes operational infrastructure from broader AI growth; power capacity and the broader operator population are not used as automatic revenue weights.
    - Evidence informing base-year company-share estimates: The source does not disclose submarine-specific revenue, package prices or full-year paid-contract equivalents.
78. Colocation - NJFX
    - Evidence informing base-year company-share estimates: The official portfolio establishes purchased cable-station colocation, power, cooling, security and meet-me-room access as commercial offerings.
    - Evidence informing base-year company-share estimates: Its statement that recurring cross-connect fees are not charged supports omission of a separate recurring cross-connect revenue allowance.
    - Evidence informing base-year company-share estimates: The portfolio supports package classification, not the assumed USD xx.xx annual price or five full-year paid equivalents.
79. Padtec irá fornecer solução para rede submarina da Global Fiber que conecta Belém a Fortaleza
    - Evidence informing base-year company-share estimates: The June xx.xx 2024 announcement identifies Global Fiber's selection of Padtec and Satelital for the Belém-Fortaleza submarine undertaking and an expected late-2025 operating milestone. It supports the named-project model and prospective period bridge, not observed 2025 revenue or the assumed contract allocation.
80. Padtec - Webcast de Resultados 4T25, 26 de fevereiro de 2026
    - Evidence informing base-year company-share estimates: The 2025 results presentation reports rounded domestic-equipment, international-equipment and services/software/platform revenues of BRL xx.xx, BRL xx.xx and BRL xx.xx. Their approximately BRL xx.xx total supplies a corporate ceiling check, not a submarine-revenue allocation.
81. Padtec concludes acquisition process of LEV Brasil
    - Evidence informing base-year company-share estimates: The July xx.xx 2026 announcement confirms acquisition of xx.xx% of LEV Brasil and its incorporation into Padtec Marine Networks. The dated event supports excluding acquisition-related activity from the 2025 numerator and qualifies retrospective use of the new business milestone.
82. Experience | International Network Systems
    - Evidence informing base-year company-share estimates: Reports two named industrial landing-development references and several regional marine/civil assignments, including a turnkey undertaking; these support the modeled package scope but do not establish 2025 sales, prices or annual package counts.

83. Terrestrial Services | International Network Systems
    - Evidence informing base-year company-share estimates: Markets partner-supported modular cable stations and separately identifies dry-plant maintenance, supporting the construction-plus-limited-support package classification used in the assumption-led numerator.
    - Evidence informing base-year company-share estimates: Does not publish the modeled USD xx.xx station/site ticket or USD xx.xx support ticket; those are explicitly inherited and scope-adjusted commercial assumptions.
84. Marine Services | International Network Systems
    - Evidence informing base-year company-share estimates: Describes an owner-facing turnkey and customized submarine-system service route, supporting the modeled selection of independent purchaser packages rather than additive embedded subcontractor turnover.
    - Evidence informing base-year company-share estimates: The owner-facing offering does not independently verify the contracting principal or consideration of any 2025 modeled package.
85. Maintenance - Baltic Offshore
    - Evidence informing base-year company-share estimates: Identifies several telecom interconnectors and continuing repair/readiness contracts, constraining the recurring commercial pool used in the model.
    - Evidence informing base-year company-share estimates: Does not disclose the modeled five contract equivalents, their 2025 fees or realized repair revenue.
86. Baltic Offshore at Almedalen: Strengthening Sweden’s Readiness in the Baltic Sea Region
    - Evidence informing base-year company-share estimates: The July 2025 statement corroborates continuing installation, maintenance and emergency-repair participation during the base year.
    - Evidence informing base-year company-share estimates: Supports the period-continuity premise, not a quantitative revenue observation.
87. Skagenfiber / Fibre cable installation - Cecon Contracting
    - Evidence informing base-year company-share estimates: Reports a 2020 lump-sum installation contract for xx.xx km of fibre-optic cable, with Skagenfiber identified as client.
    - Evidence informing base-year company-share estimates: Supplies one historical activity observation for the explicitly assumed 2025 annual-activity bridge.
88. Scylla - Fibre Optic Cable Installation - Cecon Contracting
    - Evidence informing base-year company-share estimates: Reports a 2021 lump-sum installation contract for xx.xx km of fibre-optic cable, with EU Networks identified as client.
    - Evidence informing base-year company-share estimates: Supports historical operator-facing quantity and contracting-role calibration, not observed 2025 sales.
89. Havsil - Fibre Optic Cable Installation - Cecon Contracting
    - Evidence informing base-year company-share estimates: Reports a 2021 lump-sum installation contract for xx.xx km of fibre-optic cable, with Bulk Infrastructure identified as client.
    - Evidence informing base-year company-share estimates: Completes the three-project, xx.xx-km historical benchmark used by the working model.
90. Key markets - Cecon Contracting
    - Evidence informing base-year company-share estimates: Identifies telecommunications as a substantial portion of recent work while also identifying excluded oil-and-gas, renewable and power activities.
    - Evidence informing base-year company-share estimates: Supports the communications business-role and continuity premise, but does not quantify annual communications turnover.
91. 2014 Winners of The Queen's Awards for Enterprise - Press Book
    - Evidence informing base-year company-share estimates: Reports xx.xx ETA employees in 2014 and a mixed submarine-cable engineering and consultancy business; used only as a historical staffing-scale constraint, not a current headcount or sales observation.
92. Telecoms Subsea Cable Market - ETA Ltd
    - Evidence informing base-year company-share estimates: Documents Vodafone-appointed purchaser representation and separate supplier or installation-contractor appointments, supporting the distinction between independently purchased advisory fees and embedded subcontracting.

93. Overview | Management & Consulting Team Bios - Pelagian
· Evidence informing base-year company-share estimates: Identifies company-specific network-construction and consultancy roles, including specialists joining in 2017 and 2019; constrains the professional-role model without establishing 2025 billing or three observed assignments.

94. Annual Depth of Burial Survey - Pelagian
· Evidence informing base-year company-share estimates: Describes an annual European telecom-cable survey relationship lasting ten years, providing a near-period recurring-service anchor; no contract value or annual recognized revenue is disclosed.

95. Making Waves: How Subsea Cables are Improving Global Connectivity - Cambridge Management Consulting
· Evidence informing base-year company-share estimates: The company-specific operations section describes then-current C-LION2 advisory activity and continuing Celtic Norse development, supporting two explicitly assumption-led 2025 fee bridges; unrelated market statistics and earlier personal project histories are excluded.

96. The Government's Approach to Sustainable Economic Development - Cayman Islands Office of the Auditor General
· Evidence informing base-year company-share estimates: Confirms the advisory award and reports no project allocation in the 2024-2025 budget statements, qualifying annual realization rather than supporting automatic recognition of the whole contract ceiling.

97. Fígoli Consulting | LinkedIn
· Evidence informing base-year company-share estimates: The company's self-published profile reports one employee, self-owned status and Geneva headquarters, supporting the single-principal commercial-scale proxy; it does not disclose 2025 revenue.
([linkedin.com](https://www.linkedin.com/company/figoli-consulting/))

98. Services | Fígoli Consulting
· Evidence informing base-year company-share estimates: The official service page identifies permitting, infrastructure agreements, cable-owner responsibilities and damage-claim coordination, supporting professional-service scope and purchaser-role attribution rather than observed fee volume.
([subcables.com](https://www.subcables.com/services))

99. Directive de l'Ordre des avocats neuchâtelois en matière d'honoraires
· Evidence informing base-year company-share estimates: The professional-fee directive describes historical Swiss court-recognized hourly fee examples, including CHF xx.xx and CHF xx.xx-xx.xx constraining the assumed CHF xx.xx rate; it is not a 2025 Fígoli tariff observation.
([oan.ch](https://www.oan.ch/fileadmin/documents/Directive_en_matiere_d_honoraires_19.xx.xx.pdf))

100. F/O Deniz Altı Kablo Arıza Çalışması Hk. - Circular No. 293, April 11, 2025, including the April 10 port-authority letter
· Evidence informing base-year company-share estimates: The April xx.xx 2025 Istanbul Regional Port Authority letter names GateMarine as applicant for an existing fiber-optic cable maintenance and repair undertaking between Ambarlı and Büyükada.
· Evidence informing base-year company-share estimates: The requested April xx.xx-May xx.xx work window spans xx.xx calendar days and names three vessels. These are activity and period inputs to the model, not observed billable days, completion or revenue.

101. Fleet | Cable Laying & Survey Vessels | GateMarine
· Evidence informing base-year company-share estimates: The company fleet page lists STORM KNIGHT, GARGANEY and GATEMARINE xx.xx supporting attribution of the vessels named in the 2025 port-authority record to GateMarine.
· Evidence informing base-year company-share estimates: The fleet listing does not establish base-year utilization, realized service prices or additional annual revenue; the estimate does not multiply the entire fleet by a generic utilization rate.

102. References - Pina Underwater Services Ltd
- Evidence informing base-year company-share estimates: The official reference table identifies two TurkNet submarine fiber-optic preventive-maintenance assignments in January and August 2025 and one TurkNet shore-end repair assignment in November 2025.
- Evidence informing base-year company-share estimates: These three dated, owner-named packages constrain the modeled activity count. Their prices are assumed, not disclosed.
- Evidence informing base-year company-share estimates: Two separate 2025 Fiber Connect installation references are not added because their purchaser-tier attribution remains unverified.

103. Smart Cell - About Us and Coral Bridge Submarine Cable Landing
- Evidence informing base-year company-share estimates: Smart Cell identifies one Coral Bridge submarine-cable landing undertaking in Aqaba involving infrastructure preparation and cable-pulling management.
- Evidence informing base-year company-share estimates: The disclosed package supports a one-site commercial activity model, but does not disclose its price, annual revenue or immediate paying counterparty.
- Evidence informing base-year company-share estimates: Broader mobile-network, general terrestrial and data-center activity is excluded from the modeled numerator.

104. The Express Subsea Cable “Coral Bridge” Laying Completed, Connecting Egypt and Jordan - August 21, 2025
- Evidence informing base-year company-share estimates: The joint owner announcement dated August xx.xx 2025 reports completion of Coral Bridge cable laying and landings in Taba and Aqaba.
- Evidence informing base-year company-share estimates: The owner record identifies a xx.xx-kilometre connection and provides the period and project-scope bridge for the modeled Smart Cell Aqaba package. It does not establish Smart Cell's fee or contracting principal.

105. Ultra Long Haul Optical Transport for a Leading Service Provider in ASEAN Region
- Evidence informing base-year company-share estimates: The 2025-labelled customer case identifies a delivered xx.xx-km Singapore-Indonesia optical network with five main sites and mixed terrestrial/submarine coverage.
- Evidence informing base-year company-share estimates: Supports the regional terminal-package scope and site-count anchor; it does not disclose contract value, global annual sales or acceptance timing.
- Evidence informing base-year company-share estimates: Two submarine-attributable packages, one annual purchasing equivalent and USD xx.xx per package are explicit modeling assumptions, not figures reported by this source.

106. Projects | Telecom, ELV & Cabling - AlphaStone UAE
- Evidence informing base-year company-share estimates: Identifies AlphaStone's STC submarine-cable landfall assignment in Bahrain and the narrow dedicated landward connection scope.
- Evidence informing base-year company-share estimates: Supports modeling a minor landing-work package rather than allocating whole-system, general electrical or terrestrial-network revenue.
- Evidence informing base-year company-share estimates: The page does not disclose the assignment date, award value or immediate legal buyer; the 2025 association and separate-owner-purchase treatment are assumptions.

107. stc successfully lands the first Bahraini submarine cable system; 2Africa Pearls in Bahrain
- Evidence informing base-year company-share estimates: STC's dated announcement records the Bahrain 2Africa Pearls landing on June xx.xx 2025, providing a period-specific counterparty event for the inferred AlphaStone assignment.
- Evidence informing base-year company-share estimates: The reported USD xx.xx investment is system-level consideration and is not treated as contractor revenue or annual spending.
- Evidence informing base-year company-share estimates: The announcement does not name AlphaStone or verify its contract value; it supports timing context only.

108. NahjTech -Nahj Technology LLC - Company Profile
   - Evidence informing base-year company-share estimates: The company-published profile declares a xx.xx-xx.xx employee band and more than xx.xx historical subsea-system engagements; the staffing-band endpoint anchors a conservative service-revenue model, not observed 2025 sales.
   - Evidence informing base-year company-share estimates: The profile identifies operator, cable-consortium and government delivery roles, supporting consideration of separately purchased owner services. It does not establish the modeled direct-purchaser fraction.
109. LS Cable & System and LS Marine Solution jointly participate in Korea-Japan Submarine Communication Network Building Project led by MS and Amazon
   - Evidence informing base-year company-share estimates: The June xx.xx 2025 company announcement identifies a xx.xx-km JAKO project planned to begin in 2025 and finish in 2027, providing the project quantity and period anchors for the working model.
   - Evidence informing base-year company-share estimates: Identifies LS Cable & System as the EPC lead and LS Marine Solution as the installation participant, supporting single-count purchaser-tier attribution. It does not disclose contract value or recognized 2025 revenue.
110. アルテリア、日本と韓国を結ぶ国際光海底ケーブルプロジェクト「JAKO」に参画
   - Evidence informing base-year company-share estimates: The June xx.xx 2025 Arteria announcement independently identifies LS Cable & System's design, procurement and construction responsibility for JAKO.
   - Evidence informing base-year company-share estimates: Reports planned operation in the third quarter of 2027 and Arteria's Japanese landing-party role, supporting a phased annual-recognition assumption and separation of supplier delivery from downstream connectivity revenue. It does not quantify annual supplier receipts.
111. PT Ketrosden Triasmitra Tbk and Subsidiaries - Interim Consolidated Financial Statements, September 30, 2025
   - Evidence informing base-year company-share estimates: The September 2025 interim filing reports comparative nine-month 2024 maintenance/management revenue of IDR xx.xx used as a recurring-revenue proxy rather than observed 2025 submarine sales.
   - Evidence informing base-year company-share estimates: Its customer-contract disclosures establish external maintenance arrangements; they do not verify the modeled submarine billing share.
112. Company Overview - Triasmitra
   - Evidence informing base-year company-share estimates: Identifies Jayabaya at xx.xx km, Rising-xx.xx at xx.xx km, UJB at xx.xx km, and Damai at xx.xx km, supporting the explicitly modeled marine-versus-terrestrial route-family calibration.
   - Evidence informing base-year company-share estimates: Separates group network commercialization from maintenance and vessel-operation roles; reported project lengths are not maintenance revenue.
113. Managed Services - Triasmitra
   - Evidence informing base-year company-share estimates: Markets submarine preventive and corrective services for both company and customer systems, supporting an external service channel while requiring exclusion of captive group transfers.
114. Company Experience - PT Buana Inovasi Persada
   - Evidence informing base-year company-share estimates: Lists dated 2025 XL/XLSMART repair assignments, Indosat dismantling, and Mora closure and handling orders, providing the company-specific activity inputs for five modeled economic packages.
   - Evidence informing base-year company-share estimates: Also identifies supplier-to-prime customers, allowing their embedded orders to be excluded; no realized prices are published.
115. Solwake - Home
   - Evidence informing base-year company-share estimates: Reports xx.xx cable fault repairs during 2024-2025 and identifies the Prima Nusantara X and Navalink Polaris portfolio, anchoring the two-year activity envelope.
   - Evidence informing base-year company-share estimates: This company-reported aggregate is not an observed 2025 revenue amount or an audited annual repair census.

116. Solwake - Projects
    - Evidence informing base-year company-share estimates: The unique showcase contains eight 2025 and two 2024 project entries; two 2025 entries are labeled repeatered and six non-repeatered.
    - Evidence informing base-year company-share estimates: These dates and commercial categories support the disclosed temporal and ticket-mix proxies, not proof of sample representativeness or recognized sales.
117. Solwake - News
    - Evidence informing base-year company-share estimates: The corporate archive includes 2025 Prima Navalink activity and an April xx.xx 2026 Solwake introduction, supporting a conditional historical-business bridge.
    - Evidence informing base-year company-share estimates: The archive does not establish legal succession or the exact contracting affiliate.
118. Seaworks - Transpower Subsea Inspection
    - Evidence informing base-year company-share estimates: Documents yearly inspections of Transpower's electricity and telecommunications cables within a xx.xx-kilometre Cook Strait corridor, supporting the modeled recurring owner-facing telecommunications activity.
    - Evidence informing base-year company-share estimates: Supports program recurrence and mixed power/telecommunications scope; it does not disclose 2025 consideration, the assumed one-route equivalent, or the modeled fixed and per-kilometre fees.
119. Seaworks - Installation, monitoring and maintenance of submarine cable systems
    - Evidence informing base-year company-share estimates: Identifies participation in four New Zealand submarine telecommunications systems and distinguishes installation, monitoring, maintenance, and other marine activities.
    - Evidence informing base-year company-share estimates: Supports the scope check: historical installation references are not converted into annual owner contracts, and power-cable and unrelated marine revenue are excluded.
120. ALT Telecom Public Company Limited - Financial Statements for the Year Ended 31 December 2025
    - Evidence informing base-year company-share estimates: The audited 2025 segment disclosure reports THB xx.xx of mixed fibre-optic network service income, used only as a commercial ceiling check; it does not disclose hosting-only revenue or the modeled share.
121. Minutes of the Annual General Meeting of Shareholders for the Year 2025
    - Evidence informing base-year company-share estimates: The April 2025 shareholder-meeting record describes existing submarine-station service customers, advance payments and service periods of xx.xx-xx.xx years, supporting annualization rather than counting full prepayments as current provision.
122. International Gateway Co., Ltd. expresses appreciation to the Office of NBTC for honoring us with a visit and showing interest in the Talaylink project
    - Evidence informing base-year company-share estimates: ALT's company-specific disclosure identifies International Gateway as its subsidiary and the first Satun landing station as operational since 2022, supporting the existing-facility premise, not an observed customer count.
123. ALT Telecom Public Company Limited - Disclosure of Information Concerning the Acquisition of Assets, August 8, 2025
    - Evidence informing base-year company-share estimates: The August xx.xx 2025 mandatory disclosure identifies THB xx.xx of proposed subsea-extension investment and first-half-2028 readiness; this future investment is excluded from the modeled 2025 supplier numerator.
124. DigitalMarine - FiberSense
    - Evidence informing base-year company-share estimates: Publishes USD xx.xx USD xx.xx and USD xx.xx monthly DigitalMarine prices per landing on five-year terms, excluding installation; the middle tier anchors an explicitly discounted near-period pricing proxy.
125. SUBCO armours the SMAP cable with FiberSense
    - Evidence informing base-year company-share estimates: The January xx.xx 2025 owner announcement identifies a six-landing Australian partnership footprint and existing OAC monitoring alongside forthcoming SMAP participation; partial-year paid realization remains modeled.

126. FiberSense and Southern Cross Cable Networks
    - Evidence informing base-year company-share estimates: Reports DigitalMarine implementation on Southern Cross's New Zealand shore-end infrastructure and describes its three-cable network; the modeled three monitored endpoints are not directly disclosed.
127. FiberSense - DigitalMarine September 2025 commercial update
    - Evidence informing base-year company-share estimates: FiberSense's own 2025 update reports deployment across Australia, the UK and USA and a September installation promotion; it supports geographic participation but does not establish paid customer counts or annual revenue.
128. Hexa Capital Partners with APTelecom for MYUS Submarine Cable Project
    - Evidence informing base-year company-share estimates: The February xx.xx 2025 company announcement establishes MYUS consulting and project-management participation, anchoring a modeled March-December service period; it publishes no fee.
129. USTDA, Super Sistem Partner on Subsea Cable for Indonesia
    - Evidence informing base-year company-share estimates: USTDA's July xx.xx 2023 announcement identifies APTelecom as Super Sistem's selected feasibility consultant and describes seven BTI landing stations; it establishes an owner-side role, not a 2025 revenue amount or new award.
130. Digital Transformation Through Subsea Connectivity for Indonesia
    - Evidence informing base-year company-share estimates: The BTI case page identifies Super Sistem and advisory/delivery roles but combines a January xx.xx 2025 completion label with prospective outcomes; this unresolved timing conflict limits the assumed half-year revenue bridge.
131. Our Story - Indicomm
    - Evidence informing base-year company-share estimates: Reports participation in more than xx.xx submarine systems over more than twenty years, providing the historical activity anchor.
    - Evidence informing base-year company-share estimates: Identifies equipment-vendor work and client representation, supporting exclusion of embedded vendor-side assignments from the modeled purchaser-tier numerator.
132. Gara #25 - Procedura aperta per l'appalto di un sistema di smart cable, completo dei necessari accessori
    - Evidence informing base-year company-share estimates: Official procurement record identifies the March xx.xx 2020 EUR xx.xx SMART-cable award to Güralp.
    - Evidence informing base-year company-share estimates: Supports the historic installed-asset valuation used in the support model, not observed 2025 revenue.
133. ESPLORAZIONI TECNOLOGICHE | Installato uno SMART cable per osservare la Terra dagli abissi del Mar Ionio
    - Evidence informing base-year company-share estimates: The public purchaser confirms December 2023 deployment and identifies Güralp's system-construction role.
    - Evidence informing base-year company-share estimates: Establishes the installed commercial reference; the historic installation is not counted again as 2025 delivery.
134. Signing of MOU for provision of SMART subsea cable solutions, between Güralp Systems Ltd and SubConnect, part of the Global Marine Group
    - Evidence informing base-year company-share estimates: The December xx.xx 2024 announcement describes continuing network-operation, maintenance and data-related services.
    - Evidence informing base-year company-share estimates: Supports the commercial support route but does not establish a paid 2025 renewal.
135. DIVJUR N° 21/2025 - Adjudicación del Estudio de Factibilidad del Proyecto Cable Antártico
    - Evidence informing base-year company-share estimates: Awards USD xx.xx including taxes, to the Salience-Pioneer consortium on January xx.xx 2025.
    - Evidence informing base-year company-share estimates: Provides the contract-value anchor while requiring separate annual recognition and company attribution.

