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Subject: **State aid SA.36918 (2014/N) – Finland**
Baltic Sea Backbone Cable

Sir,

I. SUMMARY

(1) I am pleased to be able to inform you that the European Commission has assessed the measure "Baltic Sea Backbone Cable", also called "Sea Lion project", and decided not to raise objections because the measure is compatible with the internal market, pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union (TFEU).

II. PROCEDURE

(2) Following pre-notification contacts, by letter of 16 May 2014, the Finnish authorities notified, pursuant to Article 108 (3) of the TFEU the above mentioned measure. Additional information was provided on 23 July 2014.

(3) By letter of 21 May 2014, the Finnish authorities agreed to receive the present decision in the working language, namely English.

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III. CONTEXT

(4) The Europe 2020 Strategy ("EU2020") and the Digital Agenda for Europe have underlined the importance of broadband deployment to promote competitiveness, social inclusion and employment in the EU and defined the aim to "ensure the roll-out and take-up of broadband for all, at increasing speeds, through both fixed and wireless technologies, and to facilitate investment in the new very fast open and competitive internet networks that will be the arteries of a future economy".

(5) The implementation of the Digital Agenda requires a robust, reliable and very high capacity networks which deliver digital services and content across Europe. SEPA (The Single Euro Payments Area) and Smart Grids are good examples of unifying digital platforms' interoperability which need reliable European level connections. In the context of the data retention and data privacy discussions, the creation of cyber secure networks and cybersecurity in cloud based solutions is considered an important issue both at Member States and EU level. The basis of such reliable networks is a high capacity and coherent cross-border backbone that connects each part of Europe to the main traffic transfer nodes in Central Europe in a redundant way and with low latency.

(6) As regards to the Northern Europe and Baltic Sea area, the cross border connections to the main nodes consist of interconnected regional networks rather than direct genuine cross border backbone cables of high capacity. The current connections are routed through Sweden concentrating connections into the Copenhagen and Hamburg corridor with no backbone level redundancy loops. Currently, there is no direct network that connects the Northern and Eastern Baltic Sea areas to Central Europe.

(7) In this context, the main purpose of this project is twofold. First, the Baltic Sea Backbone Cable will provide a direct back-up link for existing connections between countries in the Baltic Sea and Central Europe. Second, based on most advanced active technology, this link ensures cybersecurity for sensitive data transmissions between Finland and Germany.

(8) The network built under the notified project will be a Next generation network (NGN) which would allow data traffic in a reliable, secure and safe way, ensuring high-speed transmissions and an optimal connectivity.

III.1. TARGET AREAS

(9) The new submarine cable will be built between Finland and Germany with one branching element to include Baltics in the proposed network structure. The cable would connect Finland's data transfer to global networks from whole Europe[1].

Existing international connectivity in Finland and the lack of proper redundancy

[1] The Baltic Sea submarine cable also opens up a potential connection to Asia through the planned ROTACS cable, which connects Tokyo to London.

(10) There are several cables crossing the Baltic Sea from the Baltic countries to Sweden and from Finland to Sweden. The current traffic in the Northern Europe goes mainly through Sweden (St Petersburg, Helsinki, Stockholm, Copenhagen, Hamburg and Frankfurt), with additional branches to the Baltic States.

(11) There is no geographical redundancy route available for backup and redundancy purposes. Thus, at the European level perspective, the Baltic area connections concentrate on the Copenhagen–Hamburg axel with no alternative backbone routes to the Central European side. Telecom operators are establishing landline connections via the Baltic to Central Europe by interconnecting the regional networks.

Figure: New Baltic Sea submarine cable (in red) with optional branches to the Baltic Sea countries (red dotted line); current connections to Central Europe (continued blue line); and planned connections (blue dotted line)

(12) The current backbone connections consist of separate serial links in separate networks crossing several countries. The current structure could be seen as links connecting regional networks together rather than a backbone network at European level created regardless the regional networks and covering several countries.

(13) There is currently no viable alternative backbone route to the cable passing through Sweden and this situation triggers the risk of disruption of services. A major natural disaster, large electricity distribution problem etc. in one country could block critical functions in several other countries (like financial transactions, card payments, smart grid electricity control functions and both commercial and private communications).

(14) The lack of proper redundancy in the areas covered by the notified measure was in particular highlighted by a feasibility study commanded by the Government

and during the consultations carried out by the Finnish authorities with interested operators.

III.2. Demand for connectivity and cyber secure services

(15) A key driver of growth in the internet traffic is the increasing amount of users and devices such as tablets, mobile phones and machine-to-machine devices. The amount of information created and replicated in the internet is growing at an enormous speed.

(16) Finland has an Internet penetration rate over 89% and a mobile penetration rate over 120%. Finland is an important hub location for the ICT sector[2] offering a stable environment for outsourced datacentres as well as an easy access to Russia and Baltic countries. According to the Finnish authorities, the demand in data services field (e.g. cloud services) is expected to grow in the Nordics and in Western Europe with approximately an annual rate of 40%. The Finnish ICT market has been estimated to grow during 2010 - 2015 on average by 2,2% in total to a value of 7,6 B€. The international traffic from Finland is estimated currently to be about 170G and in five years it is estimated to have increased to about 1 Tbit. The current traffic goes mainly through Sweden (St Petersburg, Helsinki, Stockholm, Copenhagen, Hamburg and Frankfurt), with additional branches to the Baltic States is estimated to be on the level of 170Tbit/sec. Most of the provided connections are at the moment in 10 Gbit/100G capacity level. The estimated new capacity is 60 to 80 Tbit/sec, which is approximately 30% increase of the current capacity.

