

# Final Report of the Joint Working Group Between Finland and Norway on the Arctic Railway



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# Final Report of the Joint Working Group Between Finland and Norway on the Arctic Railway

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<p><b>Abstract</b></p> <p>On 9 May 2018, the Ministry of Transport and Communications appointed a joint working group between Finland and Norway to examine how to proceed in the Arctic railway project and to determine its schedule. The working group examined the key issues in the railway routing, relating for example to the environment, permit procedures, costs, funding structure and finance model. Subgroups were established to focus on the finance issues, planning and permit procedures, environmental issues and questions relating to the Sámi. This is a preliminary report, which means that no decision on the construction of the railway or the choice of routing has been made.</p> <p>A rail connection to the Arctic Ocean would improve Finland's logistical position, security of supply and Lapland's accessibility. At present, the Arctic railway is the only significant joint project between Finland and Norway. It is also the most significant land-use project ever that has direct impact on the Sámi Homeland in Finland, which is why certain special features have to be considered. The Arctic railway would affect in many ways the Sámi culture and livelihoods, for example reindeer husbandry and its structure, reindeer grazing, and pastures. That is why when the effects of the Arctic railway on the indigenous people, the Sámi, are being assessed, it is necessary to ensure real interaction and the statutory opportunities available to the Sámi for negotiations and hearings.</p> <p>The working group's term ended on 14 December 2018.</p>			
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<b>Referat</b>	<p>Kommunikationsministeriet tillsatte den 9 maj 2018 en arbetsgrupp mellan Finland och Norge för att utreda den fortsatta beredningen av den planerade Ishavsbanan och tidsplanen för den. Arbetsgruppen granskade den tilltänkta bansträckningen bland annat med avseende på centrala frågor som rör miljön, tillståndsförfaranden, kostnader, finansieringsstrukturer och finansieringsmodeller. För uppgiften tillsattes särskilda expertgrupper för att utreda finansieringen, planerings- och tillståndprocessen samt konsekvenserna för miljön och samerna. Detta är en preliminär utredning och än så länge finns det inga beslut om att bygga banan eller om valet av bansträckning.</p> <p>En järnvägsförbindelse till Ishavet skulle förbättra Finlands logistiska position, stärka landets försörjningsberedskap och göra det lättare att resa till Lappland. Ishavsbanan är för närvarande det enda stora samprojektet mellan Finland och Norge. Det är också det största markanvändningsprojektet i Finland med inverkan på samernas hembygdsområde och projektet inbegriper vissa särdrag som kräver särskilt stor uppmärksamhet: Ishavsbanan uppskattas ha många olika effekter på samekulturen och samenäringarna till exempel med tanke på renskötseln, renbetet, betesmarkerna och strukturen för renskötseln. Därför är det nödvändigt att säkerställa en verklig interaktion och att samerna bereds möjlighet till lagstadgade förhandlingar och att de blir hörda när man bedömer vilka konsekvenser Ishavsbanan har på samernas ställning som ursprungsfolk.</p> <p>Arbetsgruppens mandattid gick ut den 14 december 2018.</p>		
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# 1 Introduction

## Objectives and basis of the work

The Finnish Ministry of Transport and Communications appointed a joint working group between Finland and Norway on May 9, 2018 to study the future progress and schedule of the Arctic railway project. The Group was tasked to prepare a proposal on the further stages and schedule of the Arctic Railway in light of the future planning of the route. The routing that was selected for further study was the Rovaniemi-Kirkenes route. The Working Group was to examine the further stages and schedule of the railway and find answers to central issues linked to the environment, authorizations and permits, costs, the financing structure and the funding model. Subgroups were set up to deal with these diverse issues – in particular the questions of financing; planning and permit procedures; as well as environmental and Sámi questions.

The Joint Working Group comprised the following members from Finland: The Finnish Ministry of Transport and Communications, the Regional Council of Lapland, the Transport Agency, the Sami Parliament, the Skolt Sami village meeting, the regional Centre for Economic Development, Transport and the Environment of Lapland, the Lapland Municipal Federation for regional cooperation and the Ministry of Environment. The Norwegian members were from The Ministry of Transport and Communications (Samferdselsdepartementet), the Railway Directorate (Jernbanedirektoratet), the County Governor of Finnmark, the representatives of the Finnmark County Authority and the Norwegian Sámi Parliament.

The study is a preliminary proposal as no decision on the construction of the railway nor on the final choice of routing has been taken. The assignment of the Working Group came to an end on December 14, 2018.

## The full members of the Joint Working Group are:

Chair	Lindström Sabina	Ministry of Transport and Communications
Secretariat	Vihavainen-Pitkänen Marjukka	Ministry of Transport and Communications
Secretariat	Rinkineva Ville	Ministry of Transport and Communications
Member	Arnesen Fredrik Birkheim	Norwegian Ministry of Transport And Communications
Member	Feodoroff Veikko	Skolt Sami Village Assembly
Member	Fjellheim Hege	Norwegian Sami Parliament
Member	Gjølme Torhild	County Governor of Finnmark
Member	Jokelainen Timo	Centre for Economic Development, Transport and the Environment of Lapland
Member	Kvalheim Eirik Vårdal	Norwegian Ministry of Transport And Communications
Member	Lohi Timo	Northern Lapland Municipal Federation
Member	Niiranen Ari	Ministry of Environment
Member	Noukka Mirja	Finnish Transport Agency
Member	Paltto Heikki	Sami Parliament
Member	Riipi Mika	Regional Council of Lapland
Member	Rimpiläinen Anni	Finnish Transport Agency
Member	Selmer Eirik	Finnmark County Authority
Member	Suvanto Tuomo	Finnish Transport Agency
Member	Vaage Jarle J.	The Norwegian Railway Directorate
Member	Ylinampa Jaakko	Centre for Economic Development, Transport and the Environment of Lapland

## Background: The February 28, 2018 Report of the Finnish Transport Agency

Together with Norwegian authorities, the Transport Agency studied the proposed Arctic Ocean Railway as part of the transport network. The report was published on February 28, 2018 and it consisted of a feasibility study of the Arctic Ocean railway, a preliminary profitability study, an examination of the alternative routes, and user needs. In addition, it analyzed potential business models, demand potential and the broader societal impact.