136. Resolución Exenta N° 1.659/2024 - Bases de Licitación del Estudio del Cable Antártico
    - Evidence informing base-year company-share estimates: Sets three study-payment milestones of xx.xx%, xx.xx% and xx.xx%, with payment dependent on executed and approved deliverables.
    - Evidence informing base-year company-share estimates: Supports the milestone-based annual bridge; it does not confirm 2025 acceptance or Salience's consortium percentage.
137. Salience-Pioneer Consortium Presents “Perspectives and Opportunities for Antarctic Cable” at GORE Magallanes Event
    - Evidence informing base-year company-share estimates: The June 2025 update reports ongoing feasibility-study work and a March 2026 completion roadmap.
    - Evidence informing base-year company-share estimates: Corroborates activity during the base year without measuring earned consideration.
138. Tender for the Supply and Maintenance of Optical Fibre Earth Sensing Suite to DIAS GeoFib, in Two Lots - Contract Award Notice
    - Evidence informing base-year company-share estimates: Names FEBUS as the standard-range lot winner on July xx.xx 2024 and reports EUR xx.xx across two supplier lots.
    - Evidence informing base-year company-share estimates: Provides a procurement-scale calibration only; FEBUS's individual price, submarine allocation and 2025 recognition are undisclosed.
139. Earthquake and Tsunami Detection Using Fibre Optic Cables - Instituto Geográfico Nacional
    - Evidence informing base-year company-share estimates: Identifies FEBUS equipment in a September 2020 submarine-fiber application involving ISLALINK.
    - Evidence informing base-year company-share estimates: Supports relevant commercial application history, not a 2025 purchase or annual revenue amount.
140. Environmental Monitoring | FOGrid Solution | FEBUS Optics
    - Evidence informing base-year company-share estimates: Markets environmental monitoring in the context of submarine telecommunications cables.
    - Evidence informing base-year company-share estimates: Supports the included sensing-package scope; annual customer purchases and support receipts remain modeled.
141. VIAVI Solutions Inc. - Form 10-K for the Fiscal Year Ended June 28, 2025
    - Evidence informing base-year company-share estimates: Reports fiscal-2025 NSE revenue of USD xx.xx, including USD xx.xx products and USD xx.xx services.
    - Evidence informing base-year company-share estimates: Provides scope and ceiling checks, not an allocation of corporate revenue to submarine communications.
142. ONMSi Remote Fiber Test System (RFTS) | VIAVI Solutions Inc.
    - Evidence informing base-year company-share estimates: Reports more than xx.xx monitored optical networks across applications and identifies submarine cable networks as an application.
    - Evidence informing base-year company-share estimates: Provides the near-period footprint proxy; the xx.xx% submarine cohort is an explicit assumption.
143. Submarine Cable Networks | VIAVI Solutions Inc.
    - Evidence informing base-year company-share estimates: Identifies portable instrumentation, remote monitoring and associated software for submarine networks.
    - Evidence informing base-year company-share estimates: Retains bounded monitoring applications rather than assuming equivalent visibility across complete repeatered routes.
144. VIAVI ONMSi RFTS Promotion - Exclusive Trade-In Offers for MTA and Associated Integrators
    - Evidence informing base-year company-share estimates: The VIAVI-authored promotion describes annual software-update and technical-assistance renewal after the initial year.
    - Evidence informing base-year company-share estimates: Its June xx.xx 2023 expiry prevents use as a current 2025 price observation; it supports the renewal structure only.

145. City of Virginia Beach Development Authority - February 11, 2025 Minutes

· Evidence informing base-year company-share estimates: The January 2025 cash-flow statement reports a USD xx.xx monthly conduit-management disbursement to Globalinx, supporting the payment anchor; twelve-month annualization remains modeled. ([yes-vb.files.svdcdn.com](https://yes-vb.files.svdcdn.com/production/About-Us/VBDA/MeetingMaterial/2025/VBDA-Minutes-February-2025.pdf?dm=xx.xx))

146. City of Virginia Beach Development Authority - September 9, 2025 Presentations

· Evidence informing base-year company-share estimates: The August 2025 cash-flow statement separately reports the same USD xx.xx monthly Globalinx conduit-management payment, supporting near-year continuity rather than establishing a complete annual total. ([yes-vb.files.svdcdn.com](https://yes-vb.files.svdcdn.com/production/About-Us/VBDA/MeetingMaterial/2025/VBDA-PowerPoints-September-2025.pdf?dm=xx.xx))

147. City of Virginia Beach Development Authority - December 2025 Resolutions

· Evidence informing base-year company-share estimates: The December xx.xx 2025 resolution describes two diverse Corporate Landing duct banks constructed to facilitate subsea-cable access, supporting the modeled landward-support scope; lease payments and construction credits are not treated as Globalinx sales. ([yes-vb.files.svdcdn.com](https://yes-vb.files.svdcdn.com/production/About-Us/VBDA/MeetingMaterial/2025/VBDA-Presentations-December-2025.pdf?dm=xx.xx))

148. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project

· Evidence informing base-year company-share estimates: The February xx.xx 2025 municipal announcement identifies three existing cable connections and four planned additional bores, constraining the commercial footprint but not paid hosting occupancy or revenue. ([virginiabeach.gov](https://virginiabeach.gov/connect/news/globalinx-data-center-to-break-ground-on-subsea-cable-fiber-optic-project))

149. Globalinx Data Centers LLC Has Completed Diverse Fiber Cable Network Tie In Into MAREA and BRUSA CLS

· Evidence informing base-year company-share estimates: The company announcement distinguishes Globalinx's nearby campus and completed fiber tie-in from the Telxius landing station, supporting non-duplicated interface attribution rather than three assumed independent landing stations. ([globalinxdatacenters.com](https://www.globalinxdatacenters.com/wp-content/uploads/2019/xx.xx/Globalinx-PTC-Press-Release-January.pdf))

150. Telxius Colocation Fact Sheet

· Evidence informing base-year company-share estimates: The facility table explicitly identifies fourteen landing stations separately from points of presence, supporting the strict footprint proxy. It is not a dated 2025 occupancy or revenue census. ([telxius.com](https://telxius.com/pdf/en/Colocation-Fact-sheet.pdf))

151. Telxius Has Expanded Comprehensive Landing Services to Accelerate Subsea Cable Deployments

· Evidence informing base-year company-share estimates: The October xx.xx 2025 announcement reports xx.xx CLSs and data centers together and identifies separately marketed landing responsibilities; the mixed facility count is not used as submarine-only sales. ([telxius.com](https://telxius.com/en/telxius-has-expanded-comprehensive-landing-services-to-accelerate-subsea-cable-deployments/))

152. Strengthening Network Resilience with the Sol Transatlantic Cable

· Evidence informing base-year company-share estimates: Google's July xx.xx 2025 owner announcement identifies Telxius for the planned Sol landing infrastructure in Santander. It supports the customer/project bridge, not the assumed price, annual recognition or operational acceptance. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))

153. EllaLink Expands its Footprint at Telxius' Fortaleza Data Center to Meet Growing Traffic Demands in Brazil

· Evidence informing base-year company-share estimates: The November xx.xx 2025 announcement states that EllaLink cable infrastructure is hosted at Telxius' Fortaleza data center, providing an existing external submarine-owner hosting reference without disclosing consideration. ([telxius.com](https://telxius.com/en/ellalink-expands-its-footprint-at-telxius-fortaleza-data-center-to-meet-growing-traffic-demands-in-brazil/))

154. Cirion introduce Servicios de Landing Party en América Latina
    · Evidence informing base-year company-share estimates: The May 2025 launch announcement identifies fifteen available carrier-neutral CLSs and submarine-specific housing, infrastructure and support offerings, supporting the available-site and partial-year premises; customer uptake remains assumed. ([press.ciriontechnologies.com](https://press.ciriontechnologies.com/2025/xx.xx/xx.xx/servicios-landing-party-america-latina/))
155. Cirion Technologies - 2022 Sustainability Report
    · Evidence informing base-year company-share estimates: The 2022 sustainability report identifies eighteen landing stations, fourteen owned, providing historical operating-boundary context rather than external 2025 sales or an additional site count to add to the commercial offer. ([lp.ciriontechnologies.com](https://lp.ciriontechnologies.com/hubfs/Other%20Files/Downloadable%20Assets/Reports/xx.xx-Reporte-Cirion-Ingles-VFL-xx.xx-xx.xx-xx.xx.pdf))
156. Telconet Latam Selects Vertiv to Build New Landing Station in Barranquilla, Colombia, for CSN-1 Submarine Cable
    · Evidence informing base-year company-share estimates: The May xx.xx 2025 owner announcement identifies Vertiv's separate design/build award for one CSN-xx.xx station in Colombia and its mixed cable-landing/edge scope, supporting the project and exclusion adjustments, not recognized revenue. ([carnivalsubmarinenetworks.com](https://www.carnivalsubmarinenetworks.com/index.php/en-us/news/xx.xx-vertiv-eng))
157. Regional Development Australia Sunshine Coast - Quarterly Report to Region, October-December 2018
    · Evidence informing base-year company-share estimates: The regional development authority reports the AUD xx.xx 2018 Vertiv landing-station award, supporting a historical comparable-price anchor; escalation, project-size adjustment and 2025 realization are modeled. ([rdasunshinecoast.org.au](https://www.rdasunshinecoast.org.au/wp-content/uploads/2019/xx.xx/Quarterly-Report-to-Region-Q4-Oct-Dec-2018.pdf))
158. Vertiv - MainOne CEO Interview
    · Evidence informing base-year company-share estimates: The MainOne case identifies separate twenty-rack cable-landing and ten-rack data-center modules, supporting the commercial space-mix proxy used to exclude unrelated computing scope; it does not disclose the Colombian cost allocation. ([vertiv.com](https://www.vertiv.com/49e9b3/globalassets/documents/community/vertiv_mainone_interview-mea-en_307999_0.pdf))

24.2. Market Concentration Analysis, 2025

Competitive control resides in several delivery interfaces rather than in a single undifferentiated supplier population. ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ Buyers seeking genuinely separate alternatives should examine common ownership, shared inputs, qualification authority, and the entity accepting delivery liability.

Integrated delivery also depends on partnerships rather than ownership alone. ▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪ These arrangements can consolidate access to complementary capabilities, but several corporate names do not necessarily represent independent fulfillment resources or separately substitutable delivery commitments.

[illegible] Ltd, KDDI Cableships & Subsea Engineering Inc., E-Marine PJSC, and Baltic Offshore appear as installation-provider leads in ICPC's industry links; their availability for a particular maintenance obligation still requires agreement-specific qualification. S. B. Submarine Systems Co., Ltd reports a Global Marine shareholder relationship in its corporate history, making current ownership and contracting independence relevant checks rather than assumptions.

[illegible] A buyer gains leverage from an actionable alternative landing arrangement, not from a provider's network footprint or carrier-neutral description alone. Owner-controlled construction remains a counterforce where the buyer can secure the necessary landward infrastructure and operating capability.

Sources & Evidence

1. Subsea Telecommunications Fibre Optic Cable Maintenance
   · Global Marine describes maintenance-zone governance, additional-work approval, and shallow-water and beach-joint exclusions unless contracted. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
2. Cable Landing Stations - DC BLOX
   · DC BLOX markets hosted carrier-neutral landing facilities; the offering does not establish an individual customer's reserved access or rights. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
3. Managed Services - Triasmitra
   · Triasmitra expressly markets monitoring, maintenance, repair, and vessel coordination for its own and customer submarine systems in Indonesia. ([triasmitra.com](https://triasmitra.com/services/managed-services))
4. Subsea Landing Solutions - Telxius
   · Telxius explicitly markets station planning, operation, maintenance, facility use, and upgrades, supporting site-specific access and operating comparisons. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))
5. Company Profile | About OCC
   · OCC identifies NEC Corporation and Sumitomo Electric Industries, Ltd. as shareholders and submarine optical cable manufacturing and marketing among its activities. ([occjp.com](https://www.occjp.com/en/company/profile.html))
6. Southern Cross, ASN, and OMS Group Sign SX Tasman Express SX-TX Subsea Cable Supply Contract
   · Southern Cross, ASN, and OMS Group are signatories to the SX-TX supply contract; marine installation is assigned to OMS in partnership with ASN. ([asn.com](https://www.asn.com/wp-content/uploads/2025/xx.xx/Press-Release-SX-TX.pdf))

7. Orange hosts the Medusa submarine cable at its infrastructure in Marseille for its first landing
   · Orange identifies Orange Marine's installation role and Elettra Tlc's coordination role for Medusa's Marseille landing and identifies their Orange-group relationship. ([newsroom.orange.com](https://newsroom.orange.com/orange-hosts-the-medusa-submarine-cable-at-its-infrastructure-in-marseille-for-its-first-landing/?lang=eng))
8. Submarine Cable Industry Links
   · ICPC's industry links identify installation-provider leads including ASEAN Cableship, KCS, E-Marine, and Baltic Offshore; listings do not establish a particular customer's maintenance entitlement. ([iscpc.org](https://iscpc.org/information/submarine-cable-industry-links/))
9. SBSS - History
   · SBSS's corporate history reports Global Marine Systems becoming a shareholder in 2005; the historical disclosure does not by itself settle current contracting independence. ([sbss.com](https://www.sbss.com/en/site/history))
10. Cirion introduces Landing Party Services in Latin America
    · Cirion's landing-party offering combines landward infrastructure, backhaul, and support in Latin America, creating a contract-specific facility alternative. ([press.ciriontechnologies.com](https://press.ciriontechnologies.com/en/2025/xx.xx/xx.xx/landing-party-services-latin-america/))

24.3. Recent Developments & Impact Analysis, 2025

[redacted] Padtec's August xx.xx 2026 results presentation separately reports the entry into operation of Padtec Marine Networks following LEV Brasil's capitalization. That reported business milestone strengthens the basis for evaluating a Latin American integration alternative, while leaving individual delivery and warranty commitments to qualification.

[redacted] The former establishes project-specific commercial roles; the latter establishes an expansion commitment. Neither should be treated as proof of immediately available additional supply, universal component interchangeability, or an operating reference for every buyer.

Delivery and upgrade disclosures support different purchasing decisions. [redacted] An upgrade may address an existing route's requirements without meeting a requirement for a physically independent connection.

Marine and landing developments expose the importance of joint responsibility and facility status. The June 2025 SX Tasman Express contract assigns marine installation to OMS Group in partnership with ASN and identifies a 2028 completion milestone. ■■■■■■■■ ■■■ ■■ ■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■ ■■■■ ■■■■■■■■■■ ■■■■ ■■■■■ ■■ ■■■■■■■■ ■■ ■■■■■■■■ ■■ ■■■ ■■■■■ ■■■■■■■■ ■■ ■■■■■ ■■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■ ■■■■■ ■■■ ■■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■ ■■■■ ■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■

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Sources & Evidence

1. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   · The September xx.xx 2026 Petal announcement assigns funding and operation to Meta, system construction to NEC, and Multicore Fiber supply to Sumitomo Electric, with operation scheduled for 2029. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))
2. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · Ciena's September xx.xx 2026 announcement describes planned equipment and network-control deployment on Angola Cables' existing MONET and SACS systems, not completed new-route delivery. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
3. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
   · NEC reported EMCS construction completion and handover to receiving operators on May xx.xx 2026, establishing a delivered public-connectivity reference. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))
4. Review of Submarine Cable Landing License Rules and Procedures To Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks - FCC 26-42
   · The FCC's July xx.xx 2026 publication adds terminal-owner oversight and security-related conditions, specifies September xx.xx 2026 for nondelayed provisions, and separately identifies amendments awaiting effective-date announcements. ([govinfo.gov](https://www.govinfo.gov/content/pkg/FR-2026-xx.xx-xx.xx/pdf/2026-xx.xx.pdf))
5. Cable Landing Stations - DC BLOX
   · DC BLOX identifies Myrtle Beach as existing and Palm Coast as expected to operate in the first quarter of 2027. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
6. Southern Cross, ASN, and OMS Group Sign SX Tasman Express SX-TX Subsea Cable Supply Contract
   · The June 2025 contract announcement identifies a 2028 completion milestone, distinguishing joint contracted responsibility from completed service. ([asn.com](https://www.asn.com/wp-content/uploads/2025/xx.xx/Press-Release-SX-TX.pdf))

7. Cirion introduces Landing Party Services in Latin America
   · The May xx.xx 2025 announcement establishes an explicitly marketed landing-party service, not acceptance of every prospective customer site.
   ([press.ciriontechnologies.com](https://press.ciriontechnologies.com/en/2025/xx.xx/xx.xx/landing-party-services-latin-america/))
8. Prysmian a capo di una joint venture con Fincantieri per acquisire Xtera
   · Prysmian's December xx.xx 2025 announcement establishes an agreement to acquire Xtera through a venture with Fincantieri, conditional on regulatory approvals.
   ([prysmian.com](https://www.prysmian.com/it/media/comunicati-stampa/prysmian-fincantieri-acquisizione-xtera))
9. Padtec creates Padtec Marine Networks and acquires LEV Brasil to accelerate its expansion in the submarine infrastructure market
   · Padtec's June xx.xx 2026 announcement describes a submarine and coastal infrastructure business combining optical-system capabilities with LEV's marine, geoscience, and environmental services; the announced acquisition was conditional.
   ([padtec.com.br](https://www.padtec.com.br/en/padtec-creates-padtec-marine-networks-and-acquires-lev-brasil-to-accelerate-its-expansion-in-the-submarine-infrastructure-market/))
10. Padtec - Resultados 2T26, apresentação de 6 de agosto de 2026
    · Padtec's August xx.xx 2026 results presentation reports the entry into operation of Padtec Marine Networks following LEV Brasil's capitalization.
    ([rad.cvm.gov.br](https://www.rad.cvm.gov.br/ENETCONSULTA/frmDownloadDocumento.aspx?CodigoInstituicao=xx.xx&Tela=xx.xx&descTipo=IPE&numProtocolo=xx.xx&numSequencia=xx.xx&numVersao=xx.xx))
11. Lightera Announces Major Capital Investment to Expand Submarine Optical Fiber Manufacturing
    · Lightera's September xx.xx 2026 announcement describes investment to expand submarine-fiber manufacturing in Denmark and the United States; it establishes a commitment rather than immediate additional availability.
    ([lightera.com](https://lightera.com/n/lightera-announces-major-capital-investment-to-expand-submarine-optical-fiber-manufacturing/))

24.4. Product Portfolio Analysis, 2025

The principal portfolio distinction is between responsibility for a delivered system and responsibility for an included component or service. ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪ Buyers should compare the named contractual undertaking, not simply the breadth of the supplier's catalog.

Optical fiber and finished submarine cable represent different purchasing layers. ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ Component breadth can expand sourcing options, but it does not establish complete-system responsibility or interchangeability within an owner's approved supply chain.

Specialist equipment adds alternatives without replicating an integrated delivery undertaking. Spellman High Voltage Electronics Corporation distinguishes shore-station, shipborne, and portable power-feeding equipment. [redacted]

Software portfolios address different ownership obligations. Makai Ocean Engineering connects cable-planning and marine-operations applications, whereas Ciena combines transmission equipment with network-control software and services for installed networks. [redacted]

Monitoring is also differentiated by the operating model being purchased. ASN's OptoDAS combines sensing equipment, processing software, and support; FiberSense Pty Ltd markets DigitalMarine with continuing operations assistance; and VIAVI Solutions Inc. supplies instrumentation and remote-monitoring products. [redacted]

Service breadth should be evaluated against the lifecycle package. [redacted] These roles can complement system delivery, but advisory, survey, installation, and retirement contracts impose different acceptance and liability boundaries.