(17) Backbone networks will have to carry this dramatically increasing traffic. Therefore, adequate network infrastructure is needed to satisfy the demand and provide room for growth in data services.

(18) Besides the special connectivity needs of the Finnish government, several cloud services companies have pointed out their requirements in terms of underlying infrastructure able to support their long-term investments in Scandinavian countries. Global cloud services providers with interests in Finland underlined that new international fibre connectivity to Finland is very much required by cloud services providers to increase their service availability, infrastructure reliability and network diversity to Finland. These providers consider that the new cable would address two problems. The fibre bottleneck on the Danish route and the lengthier and more expensive route via the Baltic countries.

(19) Further, the new backbone infrastructure is also necessary to ensure cyber security for sensitive services and the connectivity between existing and new networks. In this regard, the potential clients of the future backbone cable put forward that, in comparison to existing terrestrial systems, the subsea connectivity would be advantageous as it ensures a neutral and robust platform with less points of failure.

[2] ICT - Information and communications technology.

(20) The Finnish authorities as well consider that it is utterly important to ensure the further uptake of secure cloud-based solutions from a neutral perspective. Under these circumstances, it is vital to be able to provide an open access platform which can be used by any party on a transparent, equivalent and cost based model.

III.3. The rationale for rolling out a new network

(21) According to the Finnish authorities, several reasons back up the project for the construction of the Baltic Sea cable.

(22) Most of the traffic from East to West goes through one single bridge between Sweden and Denmark. The international data traffic from Finland to mainland Europe takes place entirely through Sweden. Traffic goes undersea to Stockholm and continues over the terrestrial routes to Copenhagen and Hamburg. Therefore, the most frequent falls in the seamless data connectivity are currently those of single point failure connections. An alternative connection linking the Northern and Eastern parts of Europe to Central Europe is therefore essential to respond to safety concerns in order to guarantee a high capacity separate route in the event that current connections are turned off, for example, because of an electric network failure, a large-scale disaster or a similar accident. The new Baltic Sea backbone cable would provide with an alternative route connecting Northern and Eastern parts of Europe to Central Europe and would ensure backup and redundancy in case the current network is offline. It will be possible to branch the Baltic Sea submarine cable to countries alongside the route for attaining users and investors. The Finnish authorities consider that the Baltic Sea submarine cable can be branched for a relatively low additional budget to Saint Petersburg and Kaliningrad, as well as to the Baltic States. Possible branching units in the Baltics are Tallin in Estonia, Liepaja in Latvia and Sventoji in Lithuania. The branches would enable direct connectivity between Denmark and Finland, Denmark and Russia, and Denmark and the Baltic states.

(23) The current traffic is mostly terrestrial, while the proposed backbone cable is a submarine cable, which implies that the risk of damage is lower than for terrestrial cables and have the advantage of carrying vast amounts of data.

(24) The new cable will be designed to offer increased security for data transmission. The Baltic Sea cable will be a straight uninterrupted route, which presents advantages such as a better connectivity and more high-speed transmissions. The building of newer fast network would enable the service providers to expand encryption across their network, and thus enable more cyber secure services. Ensuring better quality and better security technologies is also expected to increase the traffic.

(25) Furthermore, the connections to Europe and to East would be considerably shortened. This would mean reduced time lag of data traffic which is a significant benefit for cloud services providers and other businesses.

(26) The highly growing hosting services cannot be supported solely on the existing infrastructure and, therefore, new infrastructure is necessary to satisfy the demand for international connectivity and augmented capacity needs.

(27) As confirmed by the analyses carried out by the authorities and the responses received during the public consultation and exchanges with various EU and international operators or authorities, there is a genuine interest at different levels for implementing such network. Several operators expressed their intention to buy future fibre pairs/capacity and/or to participate to the investment. Moreover, for some interested parties, the possibilities of connectivity to Russia and to the East, as well as the connectivity to the Baltic countries are regarded as fundamental in implementing the project. In this context, the new submarine cable will allow data traffic in a reliable, secure and safe way, ensuring very high speed transmissions and an optimal connectivity.

(28) In addition to the EU objectives, the Baltic Sea Backbone creates further networking potentials: high capacity connections to Russia, Barents Sea area and northern Norway as well as intercontinental backbone to Asia via the North-East Passage[3].

(29) According to the Finnish authorities, no plans have been made by market players for a rollout of such network over the next three years.

IV. DESCRIPTION OF THE MEASURE

(30) **Objective**: The objective of the notified measure is the construction of a submarine fibre cable between Finland and Germany to provide new connections at European and global level as well as more redundancy and better services. The new network will meet the demand of the big data players and complement the existing service in the market.

(31) The project is aiming (1) to address security and safety concerns, by providing new cyber secure connections and redundancy between East and West and connections between Finland and Germany with branching to Baltic countries; (2) to shorten the connection to Europe meaning a reduced time lag of data traffic; (3) to remove the present routing bottleneck concerning Finland and the Baltic countries caused by the traffic concentrating to go via Sweden and via the Copenhagen – Hamburg corridor; (4) to fulfil the future backbone capacity needs related to the rapid data traffic increase; (5) to create uninterrupted connectivity of high capacity from the Baltic countries and Finland to the Central European main nodes; (6) to avoid the reliability and operation/maintenance problems which are typical to connections owned and operated by several different operators. According to the Finnish authorities, the project also supports the growth of the Finnish digital economy and, thus, helps to deliver on key Member State actions in the Digital Agenda for Europe.

