

International connectivity between Europe and Asia will be strengthened and become more resilient through two complementing submarine cable systems – Far North Fiber and Polar Connect.

For today's digital societies communication networks, and especially submarine cable systems, are increasingly significant part of the critical infrastructure at the national, European and global levels. Resilience against vulnerabilities and geopolitical instability threats can be ensured by improved diversity via new cable routes.

Improved international connectivity and data gateways from Europe to Asia and to North America strengthens the digital sovereignty of Europe and its' member states. Innovative technologies, like AI, 5G, and emerging 6G, will create an increasing, yet hardly predictable, demand on the international connectivity platforms and submarine cable systems. The Northern European Data Gateway is considered as a cornerstone in securing Europe's strategic digital autonomy and sovereignty, as it promotes new, secure, much shorter and redundant paths towards Asia and North America through the Arctic area.

Arctic connectivity provides additional resilience to existing connectivity between Europe and Asia. Multiple submarine cable systems through the Arctic region will create an Arctic communications system for added redundancy, equivalent of the existing multiple trans-Atlantic and trans-Pacific submarine cable systems.

Significant efforts are currently underway developing two complementary and specific solutions to establish safe and secure connectivity through the Arctic Ocean. Two complementary systems with diverse Arctic routes are being promoted:

- FAR NORTH FIBER system (FNF), which will be routed through the North-West Passage between Greenland and Canada.
- POLAR-CONNECT system (PC), which is planned to be routed under the ice cap of the North Pole in the Arctic Ocean, just North-East of Greenland.

FNF is planned to be the first pan-Arctic submarine telecom cable system connecting Europe to Asia through North America using the Northwest passage. Currently, the FNF project is in the commercial development phase and is planned to be completed and ready for service and operation by the end of 2026.

PC will be the second Arctic submarine telecom cable system, with a route north of Greenland. PC is currently undergoing a feasibility study with a view to be realized around 2030.

FNF and PC systems are complementing each other to great extent especially through increased redundancy and route diversity, thus bringing a multitude of opportunities and benefits for increased collaborations between Europe, Asia and North America.

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