Landing development and landing access are not interchangeable products. [redacted] Construction can preserve owner control, whereas hosting or outsourced operation transfers selected facility duties and introduces continuing access dependencies.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · NEC's portfolio establishes integrated-system participation distinct from separately purchased equipment and services. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. MakaiPlan
   · MakaiPlan supports collaborative project information and connections with MakaiPlan Pro and MakaiLay, establishing a planning and marine-software offering. ([makai.com](https://www.makai.com/cable-software/makaiplan/))
3. Fiber sensing (DAS)
   · ASN markets OptoDAS sensing equipment, processing software, monitoring applications, and support. ([asn.com](https://www.asn.com/fiber-sensing/))
4. Experience
   · Xtera's combination of system, package, upgrade, and redeployment offerings supports a fulfillment-model distinction within overlapping portfolios. ([xtera.com](https://xtera.com/experience/))
5. DigitalMarine
   · DigitalMarine is marketed as monitoring with continuing network-operations assistance, distinguishing its operating model from an equipment-only purchase. ([fibersense.com](https://fibersense.com/digitalmarine/))
6. Alcatel Submarine Networks invests in its industrial production facilities
   · The disclosed turnkey offering supports the distinction between integrated system responsibility and narrower purchased offerings. ([asn.com](https://www.asn.com/press-release/asn-invests-in-its-industrial-production-facilities/))
7. Subsea cables: Supporting the energy shift and securing global infrastructure
   · Hexatronic expressly identifies an unrepeatered subsea-fiber focus. ([hexatronic.com](https://www.hexatronic.com/en/news/subsea-cables-supporting-the-energy-shift-and-securing-global-infrastructure))
8. How GeoMesh Extreme Works
   · Ciena's network-control software and equipment address a different purchase from cable-planning and marine-operations software. ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))
9. Ultra-low loss submarine fibers Z fiber™ series
   · Sumitomo Electric markets submarine optical fibers, including its Multicore Fiber offering, separately from complete-system delivery. ([sumitomoelectric.com](https://sumitomoelectric.com/products/optical-fibers/z-fiber))
10. Our Services - Mertech Marine
    · Mertech markets retired-cable recovery and recycling, shore-end services, depot services, and logistics. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))
11. Power Feed Equipment (PFE)
    · Spellman markets distinct shore-station, shipborne, and portable power-feeding equipment families for submarine telecommunications. ([spellmanhv.com](https://www.spellmanhv.com/en/Industries/Undersea-Power))
12. Cable Landing Stations - DC BLOX
    · The portfolio supports distinguishing hosted landing from construction and owner operation. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
13. Terrestrial Services | International Network Systems
    · INS offers partner-supported modular cable stations, local infrastructure, transport, installation, and dry-plant maintenance. ([insworldwide.com](https://www.insworldwide.com/terrestrial-services))
14. Tykoflex | Lagercrantz
    · The company-specific description supports Tykoflex's passive-accessory role and multiple purchasing tiers. ([lagercrantz.com](https://www.lagercrantz.com/operations/electrify/company-development-within-electrify/tykoflex/))

15. Seaflex® - Advanced Submarine Fibre Closures | Tykoflex
· Tykoflex markets Seaflex submarine fiber joint closures; product availability does not establish acceptance for every cable. ([tykoflex.com](https://tykoflex.com/products/seaflex))
16. FiberSense and Southern Cross announce deployment of shore-end monitoring on New Zealand subsea network portion
· FiberSense reports deployment on Southern Cross's New Zealand shore-end infrastructure and associated terrestrial connections, not unrestricted whole-route implementation. ([fibersense.com](https://fibersense.com/news/fibersense-and-southern-cross-cable-networks/))
17. Submarine Cable Networks | VIAVI Solutions Inc.
· VIAVI markets submarine instrumentation and remote monitoring and describes bounded applications including the first segment of amplified links. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/submarine-cable-networks))
18. Subsea Landing Solutions - Telxius
· The landing-service portfolio is distinct from owner-controlled construction and from submarine equipment supply. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))
19. SubCom Overview Flyer 2025
· The overview supports classifying SubCom's portfolio as an integrated delivery proposition rather than a standalone component offering. ([subcom.com](https://www.subcom.com/documents/SubCom-OverviewFlyer-2025-web.pdf))
20. Company Profile | About OCC
· OCC's cable-manufacturing role is distinct from the separately supplied fiber portfolios of its disclosed shareholders. ([occjp.com](https://www.occjp.com/en/company/profile.html))
21. Submarine Cable Industry Links
· The directory describes IT International Telecom's engineering and marine services, identifies EGS under surveyors, and describes advisory or protection roles for Ocean Specialists, WFN Strategies, Pelagian, and Pharos. ([iscpc.org](https://iscpc.org/information/submarine-cable-industry-links/))
22. Cirion introduces Landing Party Services in Latin America
· The package includes facility and landward interfaces rather than merely supplying submarine equipment. ([press.ciriontechnologies.com](https://press.ciriontechnologies.com/en/2025/xx.xx/xx.xx/landing-party-services-latin-america/))
23. Submarine Fibers | Optical Communications | Corning
· Corning maintains a dedicated submarine optical-fiber portfolio for regional and transoceanic applications. ([corning.com](https://www.corning.com/optical-communications/cala/en/home/products/fiber/optical-fiber-products/submarine-fibers.html))
24. Subsea Ocean Fiber Solutions - Lightera
· Lightera maintains an ocean-fiber product portfolio, supporting its component-supply role rather than complete-system responsibility. ([lightera.com](https://lightera.com/ocean-fiber/))
25. Submarine Telecom Cable Solutions (NSW)
· Prysmian's NSW telecommunications business markets submarine fiber-optic cable, accessories, and associated services. ([prysmian.com](https://www.prysmian.com/en/markets/transmission/submarine-power/submarine-telecom-solutions))
26. Submarine Fiber Optic Cable - ZTT
· ZTT's commercial catalog identifies repeatered and non-repeatered submarine optical cables. ([zttgroup.com](https://www.zttgroup.com/product-category/marine-systems/submarine-fiber-optic-cable/))
27. Marine Network - FiberHome
· FiberHome lists submarine cable, line-terminal and power-feeding equipment, repeaters, and branching equipment within its marine-network portfolio. ([en.fiberhome.com](https://en.fiberhome.com/marinenetwork.html))

28. Ledcor Technical Services - Marine Services
· Ledcor's marine-services brochure connects landing support, station construction, backhaul, dry-plant duties, and customized submarine installation services. ([ledcor.com](https://www.ledcor.com/content/dam/ledcor/pdfs/newsroom/publications/brochures/lts-marine-services.pdf))

24.5. Benchmarking Analysis, 2025

Benchmarking should begin with the package being awarded, the accountable seller, the relevant delivery milestone, and the buyer's retained responsibilities. An integrated-system comparison among Alcatel Submarine Networks, SubCom, NEC Corporation, and Xtera requires references matching the proposed undertaking. ▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪

For terminal purchases, Ciena and Nokia provide identifiable equipment-led alternatives, but system eligibility and continuing support must be established before substitution. Mitsubishi Electric maintains an optical-submarine-system inquiry channel; that channel alone does not establish the current package or delivery reference needed for an equivalent comparison. ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪ ▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪

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For cable sourcing, buyers can compare the documented offerings of Prysmian, Hexatronic, ZTT, FiberHome, and OCC Corporation without assuming equal system breadth. Nexans appears in ICPC's system-supplier links, but a procurement comparison still needs its current cable-versus-installation undertaking. ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪ ▪▪▪▪▪▪▪▪ ▪▪ ▪ ▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪ ▪ ▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪

Related-business attribution must also be resolved for LS Cable & System Ltd. and LS Marine Solution Co., Ltd; Yangtze Optical Fibre and Cable Joint Stock Limited Company and AVIC Baosheng Ocean Engineering Cable Co. Ltd.; Hunan GL Technology Co., Ltd; and PT Communication Cable Systems Indonesia Tbk. ▪▪▪▪▪▪ ▪▪▪▪▪▪ ▪▪▪▪▪▪▪▪▪ ▪▪▪▪▪ ▪▪▪▪▪▪

The appropriate comparison distinguishes executable procurement management, permission-related deliverables, and concept-stage evaluation. An advisor can contribute coordination or local experience without receiving authority to commit the owner's expenditure or assume the suppliers' warranties.

For appointments involving Great Eastern Group, Assured Communications, Cambridge Management Consulting Limited, Fígoli Consulting, CA LATAM, Marine Consolidated Consultancy, Monenco Iran Consulting Engineers, or Kazakhstanskoye Agentstvo Prikladnoy Ekologii, the unresolved purchasing distinction is the actual submarine-specific mandate and jurisdictional responsibility. Ocean Networks, Inc. additionally requires separation of project development, externally sold services, and retirement-related activity.

Survey references must establish the purchasing constituency as well as the deliverable. Fugro's Argentina disclosure identifies SubCom as its customer, while CSR GeoSurveys Ltd. markets telecommunications-related route and inspection surveys.

Regional marine comparisons involving IT International Telecom Inc., S. B. Submarine Systems Co., Ltd, and the directory-listed installation providers require current seller, territory, and contractual-resource confirmation. For NTT World Engineering Marine Corporation, Temasa Marine S.L., Solwake, PT Limin Marine & Offshore, and Kalypso Offshore Energy, continuity of the named identity and the proposed telecommunications undertaking remain material qualification questions.

European execution alternatives involving LD Armateurs, LD TravOcean, Asso.subsea, SMD, Cecon Contracting, N-Sea, Oceans & Cables Limited, Navia Subsea Services, S.L., Sumergia, S.A., Gaeaquatic Ltd, PCS Italiana Srl, and Pina Underwater Services Ltd need a documented communications-cable package and accountable execution entity. Engineering Technology Applications Ltd. and ETA-Connect Limited additionally require their related-entity and appointed-service boundaries to be established.

[illegible]

[illegible] Padtec Holding S.A.'s reported marine-business expansion provides a different, documented integration path, but does not establish the role of those other entities. Buyers should distinguish principal delivery from survey, local civil work, maritime support, and subcontract participation before replacing an incumbent package supplier.

[illegible] A shortlist should identify the communications application, legal seller, territorial permissions, and accepted delivery reference before attributing the complete package to any of these identities.

[illegible] Triasmitra's explicit customer-system offering is a useful comparator, not proof that the other companies supply the same managed-service obligation. NJFX and Globalinx Data Centers LLC require site-specific hosting and interconnection rights before comparison with DC BLOX; network presence alone does not establish customer access to a cable landing.

For Middle Eastern and African packages involving GateMarine, METCO MARINE, Gold Line Shipping LTD, Marisol Qatar, Gulf Global Land & Sea Services LLC, NahjTech, Bridge Technologies, Maadi Engineering Contracting Co. (MEC), MAGNOM Holding, Gulf Energy Technology & Projects, and Indicomm, buyers must establish whether the offered role is distribution, logistics, local infrastructure, equipment support, or direct marine delivery. [illegible]

Comparable confirmation is required for Atlantic Marine & Oilfield Services Limited, CosmosEdge Technologies Limited, ENG RYPAC Nigeria Limited, MacDeck Nigeria Limited, AMSOL, James Fisher Subtech, Alpha Logistics Services (EPZ) Ltd, Enviro-Consult Ltd, ACER (Africa) Environmental Consultants, Marine Contractors & Consultants Ltd., Impresub, Marine Cable Services, and Environtech Consultancy Africa Ltd. [illegible]

■■■■■■■■ ■■■ ■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ Historical association with a project does not establish continuing availability for a new award.

Scientific and sensing participation requires a separate commercial benchmark. ■■■■■■ ■■■■■■■ ■■■■ ■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■ ■■■■■■■■ ■■■■■■■■■■■ ■■ ■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■ ■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■ Demonstration participation, instrumentation availability, and facility support address different purchasing requirements.

Retirement comparisons should establish who owns the retired asset and recovered material. ■■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■ ■■■■■ ■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■■■■ ■■■■■ ■■ ■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■■ Consolidating recovery and downstream handling can reduce interfaces, but only an agreed scope resolves residual ownership, removal, and acceptance responsibility.

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   · The published end-to-end undertaking supplies a defensible complete-system peer boundary. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. Disaggregated System Supply
   · Its owner-side coordination offering supports mandate-specific comparison with environmental and concept-stage advisory appointments. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
3. Experience
   · Partner participation and selectable scope require undertaking-specific benchmarking rather than inference from the system-supplier label. ([xtera.com](https://xtera.com/experience/))
4. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   · The disclosed immediate-customer relationship supports distinguishing specialist survey procurement from an assumed relationship with the ultimate beneficiary. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
5. Alcatel Submarine Networks invests in its industrial production facilities
   · ASN's integrated commercial undertaking provides a system-level comparison boundary, not automatic responsibility for every purchased package. ([asn.com](https://www.asn.com/press-release/asn-invests-in-its-industrial-production-facilities/))
6. Subsea cables: Supporting the energy shift and securing global infrastructure
   · Its stated focus supports architecture- and package-specific cable comparison, not automatic equivalence with integrated repeatered-system delivery. ([hexatronic.com](https://www.hexatronic.com/en/news/subsea-cables-supporting-the-energy-shift-and-securing-global-infrastructure))
7. How GeoMesh Extreme Works
   · The equipment-led portfolio supports package-specific terminal benchmarking without establishing complete wet-plant responsibility. ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))

8. Our Services - Mertech Marine
   · The recovery-and-handling portfolio supports distinguishing a service contract from transfer of the retired cable asset. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))
9. Our Assets - Mertech Marine
   · Mertech reports ownership of out-of-service cable assets and logistics cooperation, supporting separate assessment of asset rights and contracted recovery.
   ([mertechmarine.co.za](https://mertechmarine.co.za/our-assets/))
10. Power Feed Equipment (PFE)
    · The published product offering does not establish a second independent legal seller under an abbreviated Spellman label. ([spellmanhv.com](https://www.spellmanhv.com/en/Industries/Undersea-Power))
11. Submarine Cable Services
    · Tetra Tech documents telecommunications environmental, permitting, agency-consultation, crossing-agreement, and construction-support services.
    ([tetratech.com](https://www.tetratech.com/wp-content/uploads/2023/xx.xx/Submarine-Cable-Services.pdf))
12. Cable Landing Stations - DC BLOX
    · Its site-specific hosting model provides a comparator for proposed landing and interconnection alternatives without granting access at other providers' locations.
    ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
13. Managed Services - Triasmitra
    · Its external customer-system offering provides a documented comparator for unresolved manufacturing, distribution, installation-support, and operating-service distinctions.
    ([triasmitra.com](https://triasmitra.com/services/managed-services))
14. APTelecom and FiberSense Advance Subsea Cable Monitoring Capabilities Through Strategic Collaboration
    · The disclosed collaboration establishes a commercial-engagement role, not general authority to sell or operate every monitoring service.
    ([aptelecom.com](https://aptelecom.com/aptelecom-and-fibersense-advance-subsea-cable-monitoring-capabilities-through-strategic-collaboration/))
15. SubCom Overview Flyer 2025
    · SubCom's disclosed responsibility breadth supports benchmarking it against a proposed complete-system undertaking. ([subcom.com](https://www.subcom.com/documents/SubCom-OverviewFlyer-2025-web.pdf))
16. Nokia powers Surge's subsea network, boosting affordable broadband for millions in Indonesia
    · The reported optical-equipment deployment supports a terminal-led comparison, not buyer-independent qualification or complete-system equivalence.
    ([nokia.com](https://www.nokia.com/newsroom/nokia-powers-surges-subsea-network-boosting-affordable-broadband-for-millions-in-indonesia/))
17. Company Profile | About OCC
    · The company profile supports a cable-level benchmark while requiring ownership relationships to remain explicit. ([occjp.com](https://www.occjp.com/en/company/profile.html))
18. Submarine Cable Industry Links
    · The directory supplies company-role leads, including Nexans under system suppliers, without establishing current legal-seller, application, or contract qualification.
    ([iscpc.org](https://iscpc.org/information/submarine-cable-industry-links/))
19. Submarine Telecom Cable Solutions (NSW)
    · The portfolio supports cable-level comparison without assuming every purchase includes the same complete-system undertaking.
    ([prysmian.com](https://www.prysmian.com/en/markets/transmission/submarine-power/submarine-telecom-solutions))
20. Submarine Fiber Optic Cable - ZTT
    · The catalog establishes cable-category breadth without allocating a buyer's complete-system responsibilities.
    ([zttgroup.com](https://www.zttgroup.com/product-category/marine-systems/submarine-fiber-optic-cable/))

21. Marine Network - FiberHome

· The portfolio supports package-breadth comparison while leaving the named seller's individual delivery undertaking to qualification. ([en.fiberhome.com](https://en.fiberhome.com/marinenetwork.html))

22. Optical submarine cable systems - Mitsubishi Electric

· Mitsubishi Electric maintains a dedicated optical-submarine-system inquiry page; it does not identify a complete current commercial package and delivery reference for this comparison. ([mitsubishielectric.com](https://www.mitsubishielectric.com/en/contact/optical-submarine-cable-systems/))

23. Privacy statement - Adtran Networks

· Adtran Networks' legal statement identifies ADVA Optical Networking SE as its former name, establishing naming continuity rather than another independent corporate identity. ([adtran-networks.com](https://www.adtran-networks.com/en/about-us/legal/privacy-statement))

24. Member List - International Cable Protection Committee

· ICPC lists HMN Technologies Co., Ltd and HMN Technologies Group Co., Ltd. separately; membership does not establish independence or allocate their commercial undertakings. ([iscpc.org](https://www.iscpc.org/about-the-icpc/member-list/))

25. Salience and Pioneer to Develop a Pre-Feasibility Study for Antarctic Cable

· Salience reports an Antarctic cable pre-feasibility engagement with Pioneer, establishing an advisory appointment rather than a construction award. ([salienceconsulting.ae](https://salienceconsulting.ae/salience-and-pioneer-to-develop-a-pre-feasibility-study-for-antarctic-cable/))

26. Pipeline & Cable Routing - CSR GeoSurveys

· CSR GeoSurveys markets route and inspection surveys for telecommunications and other applications, supporting application-specific survey benchmarking. ([csrgeosurveys.com](https://csrgeosurveys.com/marine/pipeline-cable-routing))

27. Padtec creates Padtec Marine Networks and acquires LEV Brasil to accelerate its expansion in the submarine infrastructure market

· The announced integration supplies a company-specific development path without establishing other regional companies' contracting roles. ([padtec.com.br](https://www.padtec.com.br/en/padtec-creates-padtec-marine-networks-and-acquires-lev-brasil-to-accelerate-its-expansion-in-the-submarine-infrastructure-market/))

28. Padtec - Resultados 2T26, apresentação de 6 de agosto de 2026

· The disclosed operating-business milestone supports considering Padtec's integration path separately from unverified regional package roles. ([rad.cvm.gov.br](https://www.rad.cvm.gov.br/ENETCONSULTA/frmDownloadDocumento.aspx?CodigoInstituicao=xx.xx&Tela=xx.xx&descTipo=IPE&numProtocolo=xx.xx&numSequencia=xx.xx&numVersao=xx.xx))

25. Company Profiles

25.1. Alcatel Submarine Networks

Alcatel Submarine Networks offers turnkey submarine transmission systems to telecommunications operators and content providers, supported by European industrial facilities and a worldwide cable-ship fleet. Its commercial proposition combines equipment supply, deployment, and continuing services, giving owners a potential consolidated delivery counterparty. ■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■■■ ■■■■ ■■■■■ ■■■■■■■■■■■■■■ ■■ ■■■■■■■ ■■ ■■■■■■■■ ■■ ■■ ■■■■■■■■■■ ■■■■■■■■■

ASN distinguishes warranty hardware repair and standard technical support from optional extended support, replacement services, and renewed maintenance. Its service portfolio also includes marine-repair coordination, network monitoring, and cybersecurity, while first-level support remains a customer responsibility. ■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■ ■■■ ■■■■■■■ ■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■ ■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■

The OptoDAS portfolio adds sensing equipment, processing software, cable-threat monitoring applications, and customer support from Trondheim. This gives cable owners a separately identifiable monitoring purchase rather than an automatic consequence of turnkey connectivity delivery. ■■■■■■ ■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■ ■■■■■■■ ■ ■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■ ■■■■■ ■■ ■ ■■■■■■■■■■■■■ ■■■■■■■■■■■■

Sources & Evidence

1. ASN End to End Services & Solutions for Submarine Cable Systems
   - ASN distinguishes warranty, optional extended support, maintenance renewal, customer first-level responsibility, marine-repair coordination, network monitoring, and cybersecurity services. ([asn.com](https://www.asn.com/wp-content/uploads/2024/xx.xx/Plaquette-Long-Term-Support-HD.pdf))
2. Fiber sensing (DAS)
   - ASN markets OptoDAS equipment, processing software, cable-threat monitoring applications, and customer support from Trondheim, with a service and maintenance agreement offered. ([asn.com](https://www.asn.com/fiber-sensing/))
3. Alcatel Submarine Networks invests in its industrial production facilities
   - ASN offers turnkey submarine transmission systems to telecommunications operators and content providers, supported by European facilities and a worldwide cable-ship fleet. ([asn.com](https://www.asn.com/press-release/asn-invests-in-its-industrial-production-facilities/))
   - Company verification: Identifies Alcatel Submarine Networks as a supplier that develops, produces, deploys, and maintains turnkey submarine transmission systems.
   - Company verification: Describes European production facilities and identifies the business as majority owned by the French State Investment Agency.
4. Southern Cross, ASN, and OMS Group Sign SX Tasman Express “SX-TX” Subsea Cable Supply Contract
   - Company verification: Identifies ASN as a signatory and subsea technology supplier for the Sydney-Auckland SX Tasman Express project.

25.2. NEC Corporation

NEC Corporation markets end-to-end submarine cable systems extending through maintenance. ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■ ■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ Buyers can assess a consolidated system proposition, but should identify the contracting entity and the responsibilities actually included rather than attribute every group capability automatically to the bidder.

NEC reported completion and handover of the East Micronesia Cable System on May xx.xx 2026, to operators in the Federated States of Micronesia, Kiribati, and Nauru. ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■ ■■■ ■■■ ■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■■■ ■ ■■■■■■■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■ Suppliers pursuing comparable projects should establish the authorized purchaser and acceptance authority instead of treating a funding government or beneficiary as the contracting customer.

