

Asia-Europe Optical Cable Construction



Overview

New Builds Europe, Africa, and the Middle East These regions are all experiencing a surge in new submarine cables.

Key Takeaways

Several major undersea optical fiber cable projects are underway to connect Asia and Europe, enhancing global internet capacity, reducing latency, and providing diverse routing options. Key Projects



1. EMA (Europe-Middle East-Asia) Cable Chinese state-owned telecom firms—China Mobile, China Telecom, and China Unicom—are developing the EMA cable, a \$500 million subsea fiber-optic network linking Hong Kong, Hainan, Singapore, Pakistan, Saudi Arabia, Egypt, and France . The cable is manufactured and laid by HMN Technologies, with Chinese government subsidies supporting the project. Contracts are expected to be finalized by the end of 2026, with the cable anticipated to go online by the end of 2025. The network aims to rival the US-backed SEA-ME-WE 6 cable and involves foreign partners such as Orange, PTCL, Telecom Egypt, and Zain Saudi Arabia .

2. SEA-ME-WE 6 (South East Asia-Middle East-Western Europe 6) This 19,200 km cable system starts in Singapore and ends in France, passing through Malaysia, Bangladesh, Sri Lanka, Maldives, India, Pakistan, Djibouti, Saudi Arabia, and Egypt . Managed by a consortium of telecom companies along the route, installation is handled by US-based SubCom. SEA-ME-WE 6 offers a transfer rate of 100 terabytes per second, supporting extremely low latency and high-capacity data transmission, sufficient for 40,000 high-definition videos per second . The cable is expected to be operational by the first quarter of 2025.

3. TEAS Network (Trans-Regional Europe-Asia Subsea) The TEAS network provides dual submarine cable corridors across the Arabian Peninsula, linking India, the Middle East, and Europe . It integrates both submarine and terrestrial routes, including Med West and Med East cables from Europe to the Eastern Mediterranean, and the India-Middle East (IME) cable extending to Mumbai and Gwadar. TEAS emphasizes low latency, redundancy, and mesh network capabilities, supporting large-scale data centers and secure, scalable connectivity .

4. Cinia Arctic Route Cinia Ltd, in partnership with Far North Digital, is constructing a 14,000 km subsea cable through the Arctic, connecting Japan to Europe via the Northwest Passage, with landings in Alaska, the Canadian Arctic, Norway, Finland, and Ireland . This route significantly reduces optical distance between Asia and Europe, minimizing latency. The project is expected to be completed by the end of 2025 and will complement Cinia's existing European network, providing additional secure and high-capacity connectivity options .

Strategic and Technical Considerations

- **Capacity and Latency:** Modern cables like SEA-ME-WE 6 and EMA are designed for extremely high data throughput and low latency, critical for cloud services, financial transactions, and streaming.
- **Redundancy and Security:** Networks such as TEAS provide dual routes and terrestrial bypasses to protect against disruptions, including geopolitical risks and natural hazards.
- **Global Competition:** Projects like EMA reflect strategic competition between China and the US in global telecommunications infrastructure, influencing ownership, technology standards, and international partnerships .

- **Integration with Data Centers:** These cables are designed to support large-scale data centers, enabling faster intercontinental data transfer and improved service reliability. These Asia-Europe optical cable projects collectively enhance global internet resilience, provide multiple routing options, and support the growing demand for high-speed, low-latency international connectivity.

Article Content

SEA-ME-WE 6

South East Asia-Middle East-Western Europe 6 (SEA-ME-WE 6) is an in-progress optical fibre submarine communications cable

Submarine Cable Map

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

THE NETWORK | Submarine Fiber Optics | Cinturion

Our routes are diverse from all other cables crossing the region and diverse from Egypt. In addition, protection is also provided to the

Number of cores in Asia-Europe optical cable

FLAG includes undersea cable segments, and two terrestrial crossings. The segments can be either direct point-to-point links, or

Kazakhstan completes key stage of trans-Caspian Fiber Optic Cable

Kazakhstan has completed the most technically challenging stage of the Trans-Caspian Fiber Optic Cable project

Construction starts on another Asia-Europe undersea cable

The company claimed the new optical-fibre cable system, called the South East Asia-Middle East-Western Europe 6

Israel to build fibre-optic link between Europe and Asia

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

Trans-Caspian Fiber Optic

Trans-Caspian Fiber Optic The Trans-Caspian Fiber Optic Cable is a backbone fiber-optic cable between the Republic of Azerbaijan

A new coming for Submarine Cable Systems – the Independent ...

Construction of the 25 cable systems will entail investment of nearly \$6 billion, with several cable systems declaring

Israel to build fiber-optic cable linking Europe, Asia

Israel will build a 254-kilometer (158 mile) fiber-optic cable between the Mediterranean and the Red Sea to link

Rostelecom completes construction of stage two of TEA NEXT trans ...

The design capacity of the new fiber-optic line will be 96 dark fibers, which will be used as a transit resource for

Greece, Saudi Arabia Said to Lay Fibre Optic Cable to Link Europe With Asia

Greece, Saudi Arabia Said to Partner for Laying Fibre Optic Data Cable to Link Europe With Asia The final closing of

China to Connect Europe, Middle East and Asia via \$500 Million Subsea Cable

State-owned telecom firms in China are developing a \$500 million undersea fiber-optic internet cable network to

New data cable to link Asia with Europe

At least 25% of internet traffic and data carried from Asia to Europe via undersea fiber-optic cables in the Red Sea has

Submarine Cable Map 2023

New Builds Europe, Africa, and the Middle East These regions are all experiencing a surge in new submarine cables. Projects such

The Shanghai Landing Station of the Asia-Europe Fiber-optic

The Shanghai landing station of the Asia-Europe fiber-optic submarine cable went into service on Sept 14, 2000.

The Vast Network Below: A Closer Look at Submarine Cable System ...

The system was originally one of the longest submarine cables in the world at 13,000 km, with eight segments linking

Submarine Cable Map 2025

Telecom Egypt has arisen as a trusted hub linking Africa, Europe, and Asia. Driven by the dedication of its top-notch professionals

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