(32) **Legal basis**: The measure is based on the Finnish Government Decision of 29 November 2013.

(33) **Target Areas**: According to the Finnish authorities, the measure targets areas where there is a demand for a direct backbone connection between Northern and

[3] Finnish Government has taken into consideration the possibilities to link the Baltic Sea backbone cable to the North-East Passage ROTACS cable, which is planned to connect Tokyo to London through Russia.

Eastern Baltic Sea areas to Central Europe, i.e. the direct connection between Finland and Germany with one branching element to include Baltics in the network structure. The submarine route proposed under the current plan represents the shortest direct connection to Europe.

(34) As regards the submarine infrastructure, there are no plans to rollout such infrastructure in the target areas by private investors in the next 3 years. From the consultation carried out with the interested parties, it resulted that the commercial operators in Finland are more focusing on providing end-user services, and mobile services, thus relying on existing connectivity or other providers for the connectivity. It was noticed that the commercial operators are investing on different service levels, while the infrastructure investments are mainly done by infrastructure providers or private/public consortia.

(35) As explained below in paragraphs (47) to (55), the authorities verified that no adequate backbone infrastructure is currently available. In particular, the analysis concerned the alternative terrestrial route under construction through the Baltics to Germany (Baltic Highway). This route will ensure connection from Russia to Germany, but it does not connect Finland.

(36) According to the Finnish authorities, the Baltic Highway serves a different purpose as it merely brings more connectivity to Eastern Europe. The network structure of the Baltic Highway is different from the one of the planned Baltic Sea cable. The latter is surpassing several territories. Its technical characteristics do not meet the needs of the potential customers and end users of the Baltic Sea cable[4]. The Finnish authorities consider furthermore that the Baltic Highway is not a feasible alternative to achieve the targets set within the Baltic Sea cable project, i.e. to provide redundancy, cyber security and reduced latency. The joints and manholes necessary for the terrestrial cable infrastructure are not always sufficient to ensure cyber security[5] and thus, redundancy measures are still needed. Also, from the perspective of the ownership of such networks, the Finnish authorities consider that its investment promotes a sustainable cyber secure platform able to respond satisfactorily in case of national emergency. Therefore, there is no substitutability between the Baltic Highway and the planned submarine network[6]. Given these differences, Finland had not been included in the original Baltic Highway plans.

(37) **Beneficiaries**: The direct beneficiary of the aid will be the submarine cable company which will build, operate and manage the open access network. This Special Purpose Vehicle (SPV) will be created following a tender procedure in which the Finnish government will invite private partners to participate to the project.

[4] See for instance paragraph (18) of this decision.

[5] Terrestrial systems use unrepeatered systems and need a point of presence at least 300-400 km distance.

[6] The Baltic Highway is a layer-2 level network made of separate infrastructures in Estonia, Latvia, Lithuania, Poland and Germany with links to Russia. The Finnish authorities have indicated that the Baltic Highway consists of separate infrastructure providers, either terrestrial fibre connections by gas line providers or energy infrastructure owners and owners of optical ground wire terrestrial networks on power transmission lines.

(38) Indirect beneficiaries will be the third party operators providing electronic communications services and networks. The operators interconnecting with the new access points of the infrastructure to be built will get lower connectivity prices and better connectivity than if the project was not partly publicly funded. Business end-users will also benefit from the expected lower costs.

(39) **Design of the project**: The project will run under the responsibility of a Special Purpose Vehicle (SPV) consortium, a "submarine cable company" which will build, operate and manage the open access network. Private actors will be invited to participate to the project for financing and ownership of the network.

(40) Network architecture will be based on the most efficient cable route proposed via Finland and Germany with one branching element to include Baltics in the network structure. The network architecture will be designed in a way that promotes the cyber security and redundancy for the connectivity services between East and West. In order to maximize the security, the network design will include possibilities for the network customers to set up separately their own equipment as well as different access to premises. Manholes and points of presence will be built to enable access to fibres, as well as ducts if technically feasible, and interconnection to the network on layer-1, layer-2 and layer-3 level.

(41) The construction of the network is scheduled for 2014 and 2015. Technically, the Baltic Sea backbone will be a fibre optic submarine cable from Germany to Finland having optional undersea branches to the Baltic countries. The cable will consist of six to eight fibre pairs (depending on the additional routes made via the Baltic States and network design), each pair capable to carry a maximum traffic load of 10 Terabit per second. The network will include at least two fibre pairs designated for the use of the Finnish Government while the spare capacity will be used on a commercial basis.

(42) The SPV will sell, manage and operate fibre pairs. Due to the nature of extremely high capacity in the fibre-optic cables, capacity is sold to high volume players in wholesale level and to the end users for high connectivity services. Customers of the deployed network will be big data companies, Telecom operators, regional networks, banking and media companies and other players. Products and services of the submarine cable company - fibre pairs, capacity (IRU-based contracts[7]) as well as operations and maintenance services – will be commercialised on market terms[8].

(43) The sea route will be operated on an open access principle allowing a neutral, multi-operator platform and a transparent and non-discriminatory treatment. The SPV will provide for at least seven years wholesale services in an open and non-discriminatory way. Published pricing policies and access conditions will be subject to the regulatory approval and monitoring.