As regards the alternative rail connections, the report studied five different routes: Tornio–Narvik, Kolari–Narvik, Kolari–Skibotn–Tromsø, Rovaniemi–Kirkenes and Rovaniemi–Murmansk. The alternatives were analyzed on their current situation, existing plans and development needs of the connections. In addition, a cost estimate was given for the development of connections.

In order to establish the demand potential for an Arctic Ocean Railway and to assess its impact, the study looked at potential transport flows and then went on to calculate the cost-benefit ratio of the different alternatives. A further study took into account, among other things, the potential impact of the Helsinki-Tallinn tunnel to transports on the Arctic Ocean Railway. The impact assessment also looked at how the connection would affect Finland's logistical position, the overall transport system, and regions in Finland and Norway.

The report suggests that a railway to the Arctic Ocean would improve Finland's logistical position and accessibility, and connections in Europe as a whole. The railway would provide an alternative route for Finland's imports and exports. Access to the Arctic Ocean's deep, ice-free ports would open up a connection to the Atlantic and Northeast Passage. Cargo on the Arctic Ocean Railway would primarily consist of minerals, fish products, raw timber, and processed forestry products. Potential cargo would also include the natural resources of the Barents Region and products that may be shipped through the Northeast Passage in the future.

The Tromsø and Kirkenes alternatives would offer the greatest potential for passenger traffic. Passenger connections would mainly be used by tourists and they are likely to grow to be year-round services in the future.

Assessing the socio-economic profitability of the alternative routes in the report was challenging. There is great uncertainty associated with transport potential in particular, as it needs to be projected for a period of many decades. With regard to the transport forecasts of the study, all of the alternatives are equally unprofitable in a socio-

economic sense. But changes in the cost of different transport modes or in the local economy might significantly change the situation.

An Arctic Ocean Railway connection has been discussed before - there was a study e.g. in 2013 where it came up in connection with transport needs of mines. It was concluded then that it would be necessary to reserve land for the railway in the regional land use plan before it could be feasibly implemented in the future.

## The effects of the construction of the rail connection

The track would support Lapland's regional development, as the construction would contribute to the objectives in the Lapland Regional Strategic Program and the Regional Development Plan. A connection to the Arctic Ocean on one hand, and to the ports of southern Finland and possibly even as far as continental Europe on the other would enable global transport of goods to transit via Northern Lapland which in turn would create new business opportunities in the long run in the region both in Finland and Norway. The connection would improve logistical access to the Arctic Ocean from the Baltic region which in turn would contribute to the functioning and economic efficiency of the Finnish transport system in offering an alternative transport corridor from Finland to Norway and beyond to the rest of the world – and back in the opposite direction through Norway to Finland. In addition the track would enable goods and persons to be efficiently transported from Northern Norway to all over in Finland and back from Finland to Northern Norway. Further, the railway would support plans regarding for example the improvement of the port of Kirkenes.

As far as environmental impact is concerned, the construction of the railway would affect the environment in two separate ways. On a global climate scale the construction of a railway would have positive long-term effects. Railways are considered as an environmentally friendly way to travel and transport goods, and, while the construction process would have a negative carbon footprint due to emissions from machinery, concrete and steel production etc, the rail connection would cut transport CO<sub>2</sub> emissions as part of goods and passengers would shift to using a train connection thus helping mitigate climate change. To the close surroundings of the track, its construction would have far reaching effects. The track would have an impact on the scenery and environment in restricting the free roaming of game and animals and in causing detrimental noise and vibration. Individual nuisance would be caused during the construction phase in particular. The environmental impact of the railway would follow the corridor and be seen in the close proximity of the railway where other land apart from the track would be used.

The relevance of the positive and negative effects will naturally depend on the approach and the combination of alternatives, thus their precise evaluation needs more detailed analysis.

## Zero-option – no railway

Were the railway not to be constructed, Finnish Northern Lapland largely keeps its status-quo i.e. a logistical periphery where both goods and persons are largely transported on wheels on highway 4 (E75) and main road 92 from Inari to Karigasniemi. Finland would continue to be dependent on Baltic Sea routes. The transport infrastructure of the region of Lapland would remain as is.

From the perspective of regional development, the non-implementation of the railway does not contribute to the viability and attractiveness of Northern Lapland as there would not be new business opportunities alongside the new logistical connections. Future transport solutions will need to be significantly more environmentally friendly than today which will increase pressure to move transport away from road. In that case businesses will start concentrating in regions with good rail or maritime connections. Consumers will also become more environmentally aware which is likely to reflect on new modes tourists will use to travel. If the railway is not constructed, tourism will continue to use current modes of transportation and the current transport network, which might even restrict the growth of the tourism industry in the region.

The rail connection would have a clear climate impact. Were the connection not to be built, the increasing need of transport in the region would burden the current modes, principally lorries, coaches and airplanes, and would probably significantly increase greenhouse gas emissions. The environmental impact on the regional level of the non-construction of the railway would ensure the large wilderness areas to remain unfragmented. Increasing road traffic would increase the risk of road accidents and if volumes were to rise greatly, instead of building a railway, the current road network would need to be improved, which in turn would have effects on the environment.

The non-construction would not significantly change the possibilities of the indigenous Sámi people to exploit their native homeland and to pursue their culture and professional activities, but would in a way ensure their possibilities to practice the traditional Sámi livelihoods. The conditions for reindeer herding would remain much the same compared with today if the railway is not constructed, but without the railway it is likely that traffic volumes grow on current roads. This would lead to an increased risk of traffic accidents involving reindeer as the roads are not fenced (as the rail tracks would be). However, risk of traffic accidents could be decreased by developing further applications such as the “Reindeerbell” -warning system (Porokello). Pastures

would also remain much the same - unless there are changes in land use - as roads do not fragment reindeer herding areas and rotation of pastures in the same way as a strongly protected rail track.

