

Northern EU Gateways project

The Northern EU Gateways project contributes to the European key priorities and strategic objectives by improving the backbone connectivity in a strategically important region in Europe and to strengthen the EU's links with third countries.

The project focuses the concrete design and preparations for three new cable investments: two submarine cables, **Far North Fiber (FNF)** and **C-Lion2**, and **Terrestrial Backbone Finland (TBF)**. The project includes several studies for these cable investments. The project will also develop a **vision for the year 2030** for the North Atlantic and Arctic section of the Digital Global Gateway, which explores the feasibility of the most direct cable routes east of Greenland.

Cinia Oy, the coordinator of the project, is a Finnish company which provides high-availability data network, cyber security and software solutions. Cinia offers communication solutions to the Nordics, Central Europe and to markets in Asia and Eastern Europe. The company owns and operates a ~15 000-kilometer fiber-optic network.

NORDUnet A/S, partner in the project, is a collaboration of the NRENs of the five Nordic countries; Denmark, Iceland, Norway, Sweden, and Finland. NORDUnet operates a world-class network and e-infrastructure service for the Nordic R&E community.

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21-EU-DIG-NORTHERN EU GATEWAYS



**Co-funded by
the European Union**

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NORTHERN EU GATEWAYS

Planning of development of the autonomous digital backbone connecting Europe with global strategic partners

Benefits of the project

- Improves the resilience and redundancy of critical infrastructure between and within EU member states.
- Serves the objectives of EU digital autonomy, sovereignty and security.
- Supports the achievement of the EU's HPC2 targets by providing terabit per second connections.
- Strengthens the competitive position of EU's data economy enterprises.
- Strengthens the EU's links with third countries as trading and research partners by strengthening intercontinental backbone connectivity.

Objectives of the project

- To develop physically secure and cyber secure digital backbone connections for Europe and other continents.
- To make preparations for constructing a completely new, high-speed and high-capacity backbone networks.
- To significantly improve the existing backbone networks.
- To strengthen the quality of connectivity in terms of resilience, cyber security, redundancy, and latency.
- To form a digital ring structure around Northern Europe providing security and redundancy.
- To address the specific needs of OCT areas in order to ensure that nobody is left behind by the digital transformation to enable the full participation of citizens and enterprises in the digital European economy.

Work packages of the project

Far North Fiber (FNF) is an Arctic submarine cable system connecting Europe, North America and Asia. Northern EU Gateways project deliverable will be the FNF cable route plan.

C-Lion2 (CL2) will connect multiple key business hubs across Northern Europe including cities in Finland, Sweden, and Germany. Northern EU Gateways project deliverables will be the CL2 cable route plan, marine route survey and needed permits.

Terrestrial Backbone Finland (TBF) is a national backbone network that enables low-latency and high-speed connections through Finland. Northern EU Gateways project deliverables will be the TBF detailed route plan and building permit applications.

Vision 2030 will develop high-level plan for new submarine and terrestrial cable systems connecting EU Member States with each other and with overseas territories and continents that the EU has strong ties and interests with. Project deliverable will be the Vision 2030 white paper for North Atlantic and Arctic section of the Digital Global Gateway, developed and coordinated in cooperation with relevant international stakeholders.