(44) **Budget and funding instruments**: The public support takes the form of equity funding by means of cash, convertible bonds or equivalent to the amount of

[7] IRU - Indefeasible rights of use.
[8] The fibre pairs reserved for the Finnish Government are excluded from the commercial activity.

EUR 20 million to the SPV to be created. The overall price of the cable is estimated at approximately EUR 60 million. A significant part (approximately 30 %) of the budget will be funded with private investments (EUR 15-25 million) and the rest possibly from European Investment Bank and EU funding related to the branching and European regional programmes or other institutional funds via bonds, credit facility or equivalent grants (EUR 15-25 million).

(45) **Duration**: The start of the measure is subject to the present Commission decision concerning the compliance with the State aid rules. Aid can be granted under the current measure until at the latest 31 December 2015.

(46) **Aid amount and intensity**: The overall State aid amount is estimated at EUR 20 million. The value of the public and private investments will not however be known until the tender procedure has been completed. The maximum aid intensity will be 50 %. The Finnish authorities confirmed that the aid intensity will not increase if following the tender it appears that the network costs amount to less than 60 million.

(47) **Mapping and coverage analysis:** According to the Finish authorities, there is a need for constructing an alternative route available for redundancy between Finland and Germany. The Finnish authorities explored the opportunity of implementing a new and direct telecommunications connection between Finland and Germany via the Baltic Sea. A preliminary study, a business plan and a feasibility study followed by a public consultation, discussions and exchanges with stakeholders at EU and international level were carried out to verify the most suitable options for implementing the new route.

(48) The Finnish authorities mapped out the situation in the Baltic Sea area by carrying out consultations with countries, different operators and infrastructure owners in the Baltic Sea Region, as described below. The Finnish authorities verified the existence of similar infrastructure or projects, as mentioned in paragraphs (34) and (36). In this context, it appeared that the possible connections via the Baltic Sea and Poland are not comparable with the proposed submarine cable in terms of redundancy, capacity and latency. The project via the Baltics, as well as the current backbone connections, link separate networks crossing several countries. If most of the traffic is routed via the same cables and cable routes, adequate connectivity is not guaranteed in the long run. In particular, the alternative route linking Russia to Frankfurt through Vilnius would not solve the redundancy problems for Finland. It also raises concerns with regard to data protection and cybersecurity.

(49) In addition, the Baltic Sea submarine cable offers quality improvement over existing connections. It would become the shortest direct connection to mainland Europe, reducing the time lag of data traffic, essential for the services provided through the network. Furthermore, a submarine cable offers a more secure connection better than the terrestrial cable, as excavation works cut occasionally the cable link.

(50) The Finnish authorities point out that during the consultations no objection was raised with regard to the proposed project. Moreover, several companies operating the alternative routes through Sweden, Finland and Baltic countries underlined the significant benefits of a new high capacity, separate and secured route

for the operations of cloud services and other business in their own areas of activity. The Finnish authorities provided the Commission with the written opinions of some of these operators.

(51) Following this preparation and verification stage, the Baltic Sea area was considered the most suitable for the targeted investment.

(52) **Public consultation**: Given the dimension of the project, to ensure transparency for all the process, the Finnish authorities carried out extended consultations in several steps, including different categories of interested stakeholders: Authorities of Member States, private operators and possible future clients of the networks.

(53) The Finnish authorities undertook a public consultation[9] between 19 April 2013 and 22 May 2013, published on a central website. The consultation concerned in particular the identification of different possibilities for building a new route, the intention of the operators to invest in these areas and their views on the current project and the award criteria considered for the tender. All interested parties were invited to express their views on the proposed project.

(54) The consultation process at EU-level gave a particular attention to the interested Member States around the Baltic Sea. Contacts with interested parties have been established by different means: high level meetings, conferences[10], public hearings, discussions and physical meetings with Member States via their permanent representations[11].

(55) According to the Finnish authorities, the comments received further to the whole public consultation process were positive. The consultation did not reveal any plans on future investments in the target areas or any comments which would make necessary to change the assumptions or the design of the project. Several parties expressed their interest to participate to the project proposed, including cloud companies and regional infrastructures owners and operators from Lithuania, Norway, Sweden, Ireland and Estonia. In particular, the operators running alternative infrastructures (i.e. current network through Sweden/Denmark and the Baltic Highway under construction) did not object to the Baltic Sea Network project.

(56) **Opinion of the National Regulatory Authority (NRA)**: FICORA was consulted on the project on an early stage, with specific attention to potential distortions to the market and competition. By letter dated 25.1.2013, FICORA delivered at an early stage its opinion concerning the design of the project, the wholesale access conditions and pricing.

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[9] The public consultation was published at the address: *http://www.lvm.fi/lvm-mahti-portlet/download?did=98841*

[10] E.g. ICT 2013 Investment Forum.

[11] On 16 July 2014, Finland organised in Brussels a meeting with the permanent representatives of the Baltic Sea region to provide an update on the Baltic Sea network project. According to the Finnish authorities, participants from Latvia, Germany, Sweden, Denmark, Lithuania, Estonia and Poland were present to the meeting and their response was supportive.

(57) On 12.3.2014, FICORA delivered an updated opinion on the basis of a complete project submitted. FICORA noted that the Baltic Sea cable is a positive and useful project as it provides an alternative route improving the redundancy of international backbone networks.