## The Arctic Ocean Railway as part of a global comprehensive transport system

Finland is a sparsely populated country where domestic distances are long. Finland is also far from central market areas. This is why the share of transport costs in the final price of products in Finland is so high in comparison with other countries. Transport infrastructure and the functioning of transport play an important role in the competitiveness of businesses and in mobility in general.

Logistically Finland is an island and completely dependent on shipments over the Baltic Sea. It is therefore important for Finland to improve its logistical position and accessibility. Although Finland cannot change its geographical location, it can significantly improve both its logistical position and accessibility. It could become a hub for Northern European passenger, freight and telecommunications traffic.

The future competitiveness of Europe is clearly linked to the functioning of transport connections, in particular to that of the Trans-European Transport Networks (TEN-T). The European Union has determined nine strategically most important TEN-T Core Network Corridors. Finland and Sweden are linked to Continental Europe via two core network corridors: the North Sea–Baltic (NSB) corridor linking Baltic ports to North Sea ports; and the Scandinavian–Mediterranean (Scan-Med) corridor extending from Finland and Sweden to the Mediterranean Sea. These core network corridors extend to the southern areas of Finland and Sweden but they exclude the greater part of both countries from the transport network. The EU needs new alternative routes that will help avoid the most challenging transport bottlenecks. A TEN-T core network development project that will have a particular effect on Finland is the Rail Baltica line which will link the Baltic countries with Poland and Germany. Finnish cargo and transit cargo will play a significant role in Rail Baltica's demand potential, and thereby also in the profitability of the project. Part of this vision is the Helsinki–Tallinn Railway Tunnel which would connect Finland to the European rail network and improve Finland's connections to the south.

On a broader scale, the Arctic Ocean Railway is also connected to the aforementioned projects, such as the Rail Baltica and the Helsinki–Tallinn Tunnel. The Arctic Ocean Railway should therefore be seen as part of the global transport

system. A railway connection from Finland to the Arctic Ocean would improve Finland's connections to the north. The Arctic Ocean Railway would connect the Arctic region and its vast natural resources to the Finnish railway network and – via the Helsinki–Tallinn Tunnel and Rail Baltica – to Continental Europe and beyond. The Arctic Ocean Railway would provide an alternative route for Finnish imports and exports. A connection to the Arctic Ocean's deep, ice-free ports would open up a connection to the Atlantic and Northeast Passage, and thereby significantly increase Finland's transport capacity and improve its logistical position and accessibility. Thanks to this connection, Finland's significance as one of Northern European transport routes would increase.

Climate change is increasing the importance of the Northeast Passage as a connection and transport route between Europe and Asia. Increasing globalization shifts the focus of international trade and production more and more towards Asia, which is why improved connections to Asia are becoming important to Europe as a whole. The volume of goods transported and vessels navigating via the Northeast Passage is low for the time being but it is growing every year.

The Norwegian Government wishes to develop cooperation between Finland and Norway and a railway connection between Finland and Northern Norway could give substantial possibilities for growth and development. In Norway it has been decided to investigate the opportunity to develop the region of Kirkenes to become a hub of northern maritime transport. Studies about the construction of a new container port for maritime transport in Kirkenes are ongoing. The port would operate international maritime business in the Barents region.

In a 2040 perspective, the regional and municipal vision for a multipurpose container port is based on geopolitical and climatic opportunities linked to an alternative container route from Asia through the Northern Sea Route to the port of Kirkenes. The objective is for the port to contribute as a trigger for a railway to Finland from Kirkenes and further transport to the European market. The basis is climatic opportunities and shortest travel time for containers from Asia to Northern Europe, compared to the existing route through the Suez Canal. The perspective is also linked to the evolving features of the Arctic, bearing in mind Asian actors. The ambition in the short term is that the new harbour in Kirkenes will become a hub with functions such as the distribution of minerals, petroleum activity and supporting the local industry. Studies show that a full-scale port will be able to contribute with hundreds of workplaces. This again will in the long run provide further ripple effects such as the establishment of businesses both on the Norwegian and Finnish side of the border.



## Work of the Steering Group

A joint working group between Finland and Norway to explore further options was officially appointed by the Finnish Ministry of Transport and Communications on May 9, 2018.

The working group met four times during its mandate. There were three subgroups reporting to the Steering Group: a subgroup discussing financing and funding led by the Finnish Ministry of Transport and Communications; a subgroup discussing impacts on nature and indigenous peoples led by the Lapland Centre for Economic Development, Transport and the Environment, and a subgroup discussing permits and planning led by the Finnish Transport Agency. More than the Steering Group, the subgroups consisted of experts of the subject matter discussed in them. Each subgroup provided the Steering Group with thematic documentation which was used to arrive at conclusions in the Steering Group as presented in this report.

## 2 Consultations and Involvement of the Sámi People

The Arctic Ocean Railway would affect Sámi culture and livelihoods in various ways. The railway project would for instance have impact on reindeer management by affecting reindeer pasturage and reindeer pastures as well as the structures of reindeer management. Therefore, securing true interaction and the statutory opportunity to negotiate and participate are essential from the early stages of planning when evaluating the impacts of the Arctic Ocean Railway on the indigenous people. The appropriate impact evaluation of the project requires authorities to become familiar with the statutory rights of the indigenous people and to have sufficient expertise on the impacts of the planned actions in the affected region. In order to achieve this, cooperation is required, based on the negotiation obligations defined in national legislations of both Finland and Norway. From the very beginning of this exercise, it has been obvious that the impacts of the railway to the indigenous Sámi must be addressed and assessed carefully and thoroughly. It is clear that this kind of assessment should be done at a later stage, as in the time and resources of this steering group no such task could be carried out.

The operating conditions of reindeer management and the status of the Sámi people as an indigenous people are decreed in numerous acts, which requires that the project be assessed from the point of view of both reindeer management and indigenous people. These acts have been listed later on in this report. Assessing the impact of the Arctic Ocean Railway requires cooperation with the Sámi Parliament, the Skolt Sámi village meeting and reindeer herding cooperatives.