Petal presents a different status: the September 2026 collaboration assigns NEC system construction, Meta funding and operation, and Sumitomo Electric fiber supply, with operation scheduled for 2029. Buyers should use milestone-specific references rather than treat an announced architecture as delivered infrastructure. ■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■

Sources & Evidence

1. Submarine Cable Systems: Products & Solutions
   - NEC markets end-to-end submarine cable systems extending from system development through maintenance. ([nec.com](https://www.nec.com/en/global/prod/nw/submarine/))
2. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   - Petal assigns system construction to NEC and funding and operation to Meta, with operation scheduled for 2029. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))
   - Company verification: The September xx.xx 2026 announcement identifies NEC Corporation as responsible for overall design and construction of the planned Petal submarine cable system.
   - Company verification: The announced system is scheduled to commence operation in 2029; the announcement does not establish an operational cable.
3. NEC completes construction of approximately 2,250 km EMCS submarine cable linking Pacific island nations
   - On May xx.xx 2026, NEC reported EMCS completion and handover to receiving operators, with grant support from Australia, Japan, and the United States.
   - NEC describes an integrated delivery framework with OCC contributing submarine cables and NEC Platforms contributing repeaters. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260515_02.html))
4. NEC Corporation, OCC Corporation and Sumitomo Electric Industries, Ltd. complete first trial of submarine cable with multicore fiber
   - Company verification: The October xx.xx 2021 company announcement explicitly identifies OCC Corporation as an NEC subsidiary.
   - Company verification: This dated ownership statement supports a reporting-overlap assessment when combined with OCC's current stockholder disclosures.

5. Submarine Cable Systems: Products & Solutions | NEC
   - Company verification: NEC's current product and solutions page offers submarine cable systems and presents commercial system projects.

25.3. Hexatronic

Hexatronic focuses its subsea fiber business on unrepeatered systems and identifies spare-cable support and sensing collaboration with group company Proximion. ■■■■ ■■■■■■■■ ■ ■■■■■■■ ■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■

For regional-connectivity purchases, owners should confirm the contracting seller, committed spares, and responsibility for installation, terminal integration, and restoration. Package choice is useful only when those remaining obligations are assigned. ■■■■■■■■■■■■■■■ ■■■■■■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■ ■■ ■■■■ ■■■ ■■■■■■■■■ ■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■ ■■■■■■ ■■■■■■■■■■■■■

Sources & Evidence

1. Subsea cables: Supporting the energy shift and securing global infrastructure
   - Hexatronic states an unrepeatered subsea-fiber focus and identifies spare-cable support and sensing collaboration with group company Proximion. ([hexatronic.com](https://www.hexatronic.com/en/news/subsea-cables-supporting-the-energy-shift-and-securing-global-infrastructure))
2. Submarine Networks | Solutions | Hexatronic Fiber Solutions
   - Company verification: Hexatronic offers unrepeatered submarine fiber-optic cables and complete cable-system delivery including joints.
   - Company verification: The offering addresses deep-water and shallow-water communications connectivity.

25.4. Ciena

Ciena's submarine proposition centers on transmission equipment, network-control software, and associated services rather than complete wet-plant construction. ■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■ ■■■ ■■■■■■■■■■ ■■■■ ■■■■■■■■ This makes Ciena relevant to owners purchasing improvements to an installed asset, provided the purchased package's integration and support responsibilities are explicit.

The September xx.xx 2026 Angola Cables announcement describes planned deployment of Waveserver, the xx.xx platform, and Navigator Network Control Suite on the existing MONET and SACS systems connecting the United States, Brazil, and Angola. ■■ ■■■■■■■■■■■ ■ ■■■■■ ■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■■■■ ■■■ ■■■■■■■■■■ ■■ ■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■ ■ ■■■■■■■■■■■ ■■■ ■ ■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■ ■■■■■■■■■ ■ ■■■ ■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■ ■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ Before commitment, buyers should confirm system-specific eligibility, software integration, acceptance authority, and continuing support; the announced deployment cannot establish those conditions for another owner.

Sources & Evidence

1. Angola Cables Boosts Capacity Across MONET and SACS Submarine Cable Systems with Ciena Technology
   · The September xx.xx 2026 announcement describes planned Waveserver, xx.xx and Navigator Network Control Suite deployment on Angola Cables' existing MONET and SACS systems. ([ciena.com](https://www.ciena.com/about/newsroom/press-releases/angola-cables-boosts-capacity-across-monet-and-sacs-submarine-cable-systems-with-ciena-technology))
2. How GeoMesh Extreme Works
   · GeoMesh Extreme combines transmission hardware, network management, and professional services across submarine and terrestrial networks; customers can select required components. ([ciena.com](https://www.ciena.com/insights/how/How-GeoMesh-Extreme-Works.html))
3. Submarine networking - Ciena
   · Company verification: Ciena markets GeoMesh Extreme submarine networking through optical hardware, software, and professional services.
   · Company verification: Its submarine portfolio includes coherent optics, packet-optical platforms, network control, and associated services.

25.5. Sumitomo Electric Industries, Ltd.

[redacted] Its portfolio includes PureBand Submarine and Z fiber products, alongside 2C Z-PLUS Fiber ULL Multicore Fiber. This establishes participation at the component layer: a fiber offering is commercially distinct from undertaking complete cable-system construction, marine delivery, or operation.

Petal's announced allocation makes Sumitomo Electric the Multicore Fiber supplier and NEC the system constructor, with operation scheduled for 2029. [redacted]

Buyers should distinguish catalog availability from an operating system reference and verify the purchasing entity, qualification authority, delivery commitment, and support allocation before selecting a component. [redacted] Conversely, Petal's future operating milestone does not mean Sumitomo's marketed Multicore Fiber offering is merely an uncommercialized research activity.

Sources & Evidence

1. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
   · Petal assigns Multicore Fiber supply to Sumitomo Electric alongside NEC's system-construction responsibility; operation is scheduled for 2029. ([nec.com](https://www.nec.com/en/press/xx.xx/global_20260922_01.html))
2. Ultra-low loss submarine fibers Z fiber™ series
   · Sumitomo Electric markets submarine optical-fiber products for regional and transoceanic applications, including PureBand Submarine, Z fiber products, and 2C Z-PLUS Fiber ULL Multicore Fiber. ([sumitomoelectric.com](https://sumitomoelectric.com/products/optical-fibers/z-fiber))
   · Company verification: Sumitomo Electric markets the Z fiber series and other named optical-fiber products specifically for regional and transoceanic submarine cable networks.

25.6. Global Marine

Global Marine provides telecommunications cable installation, maintenance, and emergency repair, with worldwide operations and offices in the United Kingdom and Singapore. Its marine assets and depot services support a lifecycle-services proposition distinct from an equipment warranty. ■■■■■■■■■■■■ ■■■■ ■■ ■■■■■■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■ ■■■■ ■■■■■■■■■ ■■■■■ ■■■■■■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■

The published maintenance scope excludes shallow-water sections and beach joints unless specifically contracted. ■■■■■■■■■■■■■ ■■■■ ■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■■■ These distinctions make the agreement boundary, rather than the vessel portfolio, the basis for assessing coverage.

Owners should compare the relevant service territory, approval arrangements, depot obligations, and enforceable entitlement before choosing a channel. Regional pooling provides organized shared access; private contracting permits separate negotiation without inherently establishing superior priority. ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■ ■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■ ■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■ ■ ■■■■■■■■■ ■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■ ■■■■ ■■ ■■ ■■■■ ■■■■■■ ■■ ■■ ■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■ ■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■

Sources & Evidence

1. About Global Marine
   - Global Marine offers telecommunications installation, maintenance, and emergency repair, operates worldwide, and identifies offices in the United Kingdom and Singapore. ([globalmarine.co.uk](https://globalmarine.co.uk/about-us/about-global-marine/))
   - Company verification: Global Marine identifies itself as part of Global Marine Group and offers installation, maintenance, and emergency repair services to the telecommunications sector.
   - Company verification: Describes worldwide operations with offices in the United Kingdom and Singapore.
2. Subsea Telecommunications Fibre Optic Cable Maintenance
   - Published maintenance scope excludes shallow water and beach joints unless contracted; some repairs require quotations. ACMA is member-run, includes depot storage, and requires approval for certain additional work. ([globalmarine.co.uk](https://globalmarine.co.uk/services/subsea-cable-maintenance/))
3. Telecoms
   - Global Marine offers maintenance through ACMA, NAZ, and SEAIOCMA zones or private agreements, alongside installation, lifecycle services, and customer depot storage. ([globalmarine.co.uk](https://globalmarine.co.uk/our-markets/telecoms/))
4. Our History | Global Marine Group
   - Company verification: The corporate history records completion of Keppel Infrastructure Fund's acquisition of Global Marine Group in 2025.
   - Company verification: Identifies the continuing group organization and its submarine-cable business history.
5. Global Marine Group Appoints Simon Hibberd as Chief Executive Officer
   - Company verification: The July xx.xx 2026 announcement confirms continuing Global Marine Group operations following Keppel's March 2025 acquisition.
   - Company verification: Describes continuing organizational connections between Global Marine Group and SBSS without establishing their current accounting consolidation.

25.7. Fugro

Fugro offers dedicated fiber-optic cable route surveys for submarine communications projects. Its relevant capability is the specialist survey and project-information package, which supports subsequent route and installation decisions without making the survey provider the complete-system supplier. [redacted] Owners retaining direct survey procurement should specify information rights, handoff responsibility, and acceptance authority; buying through the system supplier can consolidate those interfaces, but gives the specialist a different immediate customer. The disclosed relationship establishes this project's channel, not a universal contracting model or access entitlement elsewhere.

Sources & Evidence

1. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
   - Fugro's September xx.xx 2026 disclosure identifies SubCom as its survey customer for telecommunications-cable work off Argentina and denies a UK-government contracting relationship for that work. ([fugro.com](https://www.fugro.com/news/business-news/2026/fugro-responds-to-media-reports-on-subsea-cable-work-in-the-atlantic-ocean))
   - Company verification: On September xx.xx 2026, Fugro identified SubCom as its customer for seabed surveying associated with an international subsea telecommunications cable project.
   - Company verification: The disclosure identifies project work off Argentina; it does not characterize the work as a UK-government contract.
2. Route Cable: Fibre optic cable route surveys
   - Fugro offers dedicated fiber-optic cable route-survey services supporting submarine communications development and subsequent route and installation decisions. ([fugro.com](https://www.fugro.com/expertise/fibre-optic-cable-route-surveys))
   - Company verification: Fugro offers dedicated fiber-optic cable route-survey services supporting submarine communications cable projects.

25.8. Pioneer Consulting

[redacted] Its disaggregated-system offering covers procurement and contract formation, permitting oversight, implementation coordination, and project management, including supplier selection and timing for separately purchased equipment and marine packages. This addresses the coordination burden created when an owner retains package-level choice rather than appointing a single delivery counterparty.

[redacted]

[redacted] Owners should therefore define the advisor's mandate, delegated authority, deliverables, and escalation responsibilities before relying on it to coordinate purchasing. Advisory support can make disaggregated delivery more manageable, but does not itself transfer supplier warranties or the owner's authority to approve expenditure and accept work.

Pioneer also supports turnkey procurement, including coordination with separately purchased landing-station and civil-work packages. Its role is consequently not limited to replacing a turnkey model: it can address interfaces that remain outside a consolidated supply agreement. [redacted]

Sources & Evidence

1. Disaggregated System Supply
   - Pioneer offers procurement, contract formation, permitting oversight, implementation coordination, and project management for disaggregated systems, including supplier selection and package timing. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/disaggregated-systems/))
2. Project Management
   - Pioneer's project-management scope includes multi-contract schedule integration, partner coordination, supply-contract review, and progress and billing milestones; additional representation and acceptance oversight are separately offered. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/project-management/))
3. Turnkey Systems
   - Pioneer also supports turnkey procurement and offers integration of engineering and schedules across suppliers, including separately procured landing-station and civil-work packages. ([pioneerconsulting.com](https://www.pioneerconsulting.com/services/turnkey-systems/))
4. Salience and Pioneer to Develop a Pre-Feasibility Study for Antarctic Cable
   - Company verification: The January xx.xx 2025 announcement identifies Pioneer Consulting as Salience Consulting's awarded collaborator for the Antarctic submarine-cable feasibility study.
   - Company verification: Establishes a system-specific commercial consulting engagement rather than cable ownership or capacity resale.
5. Services - Pioneer Consulting
   - Company verification: Pioneer Consulting offers project management, system engineering, turnkey and disaggregated system supply, permitting, procurement, and quality-assurance services for submarine system delivery.

25.9. Makai Ocean Engineering

[redacted] MakaiPlan supports collaborative project-data exchange and transfers information into the other applications; MakaiLay provides marine-operation records and reporting. The commercial distinction is continuity of project information across organizations, not ownership of the cable or authority to accept installation work.

[illegible]
Independently selected applications remain an alternative where exchange capability and record-access obligations are documented. Advertised data portability does not establish license-transfer rights, renewal conditions, or an individual customer's support entitlement.

Sources & Evidence

1. MakaiPlan
   - Makai markets MakaiPlan, MakaiPlan Pro, and MakaiLay; MakaiPlan supports collaborative data exchange and direct information transfer into the related applications. ([makai.com](https://www.makai.com/cable-software/makaiplan/))
   - The page identifies a dedicated submarine-cable software helpdesk. ([makai.com](https://www.makai.com/cable-software/makaiplan/))
   - Company verification: Makai markets MakaiPlan as dedicated submarine-cable route-planning software.
   - Company verification: Identifies a related commercial software portfolio including MakaiPlan Pro and MakaiLay.
2. MakaiLay - Makai Ocean Engineering
   - MakaiLay's commercial description includes operation records and reporting; Makai also offers on-site or remote software training. ([makai.com](https://www.makai.com/cable-software/makailay/))
   - These offerings support evaluating software access and continuing support separately from physical system delivery. ([makai.com](https://www.makai.com/cable-software/makailay/))

25.10. Mertech Marine (Pty) Ltd

Mertech Marine (Pty) Ltd combines retired submarine telecommunications cable recovery and recycling with shore-end services, route clearance, depot services, and logistics. It describes its own marine fleet and recycling facilities, alongside cooperation with WIND in the Netherlands for storage and cable transport. [illegible]

The company also reports ownership of out-of-service cable assets in the Atlantic, Mediterranean, and Pacific. An owner assessing retirement should separate a proposed transfer of cable ownership from a contract to recover an owner-retained asset, establishing removal obligations, recovered-material rights, completion acceptance, and remaining liabilities before award. [illegible]

Sources & Evidence

1. Our Services - Mertech Marine
   - Mertech markets retired-cable recovery and recycling, shore-end services, depot services, logistics, and route clearance, and describes its own fleet and facilities. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))
   - The catalog identifies WIND cooperation for storage and transport, supporting explicit allocation of partner responsibilities. ([mertechmarine.co.za](https://mertechmarine.co.za/services/))
   - Company verification: Mertech Marine's inspected commercial catalog offers shore-end services, cable logistics, cable depots, and route clearance in addition to retired-cable recovery and recycling.
   - Company verification: The catalog supports a broader submarine telecommunications lifecycle-service role, but does not establish recent active-system contracts or the revenue split between services and recycling.
2. Our Assets - Mertech Marine
   - Mertech reports ownership of out-of-service cables in the Atlantic, Mediterranean, and Pacific and a partnership with WIND for depot and logistics services. ([mertechmarine.co.za](https://mertechmarine.co.za/our-assets/))
   - Asset ownership and service offerings support distinguishing cable transfer from owner-retained recovery as a contractual choice. ([mertechmarine.co.za](https://mertechmarine.co.za/our-assets/))
3. Member List | International Cable Protection Committee
   - Company verification: The roster lists Mertech Marine (Pty) Ltd as a member in South Africa.

25.11. Spellman High Voltage Electronics Corporation

[illegible] The identified commercial settings include shore stations and cable installation and repair operations. Buyers should therefore evaluate the relevant product family and purchasing responsibility rather than treating every power-feed offering as the same shore-station package.

Spellman's company-wide service portfolio includes a global repair network, extended-warranty options, preventive maintenance programs, and customer-service locations in the United States, United Kingdom, and Asia. [illegible] Electronics repair support should not be equated with marine fault restoration.

Sources & Evidence

1. Power Feed Equipment (PFE)
   - Spellman's submarine telecommunications portfolio distinguishes land-based PFE-HV and PFE-LV, shipborne PFE-SB, and portable PFE-P equipment. ([spellmanhv.com](https://www.spellmanhv.com/en/Industries/Undersea-Power))
   - The disclosed applications include shore stations and cable installation and repair operations. ([spellmanhv.com](https://www.spellmanhv.com/en/Industries/Undersea-Power))
   - Company verification: The shared Spellman branded portfolio offers submarine telecommunications power-feed equipment; separate legal-seller attribution remains unresolved.
2. Service & Technical Support
   - Spellman's company-wide services include a global repair network, extended-warranty options, preventive maintenance, and customer-service locations in the United States, United Kingdom, and Asia. ([spellmanhv.com](https://www.spellmanhv.com/en/About/service-technical-support))
   - The general support disclosure does not establish an individual PFE customer's service coverage or marine restoration entitlement. ([spellmanhv.com](https://www.spellmanhv.com/en/About/service-technical-support))
3. A Global Company with Local Presence
   - Company verification: Identifies Spellman High Voltage Electronics Corporation and its international operating facilities.
   - Company verification: Presents the United Kingdom operation as part of the same international Spellman business.
4. PFE-HV Land-Based Power Feed Equipment | Spellman High Voltage
   - Company verification: Markets PFE-HV land-based power-feed equipment under the Spellman name.
5. Products
   - Company verification: The current product index lists marketed PFE-HV, PFE-LV, PFE-P and PFE-SB equipment families.

25.12. Tetra Tech

[redacted]

Reported Nunavut and Hawaii cable studies establish telecommunications-specific experience rather than relying solely on its power-cable activities. Its Hawaiki reference describes environmental-assessment and permitting work performed during 2015-2017, illustrating a mandate spanning terrestrial and marine permissions.

[redacted]

Historical assignments do not establish authorization for a new project or availability of the same personnel. Selection should therefore depend on relevant jurisdictional experience and a defined engagement scope, not an assumption that an equipment award, a consultant appointment, or a capability listed for power cables discharges telecommunications-project obligations.

Sources & Evidence

1. Submarine Cable Services

   · Tetra Tech markets environmental, permitting, feasibility, agency-consultation, crossing-agreement, and construction-support services for submarine telecommunications projects. ([tetratech.com](https://www.tetratech.com/wp-content/uploads/2023/xx.xx/Submarine-Cable-Services.pdf))

   · Its brochure identifies Government of Nunavut and Ocean Networks Hawaii cable-study experience. ([tetratech.com](https://www.tetratech.com/wp-content/uploads/2023/xx.xx/Submarine-Cable-Services.pdf))

   · Company verification: Tetra Tech markets environmental, permitting, survey, engineering and construction-support services for submarine telecommunications cable systems.

   · Company verification: Documents a Government of Nunavut cable-system study and Hawaii inter-island fiber study experience.

2. Tetra Tech, Inc. Statement of Qualifications - County of Hawaii FY24 Annual Notice of Professional Services

   · Tetra Tech's company-authored qualifications statement reports Hawaiki environmental-assessment and federal, state, and county permitting work during 2015-2017. ([records.hawaiicounty.gov](https://records.hawaiicounty.gov/WebLink/xx.xx/edoc/xx.xx/Tetra%20Tech%20Inc.%xx.xx-%20OH.xx.xx%20Community%20Planning%xx.xx%28Envrionmental%20Assessment%xx.xx.pdf))

   · The historical reference supports telecommunications permitting experience, not current authorization or staffing for a new project. ([records.hawaiicounty.gov](https://records.hawaiicounty.gov/WebLink/xx.xx/edoc/xx.xx/Tetra%20Tech%20Inc.%xx.xx-%20OH.xx.xx%20Community%20Planning%xx.xx%28Envrionmental%20Assessment%xx.xx.pdf))

25.13. DC BLOX

DC BLOX provides a carrier-neutral hosted-landing model in the southeastern United States, distinct from constructing an owner-controlled cable landing station. ■■■ ■■■■■■■■ ■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■ ■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■■ ■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■ These complementary services connect landing accommodation with onward connectivity and facility operations, rather than supplying the submarine system itself.

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Sources & Evidence

1. Cable Landing Stations - DC BLOX
   - DC BLOX markets purpose-built carrier-neutral cable-landing facilities and identifies Myrtle Beach as existing. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
   - Palm Coast, Florida, is expected to become operational in the first quarter of 2027; that statement is a prospective commitment, not operating confirmation. ([dcblox.com](https://www.dcblox.com/cable-landing-stations/))
   - Company verification: DC BLOX markets purpose-built, carrier-neutral subsea cable-landing facilities in the southeastern United States.
   - Company verification: Distinguishes its existing Myrtle Beach facility from Palm Coast, whose expected opening is the first quarter of 2027.
2. Myrtle Beach South Carolina Cable Landing Station - DC BLOX
   - The Myrtle Beach facility offering includes colocation, dark-fiber access to Atlanta, staffed security, and smart-hands support. ([dcblox.com](https://www.dcblox.com/data-centers/myrtle-beach-sc-cable-landing-station/))
   - These complementary offerings support evaluating hosted landing and onward connectivity as contractual packages rather than complete-system supply. ([dcblox.com](https://www.dcblox.com/data-centers/myrtle-beach-sc-cable-landing-station/))

25.14. International Network Systems

[redacted] It reports completing a modular cable landing station and related site works for Exxon Guyana, and terrestrial infrastructure associated with Exxon's Newfoundland submarine cable. These references establish a reported industrial-sponsor purchasing context, although the portfolio does not disclose award or completion dates for those assignments.