(58) In addition, FICORA appreciated the application of open and non-discriminatory tender processes in all phases of the project, pointing out that this principle will minimize the potential distortions. As the cable is to be under the ownership of a state-owned company, FICORA approved the conditions to be fulfilled as regards the open access to the subsidised networks and non-discriminatory prices. Furthermore, the Finnish authorities confirmed that they will consult FICORA about the wholesale pricing and in case of disputes between the parties. In particular, in individual cases, FICORA will take a stand on whether the pricing and other terms can be considered non-discriminatory.

(59) The Finnish authorities have also informed Berec (Body of European Regulators for Electronic Communications) and the IRG Secretariat (network of independent European telecom regulators) about the notified project. According to the Finnish authorities, the overall feedback received in the context of these exchanges was positive.

(60) **Open tender process**: An open tender process will be organised to select the private investors in the company, as mentioned in paragraph (35). Another tender will be organised for selecting the constructor of the network. The Finnish authorities confirmed that, at each stage of the project, tenders will be organised on an open, non-discriminatory and neutral basis, in full compliance with the fundamental principles of competition and transparency.

(61) **Award criteria**: The submissions received following the tender for participation to the project will be evaluated on the basis of the following criteria and weightings:

i) Efficiency in network building and total cost of the network and maintenance during the lifecycle - weight: 25 %
ii) Ability to provide financing to the project and participation on SPV directly or via partners - weight: 15 %
iii) Technology provided and cybersecurity in the infrastructure- weight: 15 %
iv) Ensuring mean packet delivery time - weight: 15%
v) Ensuring deviation of packets delivery under a certain limit - weight: 10%.
vi) Optimisation and latency in route and connections between Finland (Helsinki) and Germany (Frankfurt) - weight 15 %
vii) Operation and maintenance efficiency, tools and delivery - weight 5 %.

(62) The selection will be carried out on the basis of the most economically advantageous offer.

(63) **Use of existing infrastructure**: The Finnish authorities indicated that the measure will intervene in an area where a backbone infrastructure is not available. The aim is to build a completely new sea cable infrastructure. However, in order to avoid unnecessary and wasteful duplication of resources, the project embraces the use

of existing infrastructure wherever possible. The Finnish authorities will take into account the entire existing infrastructure which can be used in a sufficient way. In particular, the existing landing points are considered for utilisation.

(64) **Wholesale access**: The Finnish authorities explained that the wholesale services are an essential requirement of the project. Wholesale services will include transmission services, as well as collocation services. Access to the network will be offered on transparent and non-discriminatory terms to all interested third-party operators. The obligation for granting access rights is valid for at least seven years.

(65) Access to ducts will be supported, if available. Indeed, due to the nature of sea cable systems, it is unlikely that access to ducts can be provided as much as for terrestrial fibre routes. However, the network will be designed to offer access to dark fibre, access to (outdoor) shelters or (indoor) cabinets, access to installed transmission capacity, etc.

(66) The Finnish authorities confirmed that the access granted to the passive infrastructure will be unlimited in time and the access obligations will be enforced irrespective of any change in ownership, management or operation of the subsidized infrastructure.

(67) As concerns the active infrastructure, the obligation to provide effective wholesale access to third parties will apply throughout the entire period of exploitation

(68) As explained above in paragraph (56), FICORA issued a positive opinion concerning the terms and conditions for wholesale access by third parties to the subsidized infrastructure. FICORA will be also involved in disputes resolution if necessary.

(69) **Price Benchmarking**: Access prices will be subject to the requirements of transparency and non-discrimination for all operators interested to use the network. The Finnish authorities confirmed that FICORA will be consulted when setting the wholesale access prices conditions. These prices will be based on pricing principles set in cooperation with FICORA. Benchmarking criteria will be used when relevant benchmarks are available.

(70) **Monitoring and claw-back mechanism**: The Finnish authorities confirmed that the wholesale operations provided by SPV will be subject to published pricing policies and to regulatory approval and monitoring.

(71) The project provides for a claw back mechanism to prevent the selected private partners/ SPV from obtaining excessive economic benefits. Corrections of overpayments as a part of the claw back mechanism will be made on the basis of the EBITDA[12] and return on investment. Claw back mechanism shall take place when the return of investment exceeds 30%.

[12] Earnings before interest, tax, depreciation and amortization - a widely used financial indicator also in the telecommunication industry.

(72) **Transparency**: The Finnish authorities confirmed that they will provide information and sufficient data on the access to the infrastructure deployed under the current project. The relevant information will be made publicly available on the central website of the Minister. This information will include the full text of the scheme and its implementing provisions, name of the beneficiary, aid amount, aid intensity and the used technologies[13].

(73) **Reporting**: The Finnish authorities have undertaken to report to the Commission on the implementation of the scheme every other year starting from the date when the network is put into use, for the duration of the aid measure.

V. ASSESSMENT OF THE MEASURE: PRESENCE OF AID

(74) According to Article 107 (1) TFEU, "any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market". It follows that in order for a measure to qualify as State aid, the following cumulative conditions have to be met: 1) the measure has to be granted out of State resources, 2) it has to confer an economic advantage to undertakings, 3) the advantage has to be selective and distort or threaten to distort competition, 4) the measure has to affect trade between Member States.

State resources

(75) As described above, the participation of the State to the capital of the SPV is financed by resources from the state budget, which are allocated under the control of the authorities to the beneficiaries with an element of discretion. Hence, State resources are involved.