The Arctic Ocean Railway would largely impact the Sámi people and reindeer husbandry. It is likely that the rail connection would have negative effects on the indigenous Sami culture and minimizing those effects would require particularly careful planning and design. If sufficient vigilance is not ensured, a possible consequence could be a long-term conflict between the indigenous people, the government authorities, the railway operator or the other actors in the region. From the point of view of reindeer herders, the new connection would restrict their professional activity as the track would run through herding areas and pastures, and thus restrict the free roaming of reindeer using the current practice of rotation of pastures. The rail track might also increase the risk of reindeer collisions but if well designed and fenced, the incidences might not be numerous. A strong protective fence would restrict the movement of reindeer herds and their herders more than the current road network and would fragment the current herding cooperatives' lands. Furthermore, a new distraction area would form in the vicinity of the railroad, causing

problems to borderless breeding, for example excessive pasture wear. However, on the opposite side, road traffic would decrease and the numbers of road accidents caused by reindeer would come down, keeping the total number of damage relatively stable.

The Joint Working Group worked closely together with the Sami peoples' representatives in order to achieve genuine participation and consultation. To ensure that the view of the Sámi people were taken duly into account during this exercise, the representatives of the Sami Parliament and the Skolt Sami Village Assembly were members in both the Steering Group of the joint working group between Finland and Norway and in the subgroup addressing planning and permissions and the subgroup addressing impacts on nature and indigenous peoples. In addition, representatives of the Sámi reindeer herding cooperatives have been invited as full members to the Steering Group. The minutes of the meetings of the steering group as well as the final report and possible other relevant documents were translated into North Sami and Skolt Sami languages.

First negotiations with the Sámi Parliament regarding the Arctic Railway were held on 18 January 2018 in Inari along the requirement of Section 9 of the Finnish Act on the Sámi Parliament. The negotiations concerned the Arctic Railway Report and the effects of the project on the Sami people. The Finnish Transport Agency published the Report on February 28, 2018. Also authorities in Norway and Sweden engaged in consultations with the local Sámi people. The Sami Parliaments were supplied with material about the study before the consultations. Information about the situation and planning of the project were exchanged during the talks, and also issues that should be taken into account in planning as regards the effects of the project to the Sami indigenous people. The general talks with the Sami Parliament concentrated in discussing the study of the Transport Agency and other issues that need to be taken into account when planning such a project.

The Sami Council sent a letter on September 12, 2018 to the Ministers of Transport and Communications of Finland and Norway expressing their concern over the continued study of the construction of the Arctic Ocean Railway. They requested that special attention is paid to the special characteristics and professional activities of the Sami culture. The Council requested the immediate launch of an impact assessment of the potential railway so that the Sami Council and Sami title holders can rightfully participate and contribute in a genuine and appropriate way in the further study of the project.

Minister Berner in her reply to the Sami Council on September 14, 2018 underlined that the Ministry of Transport and Communications has paid particular attention to the Sami question in connection of the work of the joint working group between Finland

and Norway. Under the auspices of the Steering Group there is a subgroup discussing questions relating to indigenous people which looks at nature, environment and the Sami questions.

One of the subgroups of this steering group examined statutory procedures and environmental laws. The subgroups task was to establish the necessary measures to safeguard the position of indigenous people and to respect statutory procedures in both countries. This requires following regulations in the Finnish Constitution and other legislation such as the Act on Reindeer Husbandry and the Act on the Sámi Parliament as well as relevant Norwegian legislation such as the Sami Act, the Finnmark Act and the Planning and Building Act. The subgroup addressed in particular the safeguards to practical participation and consultation of the indigenous people. In assessing the impact of the project on nature and the Sami people, the subgroup made use of available data on the natural environment and e.g. the studies made in connection of the regional land use planning in Northern Lapland.

It is important for both Finland and Norway to ensure the equal status and genuine participation of the Sami representatives in the further studies, including the Norwegian and Finnish Sámi Parliaments and the Skolt Sami Village Assembly. Both countries are committed to promoting the implementation of the UN Declaration on the Rights of Indigenous People. Timely discussions to take into account the indigenous Sámi people aiming to reach their free, prior and informed consent will be continued in connection with the Arctic Railway project.

## 3 Subgroups

### Subgroup on Financing

The subgroup on financing has been led by the Finnish Ministry of Transport and Communications. As part of its work, the subgroup has ordered two different studies from consultant companies. The first study was ordered from CAPEX Advisors and it studied thoroughly different financial structures whereas the second study by the Finnish Consulting Group addressed the impacts of the railway on the tourist industry in the region. Both of these studies have been steered by the subgroup and the subgroup as well as the steering group have commented on the work of the consultants and their findings. These findings will be further addressed in the conclusions of this report.

Based on the Sitowise study from 2017 the expected cost of the selected routing, Rovaniemi-Kirkenes, would be around 2,9 billion euros. The investment costs of the Kirkenes routing would be around EUR 2 billion on the Finnish side and around EUR 0.9 billion on the Norwegian side. These numbers are uncertain and experience shows that project cost may increase substantially as planning progresses. Therefore, it is clear that this project cannot be carried out by traditional state budget funding, but that alternative models for financing must be considered.

### Financial Structuring Study

The report by CAPEX Advisors describes some background issues that need to be accounted for in financing of infrastructure projects. The study takes into account different stakeholders and right holders of the project and their incentives to be part of financing the project. It also looks into several different financing and delivery structures and examines their pros and cons as well as their suitability for financing the Arctic railway. The study focuses on the risks and liabilities of these different structures and assesses the willingness of project stakeholders to accept these. Further, the viability of the project as a whole is assessed.

The analysis of alternative models for financing is an interesting subject especially for Finland as the Ministry of Transport and Communications and the Finnish Transport Agency are preparing for their first 12-year plan for traffic infrastructure investments in an environment where there is an increasing supply of private financing interested in low risk, stable infrastructure projects to invest in. The study of financial structuring has been commissioned to describe and compare various financing alternatives for

the Arctic Rail Line project. For this reason, a “project financing” approach is taken, where the project is seen as a whole and the financing and contract models are tailored to suit the project characteristics.