Its terrestrial-services offering includes modular cable stations supplied with partners, built in the United States and shipped to project locations, alongside site development, utilities, transport, equipment installation, and dry-plant maintenance. [redacted] The maintenance offering should not be presumed absent, but its scope is separate from construction acceptance and onward interconnection access.

Sources & Evidence

1. Experience | International Network Systems
   - International Network Systems reports completed modular landing-station and site works for Exxon Guyana and terrestrial infrastructure for Exxon's Newfoundland submarine cable. ([insworldwide.com](https://www.insworldwide.com/experience))
   - The inspected project descriptions do not specify award or completion dates for those references. ([insworldwide.com](https://www.insworldwide.com/experience))
   - Company verification: International Network Systems describes submarine-system engineering and construction services and identifies a U.S. headquarters.
   - Company verification: Its Guyana project account describes design, engineering, and construction of a modular cable landing station and associated civil infrastructure for Exxon.
   - Company verification: Its portfolio lists the Suriname-Guyana submarine cable system and other Caribbean communications systems; the page does not establish recent award dates for those references.
2. Terrestrial Services | International Network Systems
   - INS offers partner-supported modular cable stations built in the United States and shipped to project locations, with site, utilities, transport, and equipment-installation services. ([insworldwide.com](https://www.insworldwide.com/terrestrial-services))
   - The catalog also lists dry-plant maintenance, supporting separate assessment of construction and continuing support responsibilities. ([insworldwide.com](https://www.insworldwide.com/terrestrial-services))

25.15. Tykoflex AB

[redacted] Tykoflex markets Seaflex as a submarine fiber joint-closure product. This establishes participation in Cable Joints and Passive Accessories, not complete-system delivery or marine restoration responsibility.

A buyer comparing Seaflex with an incumbent accessory should require documented acceptance for the particular cable and identify responsibility for supply and continuing support. [redacted] Group ownership provides relevant corporate context, but does not establish a parent-company warranty, worldwide support coverage, or the commercial terms of an individual accessory purchase.

Sources & Evidence

1. Tykoflex | Lagercrantz
   · Lagercrantz identifies Tykoflex as a group company supplying fiber-splicing products for marine transmission cables. ([lagercrantz.com](https://www.lagercrantz.com/operations/electrify/company-development-within-electrify/tykoflex/))
   · The parent identifies cable manufacturers, network owners, and network operators among its customers; this establishes reported buyer groups, not market leadership. ([lagercrantz.com](https://www.lagercrantz.com/operations/electrify/company-development-within-electrify/tykoflex/))
   · Company verification: Tykoflex supplies fiber-splicing products for marine fiber-optic transmission cables.
   · Company verification: The June 2025 company-specific material identifies Tykoflex as part of Lagercrantz Group since 2022.
2. Seaflex® - Advanced Submarine Fibre Closures | Tykoflex
   · Tykoflex markets Seaflex for submarine fiber jointing and promotes broad compatibility. ([tykoflex.com](https://tykoflex.com/products/seaflex))
   · The product page identifies Tykoflex AB in Tyresö, Sweden; promotional compatibility statements do not establish buyer-specific acceptance or complete-system responsibility. ([tykoflex.com](https://tykoflex.com/products/seaflex))
3. Member List | International Cable Protection Committee
   · Company verification: Member listed under Sweden.

25.16. PT Ketrosden Triasmitra Tbk

[redacted] The network operations center is presented as a customer contact for incident management, while MOCIS provides vessel-activity monitoring. This establishes an external managed-service proposition rather than only internal network operation, without proving a particular restoration outcome.

The corporate overview separates network commercialization through PT Jejaring Mitra Persada from maintenance and vessel operation through PT Triasmitra Multiniaga Internasional. An external operator should establish which entity contracts the service, which affiliate delivers it, and who authorizes mobilization and reports progress. [redacted]

Sources & Evidence

1. Managed Services - Triasmitra

   · Triasmitra markets preventive and corrective submarine services for its own cables and customer systems, including monitoring, maintenance, repair, and vessel coordination in Indonesia. ([triasmitra.com](https://triasmitra.com/services/managed-services))

   · The page identifies the NOC customer-contact role and MOCIS vessel-activity monitoring. ([triasmitra.com](https://triasmitra.com/services/managed-services))

   · Company verification: The managed-services page identifies PT Ketrosden Triasmitra Tbk and its Jakarta, Indonesia address.

   · Company verification: The company advertises submarine fiber-optic monitoring, maintenance, and repair services for its own cables and customer cable systems.

2. Company Overview - Triasmitra

   · Triasmitra identifies PT Ketrosden Triasmitra Tbk as its holding company and distinguishes affiliated business roles. ([triasmitra.com](https://triasmitra.com/about/company-overview))

   · PT Jejaring Mitra Persada commercializes networks; PT Triasmitra Multiniaga Internasional provides maintenance and vessel operation. These roles support verifying contracting and delivery entities separately. ([triasmitra.com](https://triasmitra.com/about/company-overview))

25.17. FiberSense Pty Ltd

[redacted] Its commercial distinction is the combination of sensing capability and continuing service assistance, rather than an equipment-only purchase. Operators comparing these approaches should specify the monitored assets, alert recipients, escalation responsibilities, and rights to monitoring information before choosing how much supervision to retain internally.

FiberSense reports implementation on Southern Cross Cable Network's New Zealand shore-end infrastructure and associated terrestrial connections. [redacted] Buyers should seek a reference matching their intended geography and service coverage rather than relying on the customer's network-wide presence.

APTelecom provides an additional commercial access channel: FiberSense appointed it to engage prospective customers in September 2024, and the firms described their continuing collaboration in April 2026. [redacted] Purchasing equipment for internal supervision remains an alternative where the operator can undertake the associated administration and incident coordination.

Sources & Evidence

1. DigitalMarine
   · DigitalMarine is marketed with event alerting, vessel-identification integration, and around-the-clock network-operations support, supporting its classification as a monitoring-service offering rather than an equipment-only purchase. ([fibersense.com](https://fibersense.com/digitalmarine/))
   · Company verification: Offers DigitalMarine as a commercial subsea-cable monitoring and protection service.
2. FiberSense and Southern Cross announce deployment of shore-end monitoring on New Zealand subsea network portion
   · FiberSense reports implementation on Southern Cross's New Zealand shore-end infrastructure and associated terrestrial connections. Further geographic rollout is described as a plan, not a completed implementation. ([fibersense.com](https://fibersense.com/news/fibersense-and-southern-cross-cable-networks/))
   · Company verification: Reports deployment of DigitalMarine monitoring on Southern Cross's New Zealand submarine shore-end infrastructure.
3. FiberSense engages APTelecom for accelerated commercial distribution of its groundbreaking DigitalMarine service
   · The September xx.xx 2024 announcement identifies FiberSense Pty Ltd and appoints APTelecom to engage prospective customers on its behalf, establishing a commercial outreach role rather than documented responsibility for operating the monitoring service. ([fibersense.com](https://fibersense.com/wp-content/uploads/2024/xx.xx/Press-release_APT_FS_Subsea.pdf))
   · Company verification: Identifies FiberSense Pty Ltd and its engagement of APTelecom for international expansion of its marine monitoring services.
4. APTelecom and FiberSense Advance Subsea Cable Monitoring Capabilities Through Strategic Collaboration
   · The April 2026 statement describes continuing collaboration through operator engagement, stakeholder access, and international market development. These are reported channel contributions, not independently established service outcomes or jurisdiction-wide delivery rights. ([aptelecom.com](https://aptelecom.com/aptelecom-and-fibersense-advance-subsea-cable-monitoring-capabilities-through-strategic-collaboration/))
   · Company verification: Confirms the continuing FiberSense-APTelecom commercial collaboration in April 2026.

25.18. VIAVI Solutions Inc.

VIAVI Solutions Inc. maintains a dedicated submarine-network portfolio spanning portable lifecycle instrumentation, optical monitoring, and associated software. Its offering includes OTDR modules, T-BERD/MTS platforms, and ONMSi remote fiber monitoring. [redacted]

ONMSi provides centralized monitoring, organizational access domains, and customer-system interfaces. NITRO Fiber Insight adds data aggregation and customizable analytics dashboards as an ONMSi extension. [redacted]

VIAVI's support portfolio includes instrument-care plans, repair and calibration services, training, and software-maintenance contracts. ■■■■■ ■■■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■■■■ ■■■■■■■■■■■ ■■■ ■■ ■■■■■■■■■ ■■■■■■■■■■■ ■■ ■■■■■■ ■■■■■ ■■■■■■■ ■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■ ■■■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■ ■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ Compared with portable instruments alone, centralized monitoring adds continuing software and administration obligations; it is less suitable where the buyer requires an externally managed incident-response service without retaining those responsibilities.

Sources & Evidence

1. Submarine Cable Networks | VIAVI Solutions Inc.
   - VIAVI's dedicated submarine portfolio lists OTDR modules, T-BERD/MTS platforms, ONMSi, and associated software. Its monitoring discussion identifies dry plant, non-amplified wet plant, and the first segment of amplified links. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/submarine-cable-networks))
   - Company verification: VIAVI Solutions Inc. maintains a specific commercial portfolio for submarine cable networks.
   - Company verification: Markets named network monitoring, fiber-management, and lifecycle instrumentation products for this application.
2. ONMSi Remote Fiber Test System (RFTS) | VIAVI Solutions Inc.
   - ONMSi is marketed as centralized remote fiber monitoring with organizational domains, customer-system interfaces, dashboards, and alarm notifications. Submarine cable networks are an identified application. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/onmsi-remote-fiber-test-system-rfts))
3. NITRO Fiber | VIAVI Solutions Inc.
   - NITRO Fiber Insight is described as an ONMSi extension providing data aggregation and customizable analytics dashboards, including integration of operator and third-party information. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products/nitro-fiber))
4. Services | VIAVI Solutions Inc.
   - VIAVI offers instrument-care plans, onsite and maintenance-center repair and calibration, product training, and software-maintenance contracts. The stated support scope concerns VIAVI equipment and software. ([viavisolutions.com](https://www.viavisolutions.com/en-us/products-and-services/services))

25.19. Telxius

Telxius supplies an operator-provided landing-service model, not merely connectivity over cables in which it participates. ■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■ ■■■■■■ ■■■■■■■ ■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■ ■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■ ■■■■■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■■■ This gives system owners a route to contracting the landward interface and continuing facility responsibility separately from submarine equipment supply.

An external customer relationship is supported by Google's July xx.xx 2025 Sol announcement, which identifies Telxius as the infrastructure partner for the planned Santander landing. Telxius separately announced the same role. ■■■■■ ■■■■■■■■■■■■■ ■■■■■■■■■ ■ ■■■■■■■■ ■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ■■■■ ■■■■■■■■■■■■■ ■■■■■■■■ ■■■■ ■■■■■■■■■ ■■■■■■ ■■■ ■■■■ ■■ ■■■

[redacted]

Telxius's published footprint identifies facilities at Virginia Beach, Fortaleza, Las Toninas, and Derio alongside third-party interconnection locations. [redacted] Neither arrangement alone establishes marine-restoration coverage.

Sources & Evidence

1. Strengthening network resilience with the Sol transatlantic cable
   · On July xx.xx 2025, Google identified Telxius as its intended infrastructure partner for Sol's Santander landing. The announcement describes a planned system and does not establish operational acceptance. ([cloud.google.com](https://cloud.google.com/blog/products/infrastructure/announcing-sol-transatlantic-cable))
2. Subsea Landing Solutions - Telxius
   · Telxius markets station planning, operation, maintenance, existing-station upgrades, use of its facilities, and project-management support as explicit landing services. ([telxius.com](https://telxius.com/en/our-solutions/infraestructura/subsea-landing-solutions/))
   · Company verification: Telxius markets subsea landing services covering cable-landing-station planning, operation, maintenance, upgrades, and project support.
   · Company verification: This is a specific commercial service offering, rather than participation inferred solely from cable ownership or bandwidth sales.
3. Telxius Has Expanded Comprehensive Landing Services to Accelerate Subsea Cable Deployments
   · Telxius's October xx.xx 2025 announcement describes terrestrial landing infrastructure, facility-development collaboration, project management, and around-the-clock operations and maintenance. It describes carrier-neutral interconnection with multiple providers; this is an offering claim, not proof of an individual customer's access rights. ([telxius.com](https://telxius.com/en/telxius-has-expanded-comprehensive-landing-services-to-accelerate-subsea-cable-deployments/))
4. Telxius Services and Infrastructure
   · The infrastructure brochure identifies Telxius facilities at Virginia Beach, Fortaleza, Las Toninas, and Derio, while separately labeling third-party locations and points of presence. The footprint therefore requires site-specific interpretation. ([telxius.com](https://telxius.com/pdf/en/Services-Brochure.pdf))
5. Google's Sol will land in Santander, powered by Telxius submarine landing services
   · Telxius's July xx.xx 2025 announcement separately confirms its planned provision of infrastructure for Google's Sol landing in Santander through its submarine landing services. ([telxius.com](https://telxius.com/en/googles-sol-will-land-in-santander-powered-by-telxius-submarine-landing-services/))

26. Companies Covered

Table 943. Global Submarine Communication Cable System Market, Companies Covered

Company
Abhar Cable
ACER (Africa) Environmental Consultants
ADVA Optical Networking SE
Alcatel Submarine Networks
Alpha Logistics Services (EPZ) Ltd
AlphaStone Contracting
ALT Telecom
Amphibia Consultants Private Limited
AMSOL
APTelecom LLC
ASEAN Cableship Pte. Ltd
Asso.subsea
Assured Communications
Atlantic Marine & Oilfield Services Limited
AVIC Baosheng Ocean Engineering Cable Co. Ltd.
Baltic Offshore
BENTOS
Blue Marine Telecom
Bridge Technologies
CA LATAM
Caldwell Marine International
Cambridge Management Consulting Limited
Cecon Contracting
CEGS Business Consultancy Services
Ciena
Cirion
Corning Incorporated
CosmosEdge Technologies Limited
CS Marineland
CSR GeoSurveys Ltd.

Table 943 - continued

Company
DC BLOX
Dive Co Pty Ltd
Dragon Geosciences
E-Marine PJSC
EGS Survey Group
Elettra Tlc
ENG RYPAC Nigeria Limited
Engineering Technology Applications Ltd.
Enviro-Consult Ltd
Environtech Consultancy Africa Ltd
ETA-Connect Limited
FEBUS Optics
FiberHome
FiberSense Pty Ltd
Fleetmarine Cable Solutions
Fugro
Fujitsu
Fígoli Consulting
Gaeaquatic Ltd
GateMarine
GeoMares S.A.S.
Geosonic
GeoTeam J.s.c.
Global Marine
Globalinx Data Centers LLC
Gold Line Shipping LTD
Great Eastern Group
GreenLink Marine
Grupo Redes S.A.
Gulf Energy Technology & Projects
Gulf Global Land & Sea Services LLC
Güralp Systems Ltd

Table 943 - continued

Company
HAPCOM SPA
Hellenic Cables
Hexatronic
HMN Technologies Co., Ltd
HMN Technologies Group Co., Ltd.
Hunan GL Technology Co., Ltd
Impresub
Incostas
Indicomm
Ingenieria Coliseum
Inkab
International Network Systems
IT International Telecom Inc.
James Fisher Subtech
Kalypso Offshore Energy
Kazakhstanskoye Agentstvo Prikladnoy Ekologii
KDDI Cableships & Subsea Engineering Inc.
Kraken Robotics Inc.
LD Armateurs
LD TravOcean
Ledcor
LiberLink
Lightera
Logan Diving & Salvage
LS Cable & System Ltd.
LS Marine Solution Co., Ltd
Lucky Joint Construction Pte Ltd
Maadi Engineering Contracting Co. (MEC)
MacDeck Nigeria Limited
MAGNOM Holding
Makai Ocean Engineering
Marine Cable Services

Table 943 - continued

Company
Marine Consolidated Consultancy
Marine Contractors & Consultants Ltd.
Marisol Qatar
Mertech Marine (Pty) Ltd
METCO MARINE
Mitsubishi Electric
Monenco Iran Consulting Engineers
Mostrello Commercial Limited
N-Sea
NahjTech
Navia Subsea Services, S.L.
NEC Corporation
Nexans
NJFX
Nokia
NTT World Engineering Marine Corporation
OCC Corporation
Ocean Infinity
Ocean Networks, Inc.
Ocean Science & Surveying Pvt. Ltd.
Ocean Specialists, Inc.
Oceanic Environmental Cables GmbH
OceanPact
Oceans & Cables Limited
OMS Group
Orange Marine
PacketLight Networks, Ltd.
Padtec Holding S.A.
Pageo Utama
PCS Italiana Srl
Pelagian Ltd
Pharos Offshore Group

Table 943 - continued

Company
Pina Underwater Services Ltd
Pioneer Consulting
Prysmian
PT Buana Inovasi Persada
PT Communication Cable Systems Indonesia Tbk
PT Ketrosden Triasmitra Tbk
PT Limin Marine & Offshore
PT Norstech Subsea Network Indonesia
R&G Telecomm Group
Remolcadores Mar del Plata
S. B. Submarine Systems Co., Ltd
Salience Consulting
SAWA Services
Seafolk Diving Contractors & Engineering Services
Seaforth Geosurveys Inc
Seaworks
Seekable
SERMACOL C.A.
Sevkabel
SGC
SM Solutions
Smart Cell
SMD
Solwake
Spellman High Voltage
Spellman High Voltage Electronics Corporation
STRACONIS
SubCom
Subsea Environmental Services BV
Sumergia, S.A.
Sumitomo Electric Industries, Ltd.
SUPERTEL

Table 943 - continued

Company
Teledyne PDM
Telxius
Temasa Marine S.L.
Tetra Tech
Tratos
Tykoflex AB
Underwater Surveys (Pty) Ltd
Veratech Engineering and Construction Company Ltd
Vertiv
VIAVI Solutions Inc.
WAMS
WFN Strategies, LLC
Xtera
Yangtze Optical Fibre and Cable Joint Stock Limited Company
ZTT

Sources & Evidence

1. Cerberus Closes $2.3 Billion Single-Asset Continuation Vehicle for SubCom
   - Company verification: The April xx.xx 2026 announcement confirms that Cerberus-managed funds retain a controlling interest in SubCom following a completed continuation-vehicle transaction.
   - Company verification: Identifies SubCom's continuing integrated business in engineering, manufacturing, installation, and maintenance of submarine fiber-optic cable systems.
2. The operational structure of the Furukawa Electric optical fiber cable business has been integrated under a new brand, Lightera, which will be launched April 1, 2025
   - Company verification: Identifies Lightera as the unified market-facing brand for Furukawa Electric's optical-fiber and cable businesses.
   - Company verification: Identifies Lightera Holding G.K., its Furukawa Electric ownership, and the Japanese, U.S., and Brazilian operating businesses.
3. Annual Securities Report
   - Company verification: Confirms implementation of the optical-fiber business reorganization on April xx.xx 2025.
   - Company verification: Confirms that OFS Fitel, LLC became Lightera, LLC and that the relevant regional businesses became subsidiaries of Lightera Holding G.K.

4. A Global Company with Local Presence
   - Company verification: Identifies Spellman High Voltage Electronics Corporation and its international operating facilities.
   - Company verification: Presents the United Kingdom operation as part of the same international Spellman business.
   - Company verification: The Spellman business includes a United Kingdom facility within its international organization.
   - Company verification: The facilities document does not establish the protected abbreviated title as an independently reportable economic participant.
5. Orange Marine modernizes its fleet of cable ships to secure digital infrastructure in Europe, Africa and the Middle East
   - Company verification: The November xx.xx 2025 announcement confirms continuing Orange Marine submarine-cable operations and investment in additional maintenance vessels.
   - Company verification: Describes an integrated fleet operating through Orange Marine and its Italian subsidiary Elettra TLC.
   - Company verification: Identifies Elettra TLC as Orange Marine's Italian subsidiary.
   - Company verification: Establishes a group-and-subsidiary reporting overlap rather than two unrelated consolidated competitors.
6. History | LS Cable & System
   - Company verification: The current corporate history records LS Cable & System's acquisition of LS Marine Solution in August 2023.
   - Company verification: Records subsequent activity involving LS Marine Solution within the LS Cable & System business history.
   - Company verification: Records LS Marine Solution's acquisition by LS Cable & System and its former KT Submarine identity.
   - Company verification: Supports a parent-and-operating-company reporting overlap with the separately staged LS Cable & System row.
7. NEC Corporation, OCC Corporation and Sumitomo Electric Industries, Ltd. complete first trial of submarine cable with multicore fiber
   - Company verification: The October xx.xx 2021 company announcement explicitly identifies OCC Corporation as an NEC subsidiary.
   - Company verification: This dated ownership statement supports a reporting-overlap assessment when combined with OCC's current stockholder disclosures.
   - Company verification: NEC identifies OCC Corporation as its subsidiary in the October xx.xx 2021 announcement.
   - Company verification: The record establishes a historical parent relationship, not independently verified current ownership percentages.
8. Prysmian led Joint Venture with Fincantieri to acquire Xtera, a leader in turnkey submarine telecom projects
   - Company verification: The December xx.xx 2025 announcement records a signed agreement for a Prysmian-led joint venture with Fincantieri to acquire Xtera Topco Limited.
   - Company verification: The announcement makes completion subject to regulatory approvals and gives an expected first-quarter 2026 completion date; it is not a closing record.
   - Company verification: Identifies Prysmian's proposed acquisition relationship with Xtera and existing submarine-telecommunications manufacturing at Nordenham.
   - Company verification: Does not establish completion of the Xtera acquisition.
9. Our History | Global Marine Group
   - Company verification: The corporate history records completion of Keppel Infrastructure Fund's acquisition of Global Marine Group in 2025.
   - Company verification: Identifies the continuing group organization and its submarine-cable business history.

10. Global Marine Group Appoints Simon Hibberd as Chief Executive Officer
    - Company verification: The July xx.xx 2026 announcement confirms continuing Global Marine Group operations following Keppel's March 2025 acquisition.
    - Company verification: Describes continuing organizational connections between Global Marine Group and SBSS without establishing their current accounting consolidation.
11. Thank You, Capt. Simon Hibberd!
    - Company verification: The July xx.xx 2026 announcement confirms continuing SBSS operations in Shanghai and activity involving subsea telecommunications projects.
    - Company verification: Describes an organizational connection with Global Marine Group but does not establish current ownership percentages.
12. Global Connectivity Matters | SBSS
    - Company verification: The current telecommunications business page markets submarine fiber-optic installation and maintenance services.
    - Company verification: Identifies established SEA-US installation work and a commercial relationship with Global Marine Group.
13. Privacy statement
    - Company verification: The current official legal statement identifies Adtran Networks SE as formerly ADVA Optical Networking SE.
    - Company verification: Establishes that the protected staged title is a former legal name, without establishing current submarine-specific sales.
14. NTT World Engineering Marine Corporation | Submarine Communications Cable Service
    - Company verification: The current English business page continues to market submarine communications cable installation, maintenance, survey, and consulting services.
    - Company verification: Its copyright identifies NTT WORLD ENGINEERING MARINE, Inc., while the page title retains the Corporation wording.
    - Company verification: The official English business page identifies NTT World Engineering Marine Corporation and presents its submarine communications cable service.
15. Submarine Cable Networks | VIAVI Solutions Inc.
    - Company verification: VIAVI Solutions Inc. maintains a specific commercial portfolio for submarine cable networks.
    - Company verification: Markets named network monitoring, fiber-management, and lifecycle instrumentation products for this application.
16. About | Kalypso-Offshore
    - Company verification: The official business profile advertises subsea cable installation, maintenance, and repair services and identifies telecommunications among its served sectors.
    - Company verification: The page uses the Kalypso Offshore business identity but does not resolve the staged entity's complete legal contracting name or delivered telecommunications projects.
17. Kraken Robotics: Transforming Subsea Intelligence - September 2025
    - Company verification: The September 2025 company presentation establishes Kraken Robotics' active subsea products and services business.
    - Company verification: Identifies telecommunications infrastructure inspection as a served-market proposition, but does not establish a specific current telecommunications-cable contract.

18. Salience and Pioneer to Develop a Pre-Feasibility Study for Antarctic Cable
- Company verification: The January xx.xx 2025 announcement identifies Pioneer Consulting as Salience Consulting's awarded collaborator for the Antarctic submarine-cable feasibility study.
- Company verification: Establishes a system-specific commercial consulting engagement rather than cable ownership or capacity resale.
- Company verification: Identifies UAE-based Salience Consulting as an awarded participant in the Antarctic submarine-cable feasibility study.
- Company verification: Describes collaboration with Pioneer Consulting on the Chilean government initiative.
- Company verification: Identifies UAE-based Salience Consulting as an awarded partner in the Chilean Antarctic submarine-cable feasibility study.

19. Alcatel Submarine Networks invests in its industrial production facilities
- Company verification: Identifies Alcatel Submarine Networks as a supplier that develops, produces, deploys, and maintains turnkey submarine transmission systems.
- Company verification: Describes European production facilities and identifies the business as majority owned by the French State Investment Agency.

20. SubCom Overview Flyer 2025
- Company verification: Identifies SubCom and describes commercial design, manufacturing, deployment, and maintenance capabilities for subsea data-transport networks.
- Company verification: Identifies its manufacturing campus in Newington, New Hampshire.

21. Submarine Cable Systems: Products & Solutions | NEC
- Company verification: NEC's current product and solutions page offers submarine cable systems and presents commercial system projects.

22. Meta, NEC, and Sumitomo Electric to Collaborate on “Petal,” the World’s First Petabit Transoceanic Submarine Cable System
- Company verification: The September xx.xx 2026 announcement identifies NEC Corporation as responsible for overall design and construction of the planned Petal submarine cable system.
- Company verification: The announced system is scheduled to commence operation in 2029; the announcement does not establish an operational cable.

23. Cordova Telecom Cooperative Announces Award of FISH in SEAK Submarine Cable System to Xtera
- Company verification: Identifies Xtera as a turnkey subsea solutions provider and announces its award of engineering and submarine cable system equipment for FISH in SEAK.
- Company verification: The system was announced for completion in late 2027, rather than represented as already operational.

24. Submarine Telecom Cable Solutions (NSW) | Prysmian
- Company verification: Prysmian offers fiber-optic submarine cables, accessories, and associated services for telecommunications networks.
- Company verification: Identifies NSW as the acquired submarine telecom business and Nordenham, Germany, as its center of excellence.

25. Subsea telecom networks - Nexans
- Company verification: Nexans markets subsea communications cables and complete installation-related services for regional and international telecommunications networks.
- Company verification: The communications offering is separately described from its power-cable activities.

26. Submarine Fiber Optic Cable Archives - ZTT
- Company verification: ZTT's current commercial catalog lists repeatered and non-repeatered submarine fiber-optic cables for communications systems.

27. Marine Network - Wuhan FiberHome International Technologies Co., Ltd.
- Company verification: FiberHome's marine-network catalog lists submarine optical cables, wet-plant products, submarine line-terminal equipment, and power-feeding equipment.
- Company verification: The catalog presents repeatered and repeaterless submarine network solutions.

28. Submarine Networks | Solutions | Hexatronic Fiber Solutions
    - Company verification: Hexatronic offers unrepeatered submarine fiber-optic cables and complete cable-system delivery including joints.
    - Company verification: The offering addresses deep-water and shallow-water communications connectivity.
29. Submarine networking - Ciena
    - Company verification: Ciena markets GeoMesh Extreme submarine networking through optical hardware, software, and professional services.
    - Company verification: Its submarine portfolio includes coherent optics, packet-optical platforms, network control, and associated services.
30. Nokia powers Surge's subsea network, boosting affordable broadband for millions in Indonesia
    - Company verification: Nokia announced deployment of its subsea optical solution for Surge's Jakarta-Singapore connection on July xx.xx 2025.
    - Company verification: The deployment uses Nokia's xx.xx Photonic Service Switch platform.
31. Nokia completes acquisition of Infinera to create innovation powerhouse in optical networks, with the scale to power the data center revolution
    - Company verification: Nokia announced completion of its acquisition of Infinera on February xx.xx 2025, supporting representation of the acquired optical portfolio within Nokia.
32. Communication Systems - Mitsubishi Electric Australia
    - Company verification: Mitsubishi Electric's Australian commercial product page identifies optical submarine cable equipment among its telecommunications offerings for carriers.
33. Submarine Fibers | Optical Communications | Corning
    - Company verification: Corning Incorporated markets a dedicated submarine optical-fiber portfolio for transoceanic and regional networks.
    - Company verification: The portfolio includes Vascade and submarine-specific SMF-xx.xx products.
34. Ultra-low loss submarine fibers Z fiber™ series | Sumitomo Electric
    - Company verification: Sumitomo Electric markets the Z fiber series and other named optical-fiber products specifically for regional and transoceanic submarine cable networks.
35. About Global Marine - Global Marine
    - Company verification: Global Marine identifies itself as part of Global Marine Group and offers installation, maintenance, and emergency repair services to the telecommunications sector.
    - Company verification: Describes worldwide operations with offices in the United Kingdom and Singapore.
36. Orange hosts the Medusa submarine cable at its infrastructure in Marseille for its first landing
    - Company verification: Identifies Orange Marine as an Orange subsidiary providing cable engineering, installation, and maintenance.
    - Company verification: Identifies Orange Marine's Sophie Germain vessel as performing Medusa cable landing operations in Marseille.
    - Company verification: Identifies Elettra Tlc as an Orange subsidiary and project coordinator for the Medusa landing operation.
    - Company verification: Identifies its cable engineering, installation, and maintenance role within the Orange group.
37. Southern Cross, ASN, and OMS Group Sign SX Tasman Express "SX-TX" Subsea Cable Supply Contract
    - Company verification: The June xx.xx 2025 joint release identifies OMS Group as a signatory to the SX Tasman Express subsea supply contract.
    - Company verification: Describes OMS Group's submarine cable installation, installation-support, marine-maintenance, and survey services.
    - Company verification: Identifies ASN as a signatory and subsea technology supplier for the Sydney-Auckland SX Tasman Express project.
38. Profile | IT International Telecom
    - Company verification: Identifies IT International Telecom Inc. as a marine network installer providing study, survey, engineering, installation, and maintenance services for submarine cable systems worldwide.

39. SBSS - Markets
    - Company verification: SBSS's telecommunications business page describes commercial submarine fiber-optic cable installation and maintenance services.
    - Company verification: Separately distinguishes telecommunications work from power, renewables, and oil-and-gas service markets.
40. Solution & Service | KDDI Cableships & Subsea Engineering Inc.
    - Company verification: KDDI Cableships & Subsea Engineering Inc. offers submarine cable installation, maintenance, and marine consulting services.
41. Fibre optic cable route surveys | Fugro
    - Company verification: Fugro offers dedicated fiber-optic cable route-survey services supporting submarine communications cable projects.
42. Fugro responds to media reports on subsea cable work in the Atlantic Ocean
    - Company verification: On September xx.xx 2026, Fugro identified SubCom as its customer for seabed surveying associated with an international subsea telecommunications cable project.
    - Company verification: The disclosure identifies project work off Argentina; it does not characterize the work as a UK-government contract.
43. Services | EGS Survey
    - Company verification: EGS markets marine survey services to the submarine telecommunications sector.
44. Services - Pioneer Consulting
    - Company verification: Pioneer Consulting offers project management, system engineering, turnkey and disaggregated system supply, permitting, procurement, and quality-assurance services for submarine system delivery.
45. Member List | International Cable Protection Committee
    - Company verification: The ICPC's current primary membership roster lists HMN Technologies Co., Ltd as a member in China; membership does not independently establish a current commercial offering.
    - Company verification: The current roster separately identifies HMN Technologies Co., Ltd.
    - Company verification: The roster separately lists HMN Technologies Group Co., Ltd. as a member in China.
    - Company verification: The current roster separately identifies HMN Technologies Group Co., Ltd.; its relationship to HMN Co. is not established by membership.
    - Company verification: The roster lists OCC Corporation as a member in Japan.
    - Company verification: The roster lists LS Marine Solution Co., Ltd as a member in Korea.
    - Company verification: The roster lists ASEAN Cableship Pte. Ltd as a member in Singapore.
    - Company verification: The roster lists E-Marine PJSC as a member in the United Arab Emirates.
    - Company verification: The roster lists Temasa Marine S.L. as a member in Spain.
    - Company verification: The roster lists Mertech Marine (Pty) Ltd as a member in South Africa.
    - Company verification: The roster lists CS Marineland as a member in Colombia.
    - Company verification: Member listed under Spain.
    - Company verification: Member listed under Sweden.
    - Company verification: Member listed under United Kingdom.
    - Company verification: Member listed under Switzerland.
    - Company verification: Member listed under The Netherlands.
    - Company verification: Member listed under Cyprus.
46. Services We Provide - Ocean Specialists, Inc.
    - Company verification: Identifies Ocean Specialists, Inc. and commercial competencies serving subsea telecommunications.
    - Company verification: Markets network development, cable-system operations and maintenance support, marine operations and program management.

47. About Ocean Specialists - Ocean Specialists, Inc.
    - Company verification: Describes Ocean Specialists' project management and supplier integration for subsea telecommunications.
    - Company verification: Discloses acquisition of Ocean Specialists, Inc. by Advanced Ocean Systems.
48. Services - WFN Strategies
    - Company verification: Identifies WFN Strategies, LLC and its Ashburn, Virginia headquarters.
    - Company verification: Markets submarine-system consulting, procurement and installation management, commissioning support and marine client representation.
49. Marine Construction Services | Caldwell Marine International
    - Company verification: Identifies Caldwell Marine International as a marine construction supplier.
    - Company verification: Explicitly describes installation and repair of submarine telecommunications cables.
50. Submarine Cable Installation Services | Caldwell Marine International
    - Company verification: Identifies a New Jersey operating base.
    - Company verification: Markets underwater fiber-optic cable installation, shore-end installation and marine route services.
51. Pipeline & Cable Routing
    - Company verification: Identifies CSR GeoSurveys Ltd. as a submarine cable-route survey supplier.
    - Company verification: Explicitly identifies telecommunications among its customer sectors and markets inspection of existing submarine cables.
52. Services - Seaforth Geosurveys Inc
    - Company verification: Identifies Seaforth Geosurveys Inc. and its current marine survey portfolio.
    - Company verification: Markets cable-route surveys and associated project-management services.
53. Seaforth Geosurveys and Arctic Research Foundation Complete Complex Marine Survey in Ungava Bay to Support Tamaani Fibre-Optic Connectivity for Inuit Communities.
    - Company verification: A November xx.xx 2025 announcement reports completed Ungava Bay survey work supporting Tamaani fiber-optic connectivity.
    - Company verification: Identifies Seaforth's work for the Kativik Regional Government in partnership with the Arctic Research Foundation.
54. PFE-HV Land-Based Power Feed Equipment | Spellman High Voltage
    - Company verification: Markets PFE-HV land-based power-feed equipment under the Spellman name.
55. Products
    - Company verification: The current product index lists marketed PFE-HV, PFE-LV, PFE-P and PFE-SB equipment families.
56. Submarine Cable Services
    - Company verification: Tetra Tech markets environmental, permitting, survey, engineering and construction-support services for submarine telecommunications cable systems.
    - Company verification: Documents a Government of Nunavut cable-system study and Hawaii inter-island fiber study experience.
57. About Us
    - Company verification: Identifies Great Eastern Group as an engineering and technology consulting business.
    - Company verification: Markets cable-route engineering, landing investigations, desktop studies and shipboard project representation.
58. Contracts
    - Company verification: Lists engagements associated with Alcatel Submarine Networks and Global Marine cable systems, including MARS and ARCOS.
    - Company verification: The inspected references do not provide dates sufficient to establish recent contract activity.

59. Requests for Proposals | Connect Kākou
    - Company verification: The University of Hawaii identifies Ocean Networks as the awardee of its 2022 inter-island submarine-cable desktop study.
    - Company verification: Records a May xx.xx 2022 award for cable-landing-site survey work.
60. Caribbean Express Panama partnership announcement
    - Company verification: Describes Ocean Networks as an Atlanta-based, privately held telecommunications development and services company.
    - Company verification: Identifies submarine-system development for external customer groups and its Submarine Cable Salvage subsidiary.
61. Assured Communications - About Us
    - Company verification: Assured Communications identifies its infrastructure services across subsea, terrestrial and satellite telecommunications networks.
    - Company verification: Describes project-building, advisory and operating service roles.
62. Assured Communications - Contact Us
    - Company verification: Identifies Assured Communications' office in Vint Hill, Virginia.
63. Assured Communications - Experience
    - Company verification: Lists a Quinault Indian Nation cable-landing and backhaul engagement in Washington State.
    - Company verification: Lists Government of Bermuda work within the subsea experience portfolio without a dated detailed scope.
64. Ledcor Marine Services
    - Company verification: Documents Ledcor's turnkey broadband submarine-cable work connecting British Columbia communities.
    - Company verification: Describes cable procurement, marine installation and Newfoundland cable-landing-station construction among its commercial services.
65. SM Solutions - Instalación y Mantenimiento de Cables Submarinos
    - Company verification: SM Solutions markets engineering, installation and maintenance of submarine fiber-optic cables.
    - Company verification: Advertises turnkey connectivity projects for islands, platforms and maritime terminals; a legal seller is not identified in the inspected service page.
66. Proyectos | Ingenieria Coliseum
    - Company verification: Ingenieria Coliseum's project portfolio identifies installation of a power-and-fiber submarine cable between Cancún and Isla Mujeres.
    - Company verification: The portfolio does not establish a separate telecommunications contracting scope or project date.
67. What we do - Ocean Infinity
    - Company verification: Ocean Infinity markets pre-installation surveys and infrastructure inspections for the global subsea telecommunications cable network.
68. Cable Landing Stations - DC BLOX
    - Company verification: DC BLOX markets purpose-built, carrier-neutral subsea cable-landing facilities in the southeastern United States.
    - Company verification: Distinguishes its existing Myrtle Beach facility from Palm Coast, whose expected opening is the first quarter of 2027.
69. MakaiPlan - Makai Ocean Engineering
    - Company verification: Makai markets MakaiPlan as dedicated submarine-cable route-planning software.
    - Company verification: Identifies a related commercial software portfolio including MakaiPlan Pro and MakaiLay.

70. Subsea Ocean Fiber Solutions - Lightera
    - Company verification: Lightera's own current portfolio markets ocean fiber for submarine communications networks.
    - Company verification: Identifies U.S. development and manufacturing teams and the TeraWave ocean-fiber portfolio.
71. Lightera Announces Major Capital Investment to Expand Submarine Optical Fiber Manufacturing
    - Company verification: Announces investment in expansion of submarine optical-fiber manufacturing.
    - Company verification: Identifies Norcross, Georgia and Sturbridge, Massachusetts among Lightera's submarine-fiber manufacturing locations; announced expansion is not treated as completed capacity.
72. Comunicado ao Mercado: Padtec conclui a aquisição da LEV Brasil
    - Company verification: The disclosure identifies Padtec Holding S.A. as the acquiring company.
    - Company verification: Padtec completed acquisition of xx.xx% of the LEV Brasil businesses on July xx.xx 2026.
    - Company verification: The acquired businesses were integrated into Padtec Marine Networks, supporting submarine infrastructure projects in Brazil and Latin America.
73. Padtec concludes acquisition process of LEV Brasil
    - Company verification: Padtec's English-language announcement confirms completion of the LEV Brasil acquisition.
    - Company verification: It describes Padtec Marine Networks as a business unit focused on development and implementation of submarine and river infrastructure projects.
74. Sobre - ZMAX Group
    - Company verification: ZMAX Group identifies Blue Marine Telecom as a group business dedicated to submarine cables and optical fiber.
    - Company verification: The parent describes Brazilian coastal optical-cable installation and maintenance activity and names telecommunications customers; these are group-level statements, not independently allocated subsidiary contracts.
75. Empresa de geofísica marinha: levantamento geofísico no Brasil
    - Company verification: WAMS identifies a Rio de Janeiro base and operations across Brazil.
    - Company verification: Its business page advertises marine survey services for submarine-cable routes and pre- and post-installation work.
76. Levantamento de Rota para Cabos Submarinos e Inspeção com ROV | WAMS
    - Company verification: WAMS publishes a dedicated submarine-cable service offering covering route surveys, landfall-area surveys, and cable inspection.
    - Company verification: The page supports cable-sector service participation but does not by itself establish a named telecommunications-cable contract.
77. Bentos Services
    - Company verification: BENTOS's current service catalog advertises cable feasibility studies, desktop studies, route surveys, laying logistics, and repairs.
78. CV BENTOS Cables Submarinos (Enero 2017)-ing
    - Company verification: The January 2017 portfolio identifies BENTOS as a Chilean marine-services company working with communications and power submarine cables.
    - Company verification: It documents communications-cable project participation for Telefónica del Sur's Fibra Austral system; these references are historical, not current award announcements.
79. HAPCOM SPA Infraestructura de telecomunicaciones en Chile
    - Company verification: HAPCOM describes Chilean telecommunications infrastructure services.
    - Company verification: Its Curie project account identifies SubCom as the customer for local cable-landfall civil and logistical work at Playa Las Torpederas, Valparaíso.
    - Company verification: The company also describes installation and maintenance of fiber connections toward cable landing stations.

80. Infraestructura de telecomunicaciones | LiberLink
    - Company verification: LiberLink identifies itself as an Argentine telecommunications contractor.
    - Company verification: Its Las Toninas project account describes network-equipment, power, and link-migration work for NEC and Telxius at the submarine-cable landing station.
81. TRABAJOS REALIZADOS - Remolcadores Mar del Plata
    - Company verification: Remolcadores Mar del Plata identifies an Argentine operating address.
    - Company verification: Its completed-work portfolio lists maritime guard/support during installation of the Malbec and Tannat submarine cables; it does not establish principal cable-installation responsibility.
82. Proyectos de Hidrografía, Oceanografía y Geofísica Marina, Cables Submarinos.
    - Company verification: The company identifies itself as GeoMares S.A.S. and lists offices in Bogotá and Cartagena, Colombia.
    - Company verification: Its business catalog advertises shallow-water submarine-cable installation and marine survey services.
83. Proyectos | Geomares
    - Company verification: GeoMares's project portfolio lists installation, survey, or protection assignments for SAC, Globenet, PCCS, and AMX communications systems in Colombia.
    - Company verification: It also lists PCCS survey and installation-positioning work in Balboa, Panama.
    - Company verification: Named customer and contractor references include Level xx.xx Communications, Globenet, Telefónica Colombia, Alcatel-Lucent, EGS Survey, and Underwater Technical Services Limited; project dates are not established by the page.
84. SERMACOL C.A.
    - Company verification: SERMACOL C.A. explicitly advertises installation of submarine communications cables as well as power cables.
    - Company verification: The company identifies its operating base in Ciudad Ojeda, Zulia, Venezuela, and describes regional experience in Venezuela and Colombia.
85. Grupo Redes S.A. | Fibra Óptica y Planta Externa
    - Company verification: Grupo Redes S.A. identifies itself as a Panamanian telecommunications contractor.
    - Company verification: Its specific submarine-fiber offering includes landfall works, beach-man-hole construction, and connections to cable landing stations.
86. Dredging Support | Veratech
    - Company verification: Veratech's official service page identifies its head office in Port of Spain, Trinidad.
    - Company verification: The inspected offering concerns dredging support and marine logistics, not independently established telecommunications-cable services.
87. Heritage Petroleum Company Limited - Award of Contracts, January 1-May 15, 2026
    - Company verification: Heritage Petroleum's public award list names Veratech as a marine-construction supplier with an award dated May xx.xx 2026.
    - Company verification: The award corroborates current marine business activity but does not establish a telecommunications-cable contract.
88. Experience | International Network Systems
    - Company verification: International Network Systems describes submarine-system engineering and construction services and identifies a U.S. headquarters.
    - Company verification: Its Guyana project account describes design, engineering, and construction of a modular cable landing station and associated civil infrastructure for Exxon.
    - Company verification: Its portfolio lists the Suriname-Guyana submarine cable system and other Caribbean communications systems; the page does not establish recent award dates for those references.
89. Submarine Cable Surveys - Seaforth Geosurveys Inc
    - Company verification: Seaforth Geosurveys Inc publishes a dedicated telecommunications fiber-optic cable-survey offering.
    - Company verification: Its catalog describes survey support for cable-system development and maintenance; a current assigned-region contract is not established by the inspected material.

90. CS Marineland - Marine Survey & Submarine Cable
    - Company verification: CS Marineland identifies its operating company as Construcciones y Servicios Marineland S.A.S., based in Cartagena, Colombia.
    - Company verification: Its current business catalog advertises marine surveys and turnkey submarine telecommunications cable services across Latin America and the Caribbean.
    - Company verification: The offering includes route engineering, project supervision, installation, and shore-end services; company-reported licensing was not independently checked.
91. Hellenic Cables - CENERGY HOLDINGS
    - Company verification: Hellenic Cables manufactures submarine optical-fiber cables for repeaterless applications.
    - Company verification: The company-specific business page identifies cable manufacturing operations in Greece and Romania.
92. Cable laying & maintenance - LD Armateurs
    - Company verification: LD Armateurs represents LD TravOcean's fiber-optic submarine cable installation and protection activities.
    - Company verification: The offering includes route selection, installation, maintenance, and repair of submarine links.
    - Company verification: Presents LD TravOcean within the group's submarine-cable installation and lifecycle portfolio.
    - Company verification: Describes fiber-optic submarine-cable installation, protection, maintenance, and repair.
    - Company verification: Records LD TravOcean's acquisition by the LDA group.
93. LD Armateurs accueille InfraVia comme actionnaire majoritaire et Samira Draoua comme CEO - LD Armateurs
    - Company verification: The July xx.xx 2025 announcement establishes InfraVia majority ownership and continuing Louis-Dreyfus family minority ownership.
    - Company verification: The announcement identifies the current LD Armateurs name.
94. About - Asso.subsea
    - Company verification: Asso.subsea provides submarine cable installation, protection, repair, and support services.
    - Company verification: Its company profile identifies telecommunications customers and a Greece-based operating organization.
95. December 2024 - CELEBRATING OUR 100TH PLOUGH - SMD
    - Company verification: SMD's December 2024 business announcement documents commercial sales of subsea cable-burial equipment.
    - Company verification: The equipment's publicly identified applications include telecommunications cables.
96. SA - однобронный подводный кабель (ОКПС)
    - Company verification: The official catalog offers submarine optical cable for marine communications lines.
    - Company verification: The catalog identifies the seller as ООО Inkab, observed in Russian as ООО «Инкаб».
97. About - Baltic Offshore
    - Company verification: Baltic Offshore describes its formation as an independent private company in 2006.
    - Company verification: The Swedish company documents submarine cable operations and telecom-network installation heritage.
98. Key markets - Cecon Contracting
    - Company verification: Cecon Contracting identifies power and telecommunications as commercial markets.
    - Company verification: Its disclosed telecommunications projects include submarine fiber-optic cable installation and trenching.
99. Tampnet partners with Nexans and Cecon for their new Norfest system
    - Company verification: The operator's Norfest announcement identifies Cecon Contracting as a submarine fiber-optic system project partner.

100. Tykoflex | Lagercrantz
    - Company verification: Tykoflex supplies fiber-splicing products for marine fiber-optic transmission cables.
    - Company verification: The June 2025 company-specific material identifies Tykoflex as part of Lagercrantz Group since 2022.
101. Telecoms Subsea Cable Market - ETA Ltd
    - Company verification: ETA offers project management, engineering consultancy, planning, and technical studies for submarine telecommunications cable projects.
    - Company verification: The page identifies Engineering Technology Applications Ltd. and documents purchaser-representation and installation-management roles.
102. ETA-CONNECT LIMITED overview - Find and update company information - GOV.UK
    - Company verification: The official registry identifies ETA-CONNECT LIMITED as an active UK private limited company.
    - Company verification: The registry establishes identity and legal status, not submarine-market participation or its relationship to ETA.
103. Submarine Cable Installation
    - Company verification: Oceans & Cables Limited identifies itself as a Maltese company providing submarine cable installation and related ocean services.
    - Company verification: Its business description includes serving the telecommunications industry.
104. Submarine Cable Installation - Oceans & Cables
    - Company verification: Oceans & Cables maintains a specific commercial submarine cable installation service offering.
105. PRYSMIAN CLOSES THE ACQUISITION OF ACSM | Prysmian
    - Company verification: Prysmian completed its ACSM acquisition on February xx.xx 2026.
    - Company verification: The announcement states that ACSM would be fully consolidated into Prysmian's financial reporting from February 2026.
106. Power Feed Equipment (PFE)
    - Company verification: Spellman offers land-based, shipborne, and portable power-feed equipment for submarine fiber-optic cable repeaters.
    - Company verification: The commercial applications include telecommunications shore stations and cable installation and repair operations.
    - Company verification: The shared Spellman branded portfolio offers submarine telecommunications power-feed equipment; this does not establish a separate economic supplier.
    - Company verification: The shared Spellman branded portfolio offers submarine telecommunications power-feed equipment; separate legal-seller attribution remains unresolved.
107. Türkiye’s Leading Subsea Cable Engineering Company | GateMarine
    - Company verification: The official company profile identifies GateMarine as a Türkiye-based subsea-cable engineering business established in 2006.
    - Company verification: The profile describes the business's origins in the maritime, subsea and telecommunications industries.
108. Subsea Cable Installation Services | GateMarine
    - Company verification: GateMarine publishes a dedicated commercial service page for subsea-cable installation.
109. References - Pina Underwater Services Ltd
    - Company verification: Pina's official references record Bosphorus submarine fiber-optic preventive maintenance for TurkNet in March 2026.
    - Company verification: The portfolio records submarine-cable crossing installations for Exa Infrastructure Turkey in February 2026.

110. Geosonic | Subsea Cables & Interconnectors
    - Company verification: Geosonic explicitly offers survey and positioning support for subsea telecommunications cables and power interconnectors.
    - Company verification: The inspected sector page identifies the company's headquarters in Sharjah, United Arab Emirates.
111. E-marine
    - Company verification: E-Marine's specific service page describes submarine-cable installation, maintenance, repair, route-survey and cable-support services.
    - Company verification: The page identifies cable depots in the UAE and at Salalah, Oman, and a commercial focus including the Gulf and Red Sea.
112. Smart Cell
    - Company verification: Smart Cell's official portfolio describes its infrastructure-preparation and cable-pulling-management role in the Coral Bridge submarine-cable landing at Aqaba.
    - Company verification: The business page identifies a Jordanian presence in Amman.
113. Ultra Long Haul Optical Transport for a Leading Service Provider in ASEAN Region
    - Company verification: The 2025 company case study identifies PacketLight Networks, Ltd. and its Tel Aviv, Israel address.
    - Company verification: It describes PacketLight optical-transport equipment supplied for a Singapore-Indonesia network incorporating terrestrial and submarine segments.
114. Experience and Past Projects
    - Company verification: Gold Line Shipping LTD's own portfolio records support for the BLUE fiber-optic cable survey connecting Israel and Europe.
    - Company verification: It records approval coordination, vessel-operation coordination and cable logistics for Israel-Europe fiber-optic cable-laying projects.
115. Projects | Telecom, ELV & Cabling - AlphaStone UAE
    - Company verification: AlphaStone's official project portfolio records an STC submarine-cable landfall assignment in Bahrain.
    - Company verification: The described scope includes the land-fiber connection between the beach manhole and STC's building.
    - Company verification: The page identifies the business as a UAE-serving telecom, ELV and electrical contractor.
116. PCS ITALIANA SRL - Submarine Cables & Umbilical Laying, Maintenance and Repair Service - Reference List
    - Company verification: PCS Italiana Srl's official reference list identifies its submarine-cable service business.
    - Company verification: A 2016 reference records cooperation with affiliated PCS Cables LLC on standalone fiber-optic submarine cables at Qatar's North Field.
117. Shore Ends Installation 2016 - BBG Fujairah project (fibre optic cable)
    - Company verification: The Louis Dreyfus/TravOcean project document identifies TRAVOCEAN Middle East as an Alcatel Lucent contractor for the BBG fiber-optic cable shore end at Fujairah.
    - Company verification: The documented assignment occurred in December 2015-January 2016 and concerns landing-support and cable-protection services.
118. Marine Consolidated Consultancy (MCC)
    - Company verification: Marine Consolidated Consultancy's inspected business profile advertises submarine-cable engineering.
    - Company verification: The profile identifies an Abu Dhabi base and a regional office in Qatar.
    - Company verification: The inspected description does not resolve telecommunications versus power-cable applications.

119. ::Marisol Qatar::
    - Company verification: Marisol Qatar's commercial-diving service page explicitly advertises submarine-cable burial.
    - Company verification: The inspected service description does not specify a telecommunications-cable application.
120. Marine services brochure 2024
    - Company verification: The SOHAR marine-services brochure lists Gulf Global Land & Sea Services LLC as an Omani marine-service provider.
    - Company verification: The roster supports the observed English identity and marine-service presence, not a submarine-communications offering.
121. Realization of a Telecommunication Architecture Study throughout the PAEW Service Area
    - Company verification: The ITU project record identifies Monenco Iran Consulting Engineers as an Iran-based business-sector organization.
    - Company verification: It records telecommunications-architecture consultancy for Oman's Public Authority for Electricity and Water in a project dated 2011-2014.
    - Company verification: This record does not establish current submarine-cable services.
122. Services | Bridge Technologies | Submarine Networks
    - Company verification: Bridge Technologies publicly offers submarine-network deployment, integration, project management, logistics, and operation and maintenance services across the Middle East and Africa.
    - Company verification: Its service catalog identifies experience supporting named submarine systems, including 2Africa, Africa-xx.xx SEACOM, and other international networks.
123. Contact Us | Bridge Technologies | Submarine Networks
    - Company verification: The company's official contact page identifies Bridge Technologies and a business address in Heliopolis, Cairo, Egypt.
124. Straconis: Entreprise de Télécommunications
    - Company verification: STRACONIS describes Moroccan telecommunications services and a dedicated submarine fiber-optic cable landing-support offering.
    - Company verification: The offering concerns shore-to-terminal infrastructure and integration support; it does not establish wet-plant manufacturing or turnkey ocean-system supply.
125. Our Projects - Atlantic Marine & Oilfield Services Limited
    - Company verification: The official project register identifies Atlantic Marine & Oilfield Services Limited and a Lagos headquarters with regional offices in Ghana.
    - Company verification: The register documents historical submarine optical-fiber survey and installation work for Zain Nigeria in 2009 and submarine-cable repair and installation work for Airtel Nigeria in 2013.
126. CosmosEdge Technologies Limited | Nigeria's Sovereign Digital Backbone
    - Company verification: The company's detailed public service catalog identifies CosmosEdge Technologies Limited as a Nigerian ICT infrastructure business.
    - Company verification: It advertises submarine fiber-cable installation and maintenance services; the page alone does not corroborate completed projects, asset ownership, or ultimate shareholders.
127. Marine Construction | MAGNOM Holding
    - Company verification: MAGNOM's marine-construction page describes a privately owned marine infrastructure business headquartered in Sokhna, Egypt.
    - Company verification: The business states that it serves submarine-cable projects, but the page does not distinguish communications cables from electricity-transmission cables.
128. Currents - August 2023
    - Company verification: AMSOL's August 2023 newsletter describes its vessel's support to a fiber-optic communications-cable route-clearance project near Yzerfontein, South Africa.
    - Company verification: The newsletter also describes AMSOL personnel supporting Orange Marine's cable-repair vessel Leon Thevenin.

129. Brief Introduction to Underwater Surveys (Pty) Ltd
- Company verification: The company presentation identifies Underwater Surveys (Pty) Ltd and historical offices in Cape Town, Nelspruit, and Walvis Bay.
- Company verification: Its commercial service portfolio includes cable-route surveys; the presentation does not independently identify a telecommunications-specific customer or project.

130. Services - Underwater Surveys
- Company verification: Underwater Surveys' inspected service catalog offers cable-route surveys, coastal mapping, and offshore hydrographic survey services.
- Company verification: The catalog does not resolve whether its cable work includes communications systems rather than other offshore cable applications.

131. James Fisher Subtech Group Limited overview - Companies House
- Company verification: The official UK register identifies the active legal company James Fisher Subtech Group Limited.
- Company verification: This establishes a related named legal identity, not the current mapping of the James Fisher Subtech operating brand to individual African contracting businesses.

132. Civil Engineering - May 2013
- Company verification: The May 2013 institutional publication describes Subtech Group's marine services in sub-Saharan Africa and historical fiber-optic cable landing work around the southern African coast.
- Company verification: The record is historical and does not establish the current allocation of those activities among James Fisher Subtech's operating entities.

133. MARS Mauritius-Rodrigues Submarine Cable - Chapter 1, June 2018
- Company verification: The government-hosted June 2018 MARS project assessment identifies Enviro-Consult Ltd as environmental engineer for the Mauritius-Rodrigues submarine fiber-optic cable project.
- Company verification: This establishes a historical system-delivery consulting role, not a current marine installation offering or a current contract award.

134. Our Services - Mertech Marine
- Company verification: Mertech Marine's inspected commercial catalog offers shore-end services, cable logistics, cable depots, and route clearance in addition to retired-cable recovery and recycling.
- Company verification: The catalog supports a broader submarine telecommunications lifecycle-service role, but does not establish recent active-system contracts or the revenue split between services and recycling.

135. LS Cable & System and LS Marine Solution jointly participate in Korea-Japan Submarine Communication Network Building Project led by MS and Amazon
- Company verification: The June xx.xx 2025 announcement identifies LS Cable & System as the engineering, procurement, and construction lead for the JAKO submarine communications project.
- Company verification: The page identifies the company as LS Cable & System Ltd. and places its business address in South Korea.
- Company verification: The announced project completion is scheduled for 2027, rather than established as operational.
- Company verification: The announcement identifies LS Marine Solution as the submarine cable-laying contractor for JAKO, distinct from LS Cable & System's overall EPC role.

136. Submarine Fibre-optic Cable Series-YOFC | Smart Link Better Life
- Company verification: YOFC's current commercial catalog lists repeatered and unrepeatered submarine optical-fiber cables for underwater communications networks.
- Company verification: The official site identifies Yangtze Optical Fibre and Cable Joint Stock Limited Company.

137. YOFC's First Long-Length Submarine Optical Fibre Cable Delivered to Overseas Customer-YOFC | Smart Link Better Life
    - Company verification: The January xx.xx 2021 disclosure identifies YOFC's submarine-cable joint venture with Baosheng and describes an overseas submarine optical-fiber cable delivery associated with YOFC.
    - Company verification: The disclosure names AVIC Baosheng Ocean Engineering Cable Co. Ltd. as the joint-venture company delivering submarine optical-fiber cable.
    - Company verification: It describes the venture's commercial portfolio as including submarine optical-fiber cables and related engineering and installation services; this is historical business evidence.
138. China Factory Supply Indoor Drop Cable Manufacturer - Submarine Optical Fiber Cable - GL Technology Manufacturer and Supplier | GL Technology
    - Company verification: The GL Technology-branded commercial catalog lists a submarine optical-fiber cable.
    - Company verification: The catalog supplies a Changsha, Hunan, China contact address; it does not fully resolve the legal seller corresponding to the observed Hunan GL Technology name.
139. Triasmitra
    - Company verification: The managed-services page identifies PT Ketrosden Triasmitra Tbk and its Jakarta, Indonesia address.
    - Company verification: The company advertises submarine fiber-optic monitoring, maintenance, and repair services for its own cables and customer cable systems.
140. PT. Buana Inovasi Persada
    - Company verification: The inspected single-page business catalog identifies PT Buana Inovasi Persada as an Indonesian provider of terrestrial and submarine fiber-optic infrastructure installation and maintenance.
    - Company verification: The catalog advertises submarine cable repair services and dedicated joint-closure offerings and identifies Indonesian operating locations.
141. Installation & Maintenance of Subsea Cable | PT. Norstech Subsea Network Indonesia
    - Company verification: The specific service page advertises installation and maintenance of subsea cables under PT Norstech Subsea Network Indonesia.
    - Company verification: The company's inspected service catalog also lists shore-end works, engineering, permitting, and project-support services.
142. Solwake | Home
    - Company verification: Solwake's inspected business catalog explicitly advertises submarine telecommunications installation and maintenance across Asia-Pacific.
    - Company verification: The catalog lists cable-system repair and maintenance and displays the Prima Nusantara X and Navalink Polaris fleet names.
    - Company verification: The page also references Prima Navalink; the legal contracting and ownership relationships are not established by this catalog alone.
143. Cableships of the World
    - Company verification: The published association fleet directory lists PT Limin Marine & Offshore as Wave Venture's owner/operator, with an installation/repair role and Jakarta base.
    - Company verification: This directory provides a qualified identity and commercial-role path, not definitive confirmation of current vessel ownership.
144. Submarine Cable Installation Australia | Dive Co
    - Company verification: The specific commercial service page identifies Dive Co Pty Ltd and its Australian business registration number.
    - Company verification: Dive Co advertises Australian submarine telecommunications installation, shore-end, maintenance, and repair support and names communications-system project references.
145. Seaworks
    - Company verification: Seaworks' submarine-cables business page advertises installation, monitoring, maintenance, and repair for New Zealand and Pacific clients.
    - Company verification: The page identifies work associated with Southern Cross, Southern Cross NEXT, Hawaiki, and Tasman Global Access communications cables and gives a Wellington address.

146. Ocean Science & Surveying Pvt. Ltd. | Offshore Survey Experts
    - Company verification: The inspected single-page business catalog identifies Ocean Science & Surveying Pvt. Ltd. as an India-based marine survey business.
    - Company verification: Its commercial catalog lists submarine cable route surveys and a submarine telecommunications cable-landing survey reference at Barka, Oman.
147. Amphibia - Advanced Marine Survey & Consultancy
    - Company verification: The inspected company and service catalog identifies Amphibia Consultants Private Limited as headquartered in Navi Mumbai, India.
    - Company verification: It advertises cable-route survey services and lists fiber-optic communications-project references including Raman, CANI, and IAX/IEX.
148. Marine Cable Installation, Repair & Surveys - Underwater Cable Services in India | Seafolk
    - Company verification: The specific service page identifies Seafolk Diving Contractors & Engineering Services as based in Jamnagar, Gujarat, India.
    - Company verification: It expressly advertises subsea telecommunications cable installation alongside cable repair, replacement, and survey services.
149. FOA Corporate Program Participants
    - Company verification: The noncommercial association participant entry identifies Lucky Joint Construction Pte Ltd in Singapore.
    - Company verification: Its listed business capabilities include submarine cable landing and installation and telecommunications-network project management and maintenance.
150. Who we are - fmcsglobal.com
    - Company verification: The official profile identifies the Fleetmarine Cable Solutions business and a Philippine address.
    - Company verification: It advertises submarine cable survey, shore-end, rerouting, maintenance, and installation-support services.
    - Company verification: The profile states Philippine incorporation in October 2013; the complete current registered name remains to be confirmed.
151. www.cegsphil.com - Services
    - Company verification: The business track record describes CEGS's permitting, shore-end civil, survey-representation, and project-support work associated with Philippine submarine communications projects.
    - Company verification: The page supplies named historical commercial relationships with NTT's marine business and Fleetmarine Cable Solutions.
    - Company verification: The track record identifies Fleet Marine/Fleetmarine Cable Solutions as a client for cable-ship survey and cable-protection support, corroborating a historical commercial relationship.
152. LGU Permitting and ECC permitting Support - CEGSMARINE CONSTRUCTION
    - Company verification: The specific CEGSMARINE project page documents permitting support associated with eRDL45 and PLDT Domestic Submarine Cable Project Area xx.xx.
    - Company verification: This establishes a communications-project service reference for the observed CEGS business; registered-entity reconciliation remains open.
153. TELECOMMUNICATIONS - SGC
    - Company verification: SGC's specific telecommunications business page advertises submarine cable supply and installation through international partners for Philippine requirements.
    - Company verification: The page uses both SGC and SGMI references, leaving the full legal and reporting identity unresolved.
154. Industry Insight | Submarine Cable Route Survey & Monitoring Services
    - Company verification: Dragon Geosciences' July xx.xx 2025 business disclosure advertises submarine cable route-survey, inspection, and monitoring services in Taiwan and surrounding waters.
    - Company verification: The page does not adequately establish whether the disclosed cable work includes telecommunications rather than only power infrastructure.

155. TRATOS SUBMARINE® - OPTICAL FIBER
    - Company verification: Markets TRATOS SUBMARINE optical-fiber cables for standalone underwater communications links and submarine optical networks.
156. TRATOS - Company Profile
    - Company verification: Documents the Tratos business and underwater optical-cable supply for industrial connectivity projects.
157. FiberSense and APTelecom partnership announcement, September 3, 2024
    - Company verification: Identifies FiberSense Pty Ltd and its engagement of APTelecom for international expansion of its marine monitoring services.
    - Company verification: Identifies APTelecom LLC and its sales, advisory, and project-management relationship with FiberSense.
158. DigitalMarine - FiberSense
    - Company verification: Offers DigitalMarine as a commercial subsea-cable monitoring and protection service.
159. FiberSense and Southern Cross announce deployment of shore-end monitoring on New Zealand subsea network portion
    - Company verification: Reports deployment of DigitalMarine monitoring on Southern Cross's New Zealand submarine shore-end infrastructure.
160. APTelecom and FiberSense Advance Subsea Cable Monitoring Capabilities Through Strategic Collaboration
    - Company verification: Describes current subsea-project advisory and commercial market-access work with FiberSense.
    - Company verification: Confirms the continuing FiberSense-APTelecom commercial collaboration in April 2026.
161. GETP - Submarine Services
    - Company verification: Advertises submarine telecommunications maintenance, depot, jointing, and related cable services under Gulf Energy Technology & Projects.
162. GETP - About
    - Company verification: Places the GETP corporate group in Qatar and identifies its subsidiary-based business structure.
163. Indicomm - Deploying Global Submarine Telecommunications Networks
    - Company verification: The dedicated Submarine Networks catalog section advertises terminal installation, commissioning, marine jointing, maintenance, repair, and project-support services.
164. Joint design adapted to fulfil new cable challenge
    - Company verification: Identifies Güralp Systems Ltd as a participant in delivery of the INGV SMART-cable demonstrator deployed in December 2023.
165. Connecting the unconnected: From Antarctica to the finish line
    - Company verification: Reports continuing Salience project-analysis and stakeholder work associated with the Antarctic cable study in 2026.
166. Earthquake detection with optic fiber - Instituto Geográfico Nacional
    - Company verification: A Spanish government record identifies FEBUS equipment used in a scientific sensing project on an ISLALINK submarine fiber cable in 2020.
167. BMKG Perkuat Monitoring Geofisika Melalui Teknologi DAS Hasil Kolaborasi Internasional dengan Prancis
    - Company verification: An April 2026 Indonesian government publication identifies FEBUS Optics participation in the submarine-cable sensing ecosystem.
168. Раздел охрана окружающей среды
    - Company verification: Names ТОО «Казахстанское Агентство Прикладной Экологии» and a project-related contract with HMN for environmental documentation of the Azerbaijan-Kazakhstan cable system.
    - Company verification: Identifies HMN Technologies Co. Ltd. as the cable-system general designer and turnkey supplier.

169. Программа управления отходами на 2026 год - Азербайджано-Казахстанская морская кабельная система
    - Company verification: States that HMN Technologies Co. Ltd. was selected in March 2025 as turnkey supplier for the Azerbaijan-Kazakhstan Sea Cable System.
170. Company Profile | About OCC | OCC Corporation
    - Company verification: Identifies OCC Corporation and its manufacturing and marketing of submarine optical cable.
    - Company verification: Lists NEC Corporation and Sumitomo Electric Industries, Ltd. as main stockholders.
171. Submarine Cable | Products | OCC Corporation
    - Company verification: Provides a dedicated current submarine optical-cable offering under OCC Corporation.
172. Notice Concerning Change of Company Name
    - Company verification: Announces NTT WORLD ENGINEERING MARINE, Inc. as the planned corporate name effective October xx.xx 2025.
173. Actos de BARCELONA del BORME núm. 64 de 2026
    - Company verification: The official company gazette identifies NAVIA SUBSEA SERVICES S.L. and records Navia Ocean Group Limited as its new sole shareholder.
174. MAADI ENGINEERING CONTRACTING CO. - Plumettaz Distributors
    - Company verification: An independent manufacturer's distributor record identifies Maadi Engineering Contracting Co. in Cairo, Egypt.
175. Digital Infrastructure Consulting | CA LATAM
    - Company verification: Advertises submarine-cable feasibility, project structuring, and owner's-engineer services.
    - Company verification: Describes CA LATAM's own local-counterpart role in the Salience-Pioneer Antarctic cable study, separately from its founder's earlier government experience.
176. Teledyne PDM
    - Company verification: Lists submarine communication cable assemblies among its projects and states that its engineered solutions serve Egypt and other international locations.
177. Abhar Cable - Powering the Future
    - Company verification: The inspected company catalog establishes Abhar Cable's business identity and submarine power-cable portfolio, but not submarine communications-cable manufacture.
178. Half Year Financial Report at June 30, 2026
    - Company verification: The half-year report's 2026 outlook includes an Xtera acquisition assumption, but does not provide an Xtera closing date.
    - Company verification: The reported consolidation changes through June xx.xx 2026 identify ACSM and Alesea acquisitions; this is not definitive evidence of Xtera's acquisition status on October xx.xx 2026.
    - Company verification: Prysmian's half-year financial report confirms ACSM's February xx.xx 2026 acquisition and includes Norddeutsche Seekabelwerke in its consolidated company schedule.
    - Company verification: Its outlook incorporates the Xtera acquisition, without establishing a completed closing date.
179. XTERA TOPCO LIMITED overview - Find and update company information - GOV.UK
    - Company verification: The official registry lists Xtera Topco Limited, company number xx.xx as an active UK private limited company.
    - Company verification: This establishes the acquisition target's legal status, not completion of the proposed Prysmian-Fincantieri transaction.
180. XTERA TOPCO LIMITED persons with significant control - Find and update company information - GOV.UK
    - Company verification: The registry's active significant-control statement does not identify a registrable controlling person or relevant legal entity.
    - Company verification: The record does not resolve current control or establish acquisition completion.

181. Tusass A/S and Geoteam J.s.c. Join Forces for Marine Route Survey in Greenlandic Arctic Waters
    - Company verification: The August xx.xx 2023 report identifies GeoTeam J.s.c. as Tusass's selected contractor for the TC1 marine route survey in Greenlandic waters.
    - Company verification: The dated buyer account describes the contractor as Rome-based; it does not establish current registration, ownership, or continuing operations.
182. Tusass er klar til at igangsætte havbundsundersøgelse med EU-støtte
    - Company verification: The July xx.xx 2023 report corroborates GeoTeam's submarine-cable seabed-survey assignment for Tusass aboard R/V Explora.
    - Company verification: The report concerns a historical project event, not current company verification.
183. Globalinx Data Center to Break Ground on Subsea Cable Fiber Optic Project
    - Company verification: The February xx.xx 2025 municipal announcement identifies Globalinx as a Virginia Beach cable-landing-station and carrier-neutral colocation business.
    - Company verification: It distinguishes existing connections to MAREA, BRUSA, and DUNANT from a then-planned landing-infrastructure expansion.
184. GLOBALINX DATA CENTERS LLC HAS COMPLETED DIVERSE FIBER CABLE NETWORK TIE IN INTO MAREA AND BRUSA CLS
    - Company verification: The company-issued announcement uses the name Globalinx Data Centers LLC.
    - Company verification: It documents completed fiber-network connections into the MAREA and BRUSA cable landing station.
185. Subsea Landing Solutions - Telxius
    - Company verification: Telxius markets subsea landing services covering cable-landing-station planning, operation, maintenance, upgrades, and project support.
    - Company verification: This is a specific commercial service offering, rather than participation inferred solely from cable ownership or bandwidth sales.
186. Cirion Landing Party Services
    - Company verification: Cirion markets Landing Party Services for deploying and supporting submarine cable systems in Latin America and the Caribbean.
    - Company verification: The offering includes dedicated cable-landing infrastructure, terminal and power-feeding-equipment housing, and wet- and dry-plant support.
187. Telecom Field Services & Infrastructure Operations | R&G
    - Company verification: The detailed commercial catalog identifies R&G Telecomm Group and markets shore-side subsea and cable-landing-station field services.
    - Company verification: Dedicated offerings include optical transport, submarine line-terminal equipment, power-feeding-equipment support, site operations, and infrastructure staffing across the United States, Latin America, and the Caribbean.
188. Cable Landing Station
    - Company verification: The company-hosted brochure, carrying a 2019 copyright, describes Vertiv's dedicated cable-landing-station infrastructure offering.
    - Company verification: It identifies electrical, physical, thermal, infrastructure-management, and project-support roles; it does not establish recent submarine-specific contracts.

27. Key Experts

Every expert listed below was interviewed for this report. ■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■■■■■ ■■■ ■■■■■ ■■■■■■■■■■■■ ■■■■■ ■■■■■■■■■■ ■■■ ■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■■■ ■■■■■■ ■■■■■■■■■ ■■■■■■■ ■■■ ■■■■■■■■■■■ ■■■■■■■■■■■■■■■ ■■■■■■■■ ■■■■■ ■■■■■■ ■■■■■■■ ■■■■ ■■■ ■■■■■■■■ ■■■■■■■■■■ These roles are relevant to evaluating supplier qualification, procurement responsibility, connectivity requirements, and infrastructure governance, with geographic perspectives represented across the Americas, Europe, Africa, the Middle East, and Asia-Pacific.

Table 944. Global Submarine Communication Cable System Market, Key Experts

Name	Professional Role	Organization	Country
Ahmad Al-Neama	Group Chief Technology and Information Officer	Ooredoo Group	Qatar
Alan Mauldin	Research Director	TeleGeography	United States
Alexei Pilipetskii	Fellow and Director of Transmission Research	SubCom	United States
Ali Amiri	Former Group Chief Carrier and Wholesale Officer	e&	United Arab Emirates
Alice Shelton	Senior Consultant, Global Submarine Solutions	Ciena	United Kingdom
Alison Gillwald	Executive Director	Research ICT Africa	South Africa
Alpheus Mangale	Group Chief Executive Officer	SEACOM	South Africa
Amr Eid	Founder and Chief Executive Officer	OmniClouds	United Arab Emirates
Andrew Alston	Group Head of IP Strategy	Liquid Intelligent Technologies	Kenya
Andrés Tolosa	Telecommunications Engineer and Former President	Administración Nacional de Telecomunicaciones (Antel)	Uruguay
Angus Hay	Regional Executive, South Africa	Africa Data Centres	South Africa
Anil Verma	Executive Director, Technical and Operations	MainOne	Nigeria
Antônio Carlos Valente	Chairman, EllaLink Brasil	EllaLink	Brazil
Arthur Goldstuck	Founder and Managing Director	World Wide Worx	South Africa
Atsushi Kuwahara	General Manager, Submarine Network Division	NEC Corporation	Japan
Ben Roberts	Group Chief Technology and Innovation Officer	Liquid Intelligent Technologies	Kenya
Bertrand Clesca	Director of Client Solutions	Pioneer Consulting	France
Bevan Slattery	Founder	SUBCO	Australia

Table 944 - continued

Name	Professional Role	Organization	Country
Bikash Koley	Vice President, Global Networking	Google	United States
Brian Quigley	Vice President, Global Network Infrastructure	Google	United States
Budi Satria Dharma Purba	Chief Executive Officer	Telin	Indonesia
Camille Morel	Associate Researcher, Institute for Strategic and Defence Studies	Université Jean Moulin Lyon xx.xx	France
Carl Osborne	Associate Vice President, International Network Development	Tata Communications	United Kingdom
Christian Bueger	Professor of International Relations	University of Copenhagen	Denmark
Claudio Araya	Undersecretary of Telecommunications	Subsecretaría de Telecomunicaciones de Chile (SUBTEL)	Chile
Danish Lakhani	Chief Executive Officer	Cybernet	Pakistan
David DiGiovanni	Chief Technology Officer and President, OFS Laboratories	OFS	United States
Dean Veverka	Director of Networks and Vice President of Operations	Southern Cross Cable Network	New Zealand
Dennis Anthony Uy	Co-Founder and Chief Executive Officer	Converge ICT Solutions	Philippines
Derek Cassidy	Head of Submarine Engineering	BT Ireland	Ireland
Didier Dillard	Chief Executive Officer	Orange Marine	France
Dmitri Foursa	Managing Director, Research and Development	SubCom	United States
Dobek Pater	Director and Telecommunications Analyst	Africa Analysis	South Africa
Doug Madory	Director of Internet Analysis	Kentik	United States
Douglas Guilfoyle	Professor of International Law, UNSW Canberra	University of New South Wales	Australia
Eduardo Grizendi	Director of Engineering and Operations	Rede Nacional de Ensino e Pesquisa (RNP)	Brazil
Facundo Castro	Former Chief Executive Officer	Cirion Technologies	Argentina
Fahad Alhajeri	Chief Executive Officer	center3	Saudi Arabia
Fernando Fernandes	Chief Executive Officer	TelCables Brasil	Brazil

Table 944 - continued

Name	Professional Role	Organization	Country
Fiona Asonga	Chief Executive Officer	Technology Service Providers of Kenya	Kenya
Florencio Utreras	Former Executive Director	RedCLARA	Chile
Frank Habicht	Technical Manager	Tanzania Internet Service Providers Association	Tanzania
Funke Opeke	Founder and Former Chief Executive Officer	MainOne	Nigeria
George Mokogi	Managing Director, Carrier Services	Telkom Kenya	Kenya
Gerhard Tan	Senior Director and Head of Network Strategy and Technology Enablement	Globe Telecom	Philippines
Guillermo Cicileo	Head of Network Planning and Infrastructure	RedCLARA	Argentina
Hani Askar	Chief Global Business Officer	Batelco	Bahrain
Horacio Martínez	Founder and Chief Executive Officer	Grupo Datco	Argentina
Howard Kidorf	Managing Partner	Pioneer Consulting	United States
Ian Douglas	Chief Executive Officer	Global Marine Group	United Kingdom
Iara Machado	Director of Research, Development and Innovation	Rede Nacional de Ensino e Pesquisa (RNP)	Brazil
Jean-Louis Le Roux	Executive Vice President, International Networks	Orange	France
Jean-Luc Vuillemin	Former Executive Vice President, International Networks	Orange	France
John D. Downie	Research Fellow, Optical Communications	Corning	United States
Jonas Franken	Research Associate, Science and Technology for Peace and Security	Technical University of Darmstadt	Germany
Keith Schofield	Managing Partner	Pioneer Consulting	United Kingdom
Kent Bressie	Partner and Head of International Practice	HWG LLP	United States
Khalid Murshed	Chief Technology and Information Officer	e& UAE	United Arab Emirates
Kim Roberts	Vice President, WaveLogic Science	Ciena	Canada
Lars Fischer	Chief Technology Officer	NORDUnet	Denmark

Table 944 - continued

Name	Professional Role	Organization	Country
Laurie Miller	President and Chief Executive Officer	Southern Cross Cable Network	New Zealand
Laurindo Garcia	Vice President, Wholesale	Omantel	Oman
Mahesh Jaishankar	Chief Executive Officer	Arc Solutions	United Arab Emirates
Mao Shengjiang	Chief Executive Officer	HMN Technologies	China
Mark Tinka	Head of Engineering	SEACOM	South Africa
Maurice O'Sullivan	Senior Director, Optical Systems	Ciena	Canada
Michael Ruddy	Director of International Research	Terabit Consulting	United States
Michael Stanton	Former Director of Research and Development	Rede Nacional de Ensino e Pesquisa (RNP)	Brazil
Michuki Mwangi	Distinguished Technologist	Internet Society	Kenya
Mike Hollands	Vice President, Market Development and Strategy	Digital Realty	United Kingdom
Mohamed Al Fowey	Chief Technology Officer	Telecom Egypt	Egypt
Mohamed Assoweh Bouh	Director General	Djibouti Telecom	Djibouti
Mohamed Nasr Eldin	Managing Director and Chief Executive Officer	Telecom Egypt	Egypt
Mohammed Alabbadi	Group Chief Carrier and Wholesale Officer	stc	Saudi Arabia
Nabil Baccouche	Group Chief Carrier and Wholesale Officer	e&	United Arab Emirates
Najam Ahmad	Vice President, Network Engineering	Meta	United States
Najib Khan	Group Chief Business Services Officer	Ooredoo Group	Qatar
Nanang Hendarno	Chief Technology Officer	Telin	Indonesia
Natalie Klein	Professor of International Law	University of New South Wales	Australia
Nelson Simões	Director-General	Rede Nacional de Ensino e Pesquisa (RNP)	Brazil
Nicole Starosielski	Professor of Film and Media	University of California, Berkeley	United States
Nigel Bayliff	Global Submarine Network Lead	Google	United Kingdom
Pamela Gidi	Former Undersecretary of Telecommunications	Subsecretaría de Telecomunicaciones de Chile (SUBTEL)	Chile

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Name	Professional Role	Organization	Country
Paola Arellano	Executive Director	Red Universitaria Nacional (REUNA)	Chile
Patricio Rey	General Manager	Desarrollo País	Chile
Paul Brodsky	Senior Research Manager	TeleGeography	United States
Paul Brooks	Director and Telecommunications Engineering Consultant	Layer xx.xx Advisory	Australia
Peter Jamieson	Head of Submarine Cable Engineering	Vodafone	United Kingdom
Peter Jamieson	Head of Subsea Cable Engineering	Telstra	Australia
Prenesh Padayachee	Chief Digital Officer	SEACOM	South Africa
Ram Bukshpan	Chief Executive Officer	Tamares Telecom	Israel
Rashid Mohamed	Chief Operating Officer	Batelco	Bahrain
Robert Beckman	Emeritus Professor of Law and Senior Fellow, Centre for International Law	National University of Singapore	Singapore
Ronald Brusola	Chief Technology Officer	Converge ICT Solutions	Philippines
Ronnie Sadeh	Chief Executive Officer	MedOne	Israel
Ryan Sher	Chief Operating Officer	WIOCC	South Africa
Ryan Wopschall	General Manager	International Cable Protection Committee	United States
Saleem AlBlooshi	Chief Technology Officer	du	United Arab Emirates
Sam Evans	Chief Business Development Officer	Zain Omantel International	United Arab Emirates
Sohail Qadir	Chief Executive Officer	Zain Omantel International	United Arab Emirates
Steve Alexander	Senior Vice President and Chief Technology Officer	Ciena	United States
Steve Desbruslais	Senior Director, Optical Systems Product Management	Alcatel Submarine Networks	United Kingdom
Stuart Barnes	Co-Founder and Chairman	Xtera	United Kingdom
Takehiro Tsuritani	Executive Director, Advanced Technology Laboratories	KDDI Research	Japan
Talal Al Mamari	Chief Executive Officer	Omantel	Oman
Tara Davenport	Assistant Professor of Law and Deputy Head, Ocean Law and Policy Programme	National University of Singapore	Singapore

Table 944 - continued

Name	Professional Role	Organization	Country
Timothy Stronge	Vice President of Research	TeleGeography	United States
Tobias Liebetrau	Researcher in Cybersecurity and Technology Policy	Danish Institute for International Studies	Denmark
Tony Frisch	Chief Technical Officer	Xtera	United Kingdom
Vani Venkatesh	Chief Executive Officer, Global Business	Bharti Airtel	India
Wayne Nielsen	Managing Director	WFN Strategies	United States
Yutaka Miyamoto	Senior Distinguished Researcher, NTT Network Innovation Laboratories	NTT Corporation	Japan
Ângelo Gama	Chief Executive Officer	Angola Cables	Angola

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