Selective economic advantage

(76) **Selected operator**: the selected operator will receive financial support which will enable it to enter the market and provide services on conditions not otherwise available on the market. Although a competitive tender procedure tends to reduce the amount of financial support required, the allocation will allow the operator to offer end-to end services prima facie at lower prices than if it had to bear all costs himself.

(77) The Finnish authorities argued that the State financial contribution would be carried out on commercial grounds to eliminate any potential negative impact on competition. As a share-holder, the government will pursue a reasonable profit for the capital investment. The expected IRR (Internal Rate of Return) to equity investors is of approximately 5%. The Finnish authorities considered that the planned investment is carried out under market term conditions.

(78) However, no more in-depth analysis or further details about the nature of the investment have been provided during the notification contacts. The information submitted did not allow the Commission to compare the State behaviour with that of a

[13] Such information will be kept for at least 10 years and shall be available for the general public without restrictions.

private investor operating in normal market conditions. In the absence of more detailed information, the Commission could not establish that the Finnish Government participates in the project like a normal market investor, according to Commission's practice (private investor test)[14]. Consequently, the Commission concluded that an advantage in favour of the submarine cable company cannot be excluded.

(79) **Third party providers**: as indicated in paragraph (42), the new subsidised infrastructure will enable third party operators to buy capacity and better international connectivity at lower prices. Thereby these operators will receive an indirect economic advantage by having access to wholesale services or benefit from the presence of public owned infrastructure at conditions that would not be available under normal market conditions without State support.

(80) **Business end users** will also benefit from the improved connectivity and better electronic communications services.

(81) The measure supporting the deployment of a new network is selective in nature in that it targets undertakings that are active only in certain regions or in certain segments of the overall electronic communications services market.

Distortion of competition and effect on trade

(82) The markets for electronic communications services are open to competition between operators and service providers, which generally engage in activities that are subject to trade between Member States. By favouring certain operators and service providers, the notified measure is therefore liable to distort competition and affect trade between Member States.

(83) Moreover, the intervention of the state can have an effect on trade between the businesses requiring international or cross-border connectivity and their competitors in other Member States. A number of undertakings could now use the new network or the services provided by the submarine cable company instead of possible alternative market-based solutions.

(84) Therefore, the fact that a new backbone infrastructure and additional (wholesale) capacity become available can distort competition and affect trade between Member States.

Conclusion

(85) Having established that the measure confers economic advantage to the company running the network and to electronic communication operators utilising the state funded infrastructure by state resources that distorts competition and has an effect on trade between Member States, the Commission concludes that the notified measure constitutes State aid within the meaning of Article 107 (1) TFEU and it is

[14] Commission Decision of 11 December 2007 in case C 53/2006 – The Netherlands, Citynet Amsterdam - Investment by the city of Amsterdam in a fibre-to-the home (FttH) network, OJ L 247, 16.9.2008, p.27

necessary to consider whether the measure can be found to be compatible with the internal market.

VI. ASSESSMENT OF THE MEASURE: COMPATIBILITY

(86) The Commission has assessed the compatibility of the scheme according to Article 107 (3) (c) TFEU and in the light of the EU Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks[15]. The Broadband Guidelines contain a detailed interpretation of Article 107 (3) (c) TFEU in this area of State aid law.

(87) As explained in paragraphs 33 and following of the Broadband Guidelines, for aid to be found compatible with the Broadband Guidelines (and thus with Article 107(3)(c) of the TFEU), the following conditions must be fulfilled:

1. The aid must contribute to the achievement of objectives of common interest
2. Absence of market delivery due to market failures or important inequalities
3. The aid must be appropriate as a policy instrument
4. The aid must have an incentive effect
5. The aid is limited to the minimum necessary
6. Negative effects must be limited
7. If these conditions are fulfilled, the Commission balances the positive effects of the aid measure in reaching the objective of common interest against the potential negative effects.

(1) Contribution to the achievement of objectives of common interest

(88) The Commission defined in its Europe 2020 strategy of 3 March 2010[16] the Flagship Initiative: "A Digital Agenda for Europe", which has the "aim to deliver sustainable economic and social benefits from a Digital Single Market based on fast and ultra-fast internet and interoperable applications, with broadband access for all by 2013, access for all to much higher internet speeds (30 Mbps or above) by 2020, and 50% or more of European households subscribing to internet connections above 100 Mbps."

(89) The objectives and measures advocated by the Commission cannot be achieved without high capacity networks based on secured infrastructures. The Baltic Sea Cable initiative is an important contribution to the implementation of these targets at EU level. A well-targeted State intervention improving the international

[15] OJ C25, 26.01.2013, p.1.

[16] EUROPE 2020 - A strategy for smart, sustainable and inclusive growth, COM(2010) 2020, page 12.

connectivity can support the growing Internet sector and economic development. The demand for data services is expected to grow at an annual rate of 40% in the Nordic countries (see paragraph (16)). In this respect, the Baltic Sea Cable infrastructure is an important part of the Finnish policy to strengthen its position as a location for the cloud computing industry. The infrastructure improves the operational reliability and the quality of its international connections, as requested by several cloud service providers (see paragraph (18)).

(90) In addition, access to very high speed, robust and resilient connectivity is critical for foreign direct investment in the areas such as data centres, web services applications server nodes, post production businesses in digital media as well as financial transaction centres. Large ICT operators are capable of attracting large scale contracts, which in turn have positive impacts on other smaller ICT players in the area. Furthermore, datacentre investors prioritize countries where telecommunications have been secured with several alternative traffic routing possibilities.

(91) Thus, the measure facilitates the development of certain economic activities, i.e the provision of electronic communications services and networks, including the provision of international connectivity, and indirectly the provision of broadband services. By establishing a direct high-capacity connection through the Baltic Sea, the Finnish authorities pursue genuine economic development objectives and the achievement of greater cohesion.

(92) Therefore, it is concluded that the present project contributes to the achievement of objectives of common interest.

(2) Absence of market delivery due to market failures

(93) As indicated in Section IV of the present decision (Description of the Measure), there is currently no direct communication link between Finland and mainland Europe. The public consultation revealed that private investors also do not see a commercial attractiveness to build such a link in the near future (see paragraph (55) of the decision). Thus, building such a direct and secure connection between Finland and Central Europe is prohibitively expensive for private investors.

(94) In the absence of a direct link, the current international data traffic from Finland to Central Europe runs mainly via a single route through Sweden. As explained in paragraph (16), there is strong growth in demand for an increased capacity. Further, the public consultation has confirmed (see paragraphs (18) and (52) to (55) that the current link is insufficient. A new direct high-capacity connection with a reduced time lag of data traffic would respond to the general cyber-security concerns and would facilitate the development of the IT sector. In the case of disruptions (most of the traffic flows via a single bridge between Sweden and Denmark), the existing infrastructure would make it very difficult to transfer traffic to other routes. For backup purposes, only a separate route can ensure adequate connectivity.

(95) As can be seen from the map in paragraph (12), apart from the existing route via Sweden a new link is planned via Eastern European countries. This planned terrestrial infrastructure, called "Baltic Highway", has a different purpose, structure

and technical characteristics, in comparison to the submarine cable (see paragraph (36)). It does not suffice to serve the required redundancy, cyber security and reduced latency. Moreover, Finland is not included in the Baltic Highway project. Therefore this future infrastructure cannot be considered to be a substitute for the Baltic Sea cable.

(96) When assessing the pros and cons of investing into such a direct sea cable link, the general benefits of the direct submarine cable link are not (sufficiently) taken into account by private investors. A private investment decision takes into account only the profitability of the project while neglecting benefits arising for third parties, if the latter cannot be (sufficiently) charged for such benefits. Arguably this applies for instance to the improved quality arising from cyber security and the existence of a back-up line to cover for disruptions. As a result, such an investment would not be privately profitable and private companies have refrained from carrying out the investment.

(97) It is therefore concluded that with regard to the direct sea cable link there exists a market failure.

(3) Appropriateness of State aid as a policy instrument

(98) The consultations carried out by the Finnish authorities showed that without further public intervention, a direct and reliable connection with Europe could not be realised. However, the construction of a direct communication network cannot be addressed by measures involving regulatory interventions.

(99) Due to the market failure, as described above, public funding of such infrastructure therefore is necessary. To keep this to the minimum, as set out in paragraph (44), the government has ensured that a significant part of the overall budget will be funded with private investment.

(100) Furthermore, it is recalled that the notified measure was consulted with FICORA, which issued a positive opinion on the design of the project. The regulator considers that the design of the project ensures that potential distortions in the market are limited to the minimum. FICORA will also be consulted about access conditions to the future cable link and if disputes arise.

(101) Hence in the current situation, State aid is an appropriate instrument to achieve the set objectives.

(4) Existence of incentive effect

(102) As set out in paragraph 45 of the Broadband Guidelines, regarding the incentive effect of the measure, it needs to be examined whether the network investment concerned would not have been undertaken without any State aid. As discussed in more detail in the context of market failure, according to the results of the public consultation and studies carried out by the Finnish authorities, no backbone network investment would take place without public funding. Hence the aid produces a change in the investment decisions of the operators. Moreover, by granting access to the public infrastructure, the measure facilitates and encourages the activities of the

data centres. Therefore, the aid will provide a direct and appropriate investment incentive for the selected operator and for third party beneficiaries.

(5) Aid limited to the minimum necessary

(103) In line with the Broadband Guidelines, a number of conditions have been applied to minimise the State aid involved and the potential distortions of competition.

(104) ***Detailed mapping and analysis of coverage, public consultation****:* The Finnish authorities have verified the existence of available infrastructure and analysed the market in order to identify the areas where State intervention is necessary. An extended public consultation has been conducted at several levels, as described above (see paragraph (52)). All the relevant stakeholders at EU-level, in particular Member States and private undertakings have had the opportunity to submit their views. The Commission notes that different rounds of discussions, including letters, conferences and physical meetings were carried out with representatives of Member States as well as with EU and international private stakeholders. The regulatory authority's opinion, both at national level as well as the EU regulatory body, has been positive. As confirmed by the Finnish authorities, no operator has objected to the project. This way, the Finnish authorities ensure that public funds are used only in areas where aid is necessary and limit the possibility of crowding out private investments.

(105) ***Competitive selection procedure*****:** To minimise the amount of aid involved, for the selection of private partners the Finnish authorities run a selection procedure in line with the principles of openness, competition and transparency in line with national and EU procurement principles. In addition, the construction of the network will be subject to a public tender.

(106) ***Most economically advantageous offer*****:** The Finish authorities designed the selection procedure so as to choose the most economically advantageous offer among those presented by the interested operators. The authorities specified in advance the relative weighting to be given to the key criteria chosen for the selection procedure.