Based on previous studies the overall project poses significant challenges, the most central issue being the low benefit levels that the large investment would produce, based on current estimates. According to the transport volume estimate of the previous study, none of the alternatives for routing is socio-economically feasible. Furthermore this financial study indicates that an annual transport volume of approximately 2,5 million tons is needed to cover the yearly maintenance costs. However, changes for example in the costs of different transport modes or in the region's business and industry may significantly change the situation. A functioning rail connection to the deep-sea harbours in the Arctic region would however improve the logistical positioning of Finland, the accessibility of Lapland and the security of supply in Finland. In addition, the railway has challenges regarding environmental impact and the effect on the Sámi people which can carry political and reputational liabilities that must be addressed. Additionally, the project agreements and organisational structure would have to account for the cross-border characteristics of the project.

From a financing perspective, the project stakeholders are of central importance, because for the project to be financially viable, there have to be parties willing to pay for the project. This applies for both public and private financing models (socio-economic potential vs. financial potential). So far none of the identified stakeholders have committed to using or paying for the track. The project has a number of different stakeholders. For this analysis the emphasis was put on the willingness and interest of these stakeholders to provide the project with inputs/resources that would contribute towards the financing capacity and financing model of the project.

In further development phases of the project the stakeholder analysis should be deepened and ensured that the various parties agree with the roles (amount of benefits, possible risks, available resources, interests to develop the project) that are expected of them in the project. This is especially true for the parties that are expected to pay for it.

## **Study on the Possible Impacts of the Arctic Rail Line on Tourism**

The aim of this task was to study the possible impacts on and potential for tourism of the Arctic rail line. In this study, the growth potential for tourism was evaluated, as well as the economic impacts by the year 2030 without the railway and when the railway is

in use in 2030. In particular, the impact of the railway on the potential tourism growth of the areas surrounding proposed stations (Sodankylä, Inari) was examined. In addition, the railway's impacts on Kirkenes were also taken into account in the evaluation.

Political, economic, social, technological and environmental factors all have a significant effect on the planning and development of tourism, including travel by rail. The fact that the construction of the rail line would take until 2030 makes calculation of precise numbers of tourists as well as income and employment estimates, among others, challenging to calculate.

Climate change, the many positive aspects of rail travel and trends in tourism support the growth of travel and tourism by rail. Measures possibly affecting air travel, such as the aviation tax, support rail as an alternative mode of travel. Customers travelling to Lapland are aware of environmental issues, and rail is a low-emission option.

According to the performed study, any measures that improve accessibility are desirable from the point of view of tourism in Lapland. The Arctic rail line would introduce a new alternative for reaching Lapland's tourist destinations and connect Lapland to the larger entity of the Arctic region. The arrival of trains would also strengthen the area's independence from air traffic. The potential Tallinn tunnel was also seen to affect the accessibility of Lapland from European markets and the travel decisions of travellers coming from elsewhere in the world.

Tourism in Lapland is expected to grow by 6% annually until the year 2030. It is estimated that tourism demand will double between 2015 and 2030, at which time it will exceed € 2 billion annually with the direct impact on employment reaching about 18 000 person-years. These growth estimates will be reached if development measures set out for Lapland tourism are carried out, accessibility is ensured, the required funding is directed toward tourism development and promotion and unexpected events that would negatively affect tourism in Lapland do not occur in security factors and the development of the global economy, among other things. During construction of the railway, about 12,000 – 14,000 people in the region of Lapland will be affected in terms of employment according to a previous study. Some of these will also be in tourism sectors such as accommodation and restaurant services.

The Arctic Ocean Railway may contribute to new opportunities and new investment in tourism, including ones that cannot yet be foreseen, thereby offering potential for the tourism industry in the region. In addition, the accessibility of Lapland would improve significantly, especially during the summer period. However, at this stage of the process, it is difficult to provide accurate estimates or concrete numbers of the impact

on tourism and proper evaluation should be done later on in the process. It is clear though, that there are several preconditions for the railway to be interesting from the point of view of the tourism industry. Some of the preconditions are assessed in the conclusions of this report.

According to regional authorities, the growth potential for tourists visiting the Finnmark region both in summer and in winter is mainly related to tourists arriving or departing from Kirkenes with the coastal liner “Hurtigruta”, or using the Kirkenes airport for local and regional tourist experiences. There are concrete plans for direct flights between Asian countries to both Kirkenes and Rovaniemi, and already today, the air traffic in Lapland is growing rapidly. A railway to Kirkenes could contribute to the strengthening of tourism cooperation and growth with Lapland in particular, through increased coordination of regional experiences on both sides of the border, and more varied transport solutions.

## Subgroup on Permissions and Planning

The subgroup examining the relevant permissions and planning was led by the Finnish Transport Agency. This subgroup considered thoroughly the permissions and planning that would be needed both in Finland and Norway in order to build an Arctic railway. The objective of this study was to investigate the preconditions of the construction of the Arctic Railway from Rovaniemi, Finland to Kirkenes, Norway. As part of this work, a report was ordered from the consultant company Sitowise. The work and report is based on the feasibility study by the Finnish Transport Agency, published in March 2018. More studies about the alignment Rovaniemi–Kirkenes will be done in the process of the draft of the General Land-use Plan of North Lapland, which is at the moment being drafted, the first draft supposedly to be distributed in early 2019. The report by Sitowise introduces extensively the different stages of an infrastructure project both in Finland and Norway. All relevant permissions and legislation regarding them were briefly introduced

## The Process in Finland

The planning and construction of the Arctic Railway is a long process that requires the implementation of several planning stages from pre-feasibility studies all the way to the construction planning of the actual building project. Before the actual construction plan a project as large as the one studied must in Finland be addressed in several land-use plans, namely regional, master and detailed plans, before the final construction plan can be approved and construction undertaken. If, however, the proposed railway is considered significant on a regional or national level and has far



reaching impacts and a long time span, the appropriate level of planning to be legally binding is the regional land-use plan. This is the case for the Arctic Railway, as local master plans or local detailed plans exist only for the few built-up areas and tourist attraction centres in the area. Therefore, the drawing up of the general plan for the Arctic Railway may be initiated already before the 2040 Regional Land-Use Plan of Northern Lap-land has taken legal effect.

