

RIVO MULTITRADE OPTICAL SYSTEMS

Eastern Europe Communication Section Optical Cable



Overview

A submarine communications cable is a cable laid on the between land-based stations to carry across stretches of ocean and sea. The first submarine communications cables were laid beginning in the 1850s and carried traffic, establishing the first instant telecommunications links between continents, such as the first which became operational on 16 August 1858. By 1872 all the continents.

Key Takeaways

Eastern Europe is rapidly expanding its optical fiber networks, with high penetration in countries like Lithuania, Romania, Latvia, and Russia, supported by both public and private investments. Fiber Deployment in Eastern Europe

Fiber-optic broadband is becoming the dominant platform across Eastern Europe, though penetration varies significantly by country. Lithuania, Romania, Latvia, and Russia lead the region with residential fiber penetration exceeding 68% as of 2023, driven by government support, favorable geography, and rising demand. In contrast, Czechia and Croatia lag behind, with penetration below 23% . Key operators include Telia Lietuva in Lithuania, Digi Communications in Romania, and Tet in Latvia, all investing heavily in fiber infrastructure and high-speed services .

Government and Public Funding



Government involvement is crucial in incentivizing fiber rollouts, particularly in rural or underserved areas. National broadband plans in countries like Hungary, Slovakia, and Poland aim to provide gigabit or 100 Mbps coverage to nearly all households, often through partnerships with municipalities and private operators . Public funding helps reduce deployment costs and accelerates network expansion.

Submarine and Backbone Connectivity

Eastern Europe is also connected via submarine and backbone optical cables, which are critical for high-capacity international connectivity. The EU supports projects under CEF Digital, funding strategic submarine cables linking Europe to Africa, the Middle East, and Asia, as well as reinforcing intra-European connections, including Central and Eastern Europe . These projects ensure secure, high-speed data transmission and include SMART monitoring technologies for infrastructure protection.

Technology and Network Quality

High-quality optical fiber networks are emphasized to ensure robustness, energy efficiency, and future-proofing. Networks are built using advanced fiber types like Corning Ultra G.652D low-loss fibers, capable of supporting 400G technology and high-capacity data transfers . Proper installation by skilled personnel and high-quality components reduce downtime and long-term operational costs, making networks sustainable and reliable .

Key Trends

- FTTH (Fiber to the Home) is increasingly deployed, especially in urban areas.
- 10 Gbps services are available in leading markets like Romania.
- Hybrid networks combining fiber and coaxial are used in some countries to extend coverage efficiently.
- Cross-border connectivity is strengthened through both terrestrial and submarine cables, enhancing resilience and redundancy . Eastern Europe's optical cable infrastructure is thus a combination of domestic fiber rollouts and international backbone connections, positioning the region for high-speed, secure, and sustainable digital communication.

Article Content

Submarine Cable Map

TeleGeography's comprehensive and regularly updated interactive map of the world's major submarine cable systems and landing

Submarine communications cable

OverviewEarly history: telegraph and coaxial cablesModern historyImportance of submarine cablesVulnerabilities of submarine cablesEnvironmental impactSee alsoFurther reading

A submarine communications cable is a cable laid on the seabed between land-based stations to carry telecommunication signals across stretches of ocean and sea. The first submarine communications cables were laid beginning in the 1850s and carried telegraphy traffic, establishing the first instant telecommunications links between continents, such as the first transatlantic telegraph cable which became operational on 16 August 1858. By 1872 all the continents

Transatlantic communications cable

All cables presently in service use fiber optic technology. Many cables terminate in Newfoundland and Ireland, which lie on the great

BEREC Report on domestic submarine cables connectivity in

Domestic submarine fibre optic cable networks, which are part of the global international electronic communication network (ECN)

Eastern Europe: Optical Fibre Cables Market Report

This report presents a comprehensive overview of the Eastern European optical fibre cables market, the effect of recent high-impact

Eastern Europe's Optical Fiber Cables Market Report 2026

This strategic analysis provides a comprehensive examination of the optical fiber cables market across Eastern

Central and Eastern Europe: Singlemode Optical Fiber Cables Market

This report presents a comprehensive overview of the Central and Eastern European singlemode optical fiber cables market, the

Internet Infrastructure Map (2026)

Explore the physical backbone of the internet with our interactive map of undersea fiber optic cables, peering exchange points, and

Map of the week – Submarine telecommunication cables

These fibre-optic cables have the capacity to transmit data at a staggering 200 terabits per second 1, which vastly

CO-DEPLOYMENT OF FIBRE OPTIC CABLES FOR CROSS

a Helsinki through the border with Russia to Saint Petersburg, Moscow, Kazan to the border with Kazakhstan, Mongolia and China.

Israel to build fibre-optic link between Europe and Asia

Israel will build a 254-kilometre (158 mile) fibre-optic cable between the Mediterranean and Red Sea, creating a

A future-proof network for Europe: Full fibre and 5G

For instance, GIA provisions enable telecom operators to collaborate with public works projects to install fibre optic cables

Severed Fiber Optic Cables Disrupted Internet Access In ...

An anonymous reader quotes a report from the BBC: Severed fibre optic cables disrupted internet access in parts of

Eastern Europe's Optical Fibers and Bundles Market Report 2026

The Eastern European market for optical fibers, bundles, and cables stands at a critical inflection point, shaped by a

Optical cable

INCAB — one of the largest manufacturers of optical cable in Europe. Number 1 plant in Russia and CIS in terms of production

Learn About the Transatlantic Cable

What's next for the transatlantic cable network? It seems likely that fiber-optic cables will remain the preferred medium for

Europacable calls for the inclusion of optical fiber cables in the EU ...

Europacable, the voice of Europe's wire and cable industry, calls on the European Commission to include optical fibre cables in the

History of the Atlantic Cable & Submarine Telegraphy

History of the Atlantic Cable & Undersea Communications from the first submarine cable of 1850 to the worldwide

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