(107) ***Technological Neutrality***: The measure will enable the interconnection to the subsidised network to any possible technology which the operators consider as the most appropriate solution. The project will allow the interconnection to the subsidised network to any customer wishing to use the infrastructure and interoperability with other networks on open access basis.

(108) ***Use of existing infrastructures:*** The new network will use existing infrastructure wherever it is possible. This way, unnecessary and wasteful duplication of existing networks will be avoided, the overall costs of the project being minimised.

(109) ***Wholesale access:*** It is noted that the objective of the project is an open access network, from which all the possible active and passive wholesale access rights are provided under open and non-discriminatory conditions. The selected operator will offer wholesale services and access to the subsidised networks to third party operators in an open, transparent and non-discriminatory manner.

(110) ***Wholesale access pricing:*** As described above and in line with the provision of the Broadband Guidelines, the submarine cable company will provide services

within published pricing policies and equivalent conditions. Its activity will be subject to the regulatory approval and monitoring.

(111) The wholesale operations provided by SPV shall at least for a seven years period provide services in an open and non-discriminatory manner with published pricing policies and equivalent conditions subject to the regulatory approval and monitoring.

(112) ***Monitoring and claw-back mechanism to avoid over-compensation****:* As confirmed by the Finnish authorities, the project will be monitored by the competent authorities. By establishing a claw-back mechanism as indicated in paragraphs (70) and (71), the Finnish authorities ensure that the recipient of the aid will not benefit from overcompensation and will minimise *ex post* and retroactively the amount of aid deemed initially to have been necessary.

(113) ***Transparency:*** As described above, the Finnish authorities confirmed that they would publish on a central website the relevant information on the measure at stake. Furthermore, third parties will be provided with sufficient information and data on the access to the infrastructure deployed under the measure.

(114) These procedures ensure that the aid amount necessary for implementing the project is minimised.

(6) Limited negative effects

(115) According to the above assessment regarding market failure, the project does not crowd out any private investment. In addition, it is mainly complementary to the existing infrastructure which directs current traffic via Sweden and will not produce significant negative effects on the operation of such infrastructure. This has been confirmed by the consultation of interested Member States around the Baltic Sea (see paragraphs (54) and (55)). Moreover, such infrastructure will only marginally be in competition or even not at all with the Baltic Highway under construction, which is not planned to reach Finland. The project therefore has only limited negative effects on existing operators (if any).

(7) The overall balancing exercise

(116) The Baltic Sea cable measure has been carefully designed to ensure that the overall balance of the effects of the measure is positive.

(117) With regard to the target areas, as explained in detail above, there is no direct international connectivity between Finland and Europe. As private operators will not develop an alternative route to the current link running through Sweden in the near future, the Finnish authorities are proposing to improve the operational reliability of Finland's international data traffic connections by a new route. The project is aiming to deploy an ultra-fast broadband network, able to satisfy sharply growing demand.

(118) For the reasons underlined above, the alternative routes, either existing or under construction, cannot fulfil the objectives of the project at stake and therefore they do not provide a substitute for the planned submarine cable.

(119) The Finnish authorities have carefully examined existing or future alternative routes. In terms of redundancy and reliability, the current connections concentrated on one single route are not considered satisfactory. For instance, a disruption on the current route affecting the payment system (SEPA) would have serious consequences for the Finnish economy. As explained in paragraph (24), the new and separate subsea cable will improve the security of the data transmissions in different ways. Thus, besides the high-speed capacity, the network will ensure cyber secure transmissions and effective redundancy in case the current network is offline. In view of these considerations, the public intervention appears as justified in order to address the persistent market failure as identified above.

(120) The project will lead to a significant increase in capacity, reliability and symmetry, beyond the upper physical limits of the infrastructure in the area. Consequently, such investment ensures a "step change" in terms of broadband availability for the target areas, in line with the requirements of paragraph 51 of the Broadband Guidelines.

(121) Furthermore, the project aims at the funding of a backbone network open for access to all operators and technologies, which as confirmed in the paragraph 81 of the Broadband Guidelines, exhibit especially pro-competitive features.

(122) The Finnish authorities have designed the measure in such a way as to minimise the State aid involved and potential distortion of competition arising from the measure.

(123) Consequently, the Commission acknowledges that by providing financial support for the deployment of a new open infrastructure in an area where direct international connectivity is currently not available, Finland pursues genuine cohesion and economic development objectives and thus, its intervention is in line with the common interest, provided the conditions set out in paragraph 78 of the Broadband guidelines are respected.

(8) Conclusion

(124) The Commission concludes that the notified measure meet the compatibility criteria set out in the Broadband Guidelines, hence the aid involved in the notified measure is compatible with Article 107(3)(c) TFEU.

VII. CONCLUSION

On the basis of the foregoing assessment, the Commission has accordingly decided to consider the measure *"Baltic Sea cable"* compatible with Article 107(3)(c) TFEU.

The Finnish authorities are reminded that, pursuant to Article 108(3) TFEU, they are obliged to inform the Commission of any plan to extend or amend the measure.

The Finnish authorities agreed to receive the present decision in the working language, namely English.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the internet site: http://ec.europa.eu/competition/elojade/isef/index.cfm.

Your request should be sent by encrypted e-mail to stateaidgreffe@ec.europa.eu or, alternatively, by registered letter or fax to:

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Yours faithfully,
For the Commission

Joaquín ALMUNIA
Vice-President