The stage for the general plan lasts at least three years, after which, the railway-plan stage can be initiated. Several years may pass between the completion of the railway plan and the decision to finance the construction of the project. The process also includes several hearing and appeal opportunities. The railway plan cannot be approved without a legally binding statutory land-use plan meaning that the start of actual construction is not possible until a legally binding statutory land-use plan has been approved.

Important permissions prescribed by Finnish legislation include:

- Permits in accordance with the Nature Conservation Act
- Permission to extract soil materials
- Landscape-work permit
- Trespassing permit and notice in accordance with the Antiquities Act
- Permission to demolish a building
- Construction permit
- Permission to plan public roads
- Level-crossing permit
- Planning permission for minor construction
- Examination permit
- Examination right
- Environmental license and notices in accordance with the Environmental Protection Act
- Permit in accordance with the Water Act (permit from a regional state administrative agency)
- Centres for economic development, transport and the environment
- Public-use permit of maps, aerial photos and other pictures
- Permission to move and operate within railway area

## The Process in Norway

Likewise as in Finland, Railway-planning in Norway is a time-consuming process. A recent report from the Office of the Auditor General into planning times for large road and rail projects surpassing NOK 750 million has found that the average time from

starting a Concept Evaluation to an Appropriations Bill being passed in Parliament is eleven years and five months.

In order to understand the planning processes and the calendar time it takes to advance an infrastructure project from conception through planning and implementation to construction and eventual revenue service, the reader must appreciate that the project has to work two parallel, yet interconnected, processes:

- Planning in accordance with the Planning and Building Act (including the quality assurance scheme)
- National Transport plan (NTP), in order to obtain priority and subsequent funding.

The Norwegian Railways Act states as a general principle that planning and construction of railways are subject to the provisions given in the Planning and Building Act, whereas the Ministry of Transport and Communications may issue technical and administrative regulations. The same principle of referring planning processes to the Planning and Building Act applies to other infrastructure projects and modes of transportation as well. According to the Planning and Building Act, the planning authority is devolved to state, regional and municipal levels, with local municipalities being the main planning authorities.

Since the year 2000, the Norwegian Government has implemented a two-stage quality assurance scheme for public investment projects with estimated budgets of more than NOK 750 million. The quality assurance scheme requires a Concept Evaluation (konseptvalgutredning) and two different external reviews before a project can be approved and funded. The first review provides quality assurance of the choice of concept at the end of the preliminary-study phase. The purpose of the first quality assurance (kvalitetssikring) is to ensure that the decision to start a preliminary project and the choice between alternative concepts are subject to political control, and that the documents comprising the decision base are of the required quality. Based on recommendations from the quality assurance process, the Government decides whether to allow the project to continue into the planning phase.

During the planning phase, two plans are made – the municipal sub-plan (kommunedelplan) and the zoning plan (reguleringsplan) detailing land-use regulations for the project. Prior to both plans, separate planning programs – that is, “plan of the planning process” – are prepared and subjected to consultations before being determined by the municipal council. Before the project is submitted to the Parliament for approval and funding the next phase of quality assurance of the management base, cost estimates and contract strategies are performed for the chosen alternative. This second quality assurance provides guidance for contingency

reserves and how the project should be managed to maximize success during implementation.

A twelve-year National Transport Plan outlines the resource priorities of the Norwegian Government within the transport sector. The plan is revised every four years and provides a comprehensive basis for the decisions within the sector to ensure efficient use of resources and interactions between modes of transport. The Norwegian Public Roads Administration, the Norwegian Railway Directorate, Bane NOR SF, Avinor AS and the Norwegian Coastal Administration provide input to the National Transport Plan with regards to investment projects, strategies, priorities and policies.

The current plan covers the years 2018 to 2029 and provides a comprehensive basis for decisions within the sector to ensure an efficient use of resources and interactions between modes of transportation. Work on the upcoming revision in 2022 has already begun, and the agencies for road, rail, air and sea transport will provide input to the NTP with regards to investment projects, strategies, priorities and policies at the end of the year 2019.

## Subgroup addressing impacts on nature and indigenous peoples

The Impacts on nature and indigenous peoples –subgroup has been led by the Centre for Economic Development, Transport and the Environment of Lapland. The subgroup's assignment given by the steering group was to point out and describe how impacts on nature and indigenous peoples are to be evaluated and how to ensure and secure the status and participation of indigenous peoples in such a megaproject taking into account all statutory procedures and legislation.

Work in this subgroup has been carried out as part of ordinary official duties both in Finnish and Norwegian authorities relevant to the topic, including representatives of the Sámi parliament and Skolt Sámi Village Committee in Finland as part of their role as elected persons in a position of trust. The Sámi reindeer herders were also invited to be a part of the subgroup, but a representative was not appointed. The representatives of the Centre for Economic Development, Transport and the Environment of Lapland and representatives chosen by the Sámi community met in Inari on the 9<sup>th</sup> of October 2018. In this meeting, the Sámi Parliament of Finland, along with the Skolt Sámi Village Assembly and the Sámi Reindeer herder's association (Saamelaispaliskunnat ry), left a statement pointing out questions on

language issues, the obligation to negotiate and adequate resourcing, which should be taken into account in the process. This document is a good listing of relevant issues and will be further analysed in the conclusions of this report. The document was also sent to the Finnish Minister of Transport and Communications.

The focus of this subgroup has been on how to ensure the proper involvement and participation of the indigenous Sámi. Regarding this, the subgroup has looked into the legislation regulating processes that might have effect on the Sámi. As an outcome, the subgroup has produced a listing of statutory legislation both in Finland and Norway regarding infrastructure planning in general with special attention regarding the special conditions of the Sámi homeland.

Relevant legislation in Finland:

- The Constitution of Finland
- The International Covenant on Civil and Political Rights
- The International Covenant on Economic, Social and Cultural Rights
- The Act on Environmental Impact Assessment Procedure
- The Espoo Convention
- The Nature Conservation Act
- The Land Use and Building Act
- Government Decision on Finland's National Land Use Guidelines
- The Act on the Sámi Parliament
- The Sámi Language Act
- The Skolt Act
- The Reindeer Husbandry Act
- The Water Act
- The Wilderness Act

On the Finnish side, the right of the Sámi to maintain and develop their language and culture is secured in section 17 of the Constitution of Finland. Section 9 of the Act on the Sámi Parliament requires authorities to negotiate with the Sámi Parliament in all far-reaching and important measures, which may directly and in a specific way affect the status of the Sámi as an indigenous people and which concern community planning, and the management, use, leasing and assignment of state lands, conservation areas and wilderness areas in the Sámi homeland, among other things.

Traditional Sámi livelihoods, such as reindeer herding and fishing, are preconditions for maintaining and developing the Sámi culture. The Finnish Reindeer Husbandry Act regulates the carrying out of reindeer husbandry within the area of reindeer husbandry. Section 2 of the Act defines the reindeer herding area and the area specifically intended for reindeer herding. Section 2 also states that land in this area

may not be used in a manner that may significantly hinder reindeer herding. The right to practice reindeer herding is secured in Section 3 of the Act, and the consulting obligation in Section 53.

Relevant legislation in Norway:

- The Consultation agreement between Norwegian State and Sámi Parliament
- The Sámi Act
- The Finnmark Act
- The Planning and Building Act
- Environmental Impact Assessment (EIA) legislation
- The Biodiversity Act
- Water Framework Directive (WFD)
- The Espoo convention
- Legislation concerning outdoor life
- The Cultural Heritage Act
- Indigenous and Tribal Peoples Convention (ILO-convention 169)

In Norwegian legislation, a similar structure to ensure the position and recognition of the indigenous Sámi people is in force. The Consultation agreement between State Authorities and the Sami Parliament in Norway asserts a right for the Sami people in Norway to be consulted in matters that may affect them directly. The objective of the Consultation agreement is to contribute to the implementation of the State's obligations to consult indigenous peoples under international law. The parties shall seek to achieve agreement whenever consideration is being given to legislative or administrative measures that may directly affect Sami interests.

The purpose of the Norwegian Sami Act is to enable the Sami people in Norway to safeguard and develop their language, culture and way of life. The Act contains provisions on the Sami Parliament and the financial liability of the State, among other things. The Norwegian Government has proposed to make consultations part of Norwegian legislation through the adding of a chapter on the duty to consult into the Sami Act. Whether or not the proposed amendment of the Sami Act is adopted, it is recommended to start a dialogue with the Sami Parliament at an early stage, to ensure that Sami viewpoints are heard from the outset.

The Finnmark Act attempts to strengthen Sami rights by giving the entire population of Finnmark greater influence of land in the county. An important element of the act is the discussion and recognition of existing rights of use and ownership of land. The act does not apply to fishing rights in saltwater, mining, or oil rights.

## 4 Conclusions

### General findings

Based on the reports by the three subgroups and on discussions within the steering group, the steering group concludes the following:

The assignment of the steering group was to examine further the prerequisites of building an Arctic railway as well as provide for follow-up actions and timelines to be taken into account in possible further planning. A railway project this size is so complex and involves so many stakeholders and factors that in the time and resources given it has not been possible to properly assess all of the issues regarding the Arctic railway –project. It must be emphasised that this was never the intent of this steering group and performing specific impact assessments was not included in the original assignment. Some of the factors depend on further decisions on the political level and can only then be properly assessed and evaluated. Many questions still remain open and can only be answered if the project is taken to a further level.

The planning and construction of the Arctic Railway is a long process that spans over several legislative periods and would have long lasting impacts in the region as well as nationally in both countries and further on an international level. According to the indicative timeline for the planning and construction process drawn up during this exercise, even if work was started immediately the time span for construction would be at least 15 years. The precondition to start the planning process is a preliminary decision in both countries to actually carry out the project. This means that both in Finland and Norway the railway is to be included in the National Transport Plans as a prerequisite to more detailed planning.

The process requires the implementation of several planning phases starting with pre-feasibility studies going on to land-use planning and finally to the construction planning of the actual building project. As with all major infrastructure or other construction projects, because of the contradictory attitudes of different stakeholders towards the project, appeals may prolong the process by several years. The involvement of different stakeholders is ensured in both Finnish and Norwegian legislations and must be taken into account in the timespan of possible planning and construction phases.

One factor that rose up during this exercise, which significantly affects the operational preconditions of the Arctic Railway is, how it is linked to the existing rail network.

Therefore, the vision of an efficient, fast and functioning link from the Arctic Ocean to Europe relies on the capacity of the Finnish main train line (Helsinki-Oulu). At current, the capacity of southern parts of the existing main train line cannot bear significantly more traffic. The full exploitation of the Arctic Railway would require first and foremost, increasing the capacity of the Finnish main train line, especially the most operated part between Helsinki and Tampere. This would include improvement of the condition of the railway and removal of local speed limits. In this way, there would be more capacity on the existing rail network enabling increasing freight transports as well as a possibility to shorten travel times to Lapland from current.

## Financing

It was known in advance that, due to the significant costs of the construction and a relatively low projected use capacity, the project will not be financially feasible with any of the financing models examined in the report by CAPEX Advisors. The report examines the positive and negative aspects of the suggested models for project financing and delivery and suggests, based on the preconditions for their desk top study, that a public owned company model may seem to be the most viable model. However, while it is useful to know the pros and cons of available financing models, it is outside of the steering group's mandate to recommend any specific model. This will require more in-depth studies analysing also the wider economic impacts, as well as political considerations to match the significance of the project.

Private financing could be a more viable alternative if the project could generate direct income to cover the additional cost of financing. At the current projected level of profitability this cannot be seen as a substantial opportunity. If project development activities can be linked to the identification of stakeholders and engagement to funding the project, it can over the long term improve the perception of the project's capacity to fund itself.

Risks and variations such as technical risks, transaction costs, taxation, guarantees, market situation etc. would in practice have a significant effect on the cost that can be evaluated and eventually on the final cost of the project. Also, questions regarding ownership and control power or requirements for law and state policy changes would present a range of requirements and constraints to the project model to be chosen.

It is highly uncertain that there are private investors that are willing to contribute with a larger part of the necessary financing. Tourism could contribute with revenue for the Arctic Railway, but far from enough to finance or justify building the project. Different financing models have been identified, but not enough to conclude on a specific

model. It will take many years from initiation of the planning process of the project to project realisation. The planning systems in Norway and Finland have been mapped and are quite different. It will be important to take this in to consideration if/when the project should be planned so it will coincide with both planning systems.

## Planning process

The legislation of both Finland and Norway require certain statutory phases for the execution of the project. In Finland, construction cannot be undertaken before the statutory general and railway plans have been drawn up, even if a decision to finance the project has been made. Norway has a long-term national transport plan (NTP) in place. The current national transport plan has a twelve year span, from 2018-2029 and will be next revised in 2021-22. A project of this size cannot be included in this plan unless the planning process is at an adequate level. This means that even if the decision to proceed was done immediately it is unlikely that the stage of planning would be sufficient for the railway project to be included in the next revision of the National Transport Plan.

If planning is to be continued, it should be based on the statutory planning processes in the respective countries. In Norway this would be to initiate preparations for a Concept Evaluation, in which the environmental impact assessment procedure should be conducted as extensively as possible. In Finland, the stage for the general plan lasts at least three years, after which the railway-plan stage can be initiated. Several years may pass between the completion of the railway plan and the decision to finance the construction of the project. In large infrastructure projects such as this, the environmental impacts should be assessed at as early a stage as possible, before the drawing up of the general plan. When assessing the environmental impacts, an emphasis should be put on determining the impacts on Sámi homeland, Sámi language, culture and livelihoods, on minimizing the adverse impacts on traditional Sámi livelihoods, including the reindeer industry as well as on drawing up and investigating the measures to prevent of environmental damage.

## Impact assessment and interaction

The impacts of the proposed railway would be various. For proper assessment, cooperation between different authorities, stakeholders, right holders and other players is crucial. Participation and citizen's possibilities to be heard are addressed in several legally binding acts and at several stages. One of the key elements of these



statutory processes is to involve the stakeholders and right holders in the process and only in this way can the level of proper impact assessment be met. Furthermore, because the project stretches over national borders, it is of utmost importance to also take into account cross-border impacts as well as international legislation regarding impact assessments. Finally, socio-economic impacts should be studied further, also taking into account wider economic impacts.

There are several processes where environmental impacts are assessed. The main objective of these processes is to identify all the impacts the railway project would have on the environment as well as consider possibilities to, with for example technical solutions, minimize or better even, prevent, effects caused to nature. While drafting the planning process, it is important to fit together and schedule the different processes into one entity to ensure that the outcome is a thorough and extensive impact assessment taking into account all factors.

International law as well as national legislation both in Finland and in Norway address and recognise several procedures that must be taken into account for the project to adequately take into account the internationally recognized special status of the Sámi people and their right to the Sámi homeland, language and culture. Only after these special needs have been taken into account in due form can the project reach legislative acceptance regarding the rights of indigenous peoples.

It is crucial that the Sámi people, especially the reindeer herders and others directly affected by the possible railroad, are included in this kind of processes at an early stage of the process. Thus, it is possible to settle all the adverse impacts on traditional livelihoods i.e. reindeer herding and the environment in addition to the effects on the preparation of reasonable prevention measures. Facilitating participation, meaning interaction with the parties potentially affected by the project, is one of the key objectives of statutory assessment procedures. Ways for facilitating this participation include different types of negotiations (including statutory negotiations with the authorities), steering or monitoring group work, small group meetings, public events and circulation procedures. Therefore it was evident, that in this exercise Sámi representatives were to be appointed as members of the steering group.

## Tourism in Finnish Lapland

Tourism is an essential topic when considering major projects in Lapland. From the point of view of tourism, stations should be located as close as possible to tourist destinations and clusters of tourist attractions. Connecting transportation between stations and key destinations should be arranged, and it should be scheduled in a

customer-friendly way. Rail connections do not matter much if feeder transportation is not functional.

The Arctic rail line would be likely to bring new opportunities and new investment to tourism, including ones that cannot be yet foreseen. In addition, with the train, the accessibility of Lapland would improve, but the investment in the railway cannot be justified by tourism alone. The railway connection of the Arctic rail line will have a positive impact on the image of tourism in Lapland, especially from the point of view of sustainability. On the contrary, the opposition of part of the Sami community, based on the predicted negative impacts on traditional Sámi livelihoods such as reindeer husbandry, Sami culture and the area's natural environment, will negatively affect also the image of the railway and its construction and thus, tourism.

## 5 The Steering Group's Recommendations for Follow-up Actions

The Arctic railway is the only major cross-border project being discussed currently between Finland and Norway. It is also the most significant land-use project ever that has direct impact on the Sámi Homeland in Finland. Therefore, there are some factors unique to this endeavour that must be given special notice.

Firstly, because of its nature as a binational project, it is of utmost importance to closely co-operate between the two state administrations if pursuing with the planning. The two national processes must be inter-combined at an early a stage as possible to ensure that planning follows and is in line with the processes of both countries. As Finland is gradually moving towards its first 12-year National Transport Plan, the way Norway already has, poses this a challenge to the scheduling of the planning process. This must be addressed at an early stage of possible future planning. According to the proposed plan of action in Finland, the two national plans are likely to run in a different revision cycle to each other. This must be taken into account to ensure seamless planning between the two countries as it is clear that in a project of this size, a successful outcome can only be achieved, when co-operation between the states involved and their different administrative bodies works effortlessly. Therefore, if continued, a possible step could be a cross-border study on how to best combine these planning processes.

Secondly, in future planning, the participation of the indigenous Sámi people must be given special significance to ensure that no irreversible harm to the culture, livelihood or relations between the national administrations and the Sámi governance is caused. The Sámi parliaments of both countries should be represented as equal members of possible future working groups regarding the Arctic railway. Both international law and national legislations of Finland and Norway acknowledge the special status of the Sámi as an indigenous people. This cannot be denied nor passed in possible future phases of the Arctic railway. Further consideration must be given to the provisions on the right of the Sámi to use the Sámi language before the authorities, which are laid down in the Sámi Language Act (1086/2003).

Simultaneously with the states-led prefeasibility study of the Arctic railