



Ministry of Transport
and Communications

Baltic Sea backbone telecommunications cable

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Baltic Sea backbone telecommunications cable

SUMMARY

- Currently, international data traffic from Finland to mainland Europe takes place via a single route running through Sweden and Denmark. In the event of disruptions, transferring traffic to other routes is not easy
- Possible solution: direct submarine cable from Finland to Germany
- Baltic Sea submarine cable is also needed to improve the operating conditions of data centres and other cloud computing businesses
- The cable is an important project at EU level, too. In Russia, plans are being made to build a new submarine cable along the Northern Sea Route. This link would connect Europe and Asia. The Baltic Sea cable and Northern Sea Route cable can be connected to each other via an existing link through Finland -> new, direct connection between mainland Europe and Asia
- Feasibility study on the Baltic Sea backbone cable, focusing on technical and financial aspects, was completed in June 2012 -> estimated costs of the cable EUR 50 million
- In March 2013, the Finnish Government made the decision that the studies are to be continued. Work is currently underway to prepare a business plan for the submarine cable project. It also looks into different ways of financing the project. No option has yet been excluded
- Finland is preparing to notify the submarine cable project to the EU Commission. The Commission's approval is required, if public funding is to be used in implementing the project

Basic information



- To secure its international connections, Finland needs new, alternative routes for data traffic
- Most traffic currently runs through a single route via Sweden and Denmark
- Pre-study on the feasibility of a direct submarine cable between Finland and Germany finalised in summer 2012
- Length of cable 900-1,300 km, depending on route
- Costs around EUR 50 million

Technical aspects

- According to preliminary plans, the cable would comprise 8 separate fibre optic pairs, each able to carry data traffic up to 10 Tbit/s.
- Optical repeaters to be installed every 100 km
- Submarine branching units possible for optional landings to other Baltic Sea countries
- Cable to be laid to a depth of 1-3 metres on the seabed
- Cable providers promise a life-time of at least 25 years
- Implementation of the project will take two open-sea periods

Next steps of the project

- A business plan is being prepared at the moment, to be completed at the beginning of June 2013
- Preparation of the business plan also includes exploring different ways of financing the project. None of the options has been excluded so far
- One possibility is that a state-owned company would own the cable and run the submarine cable business. Capacity or dark fibre of the cable would be leased on the IRU principle (Indefeasible Rights of Use)
- Construction and maintenance of the cable would be opened up to competitive bidding. The state-owned submarine cable company could also outsource the operation
- If public funding is to be used in constructing the cable, the project will need the approval of the EU Commission. Finland has been preparing the notification of the project to the Commission from autumn 2012

Going forward: new, shorter link between mainland Europe and Asia



- A Russia-based company is planning a new high-capacity connection (*ROTACS*) from Asia to Europe via the Northern Sea Route
- *ROTACS* and the Baltic Sea cable can be connected to each other in Murmansk via an existing link through Finland
- Together, these two cables would provide a new high-capacity and low-latency connection between mainland Europe and Asia
- A new, unbroken submarine cable connection would also be more reliable than the current southern route, which comprises various parts and runs through the territorial waters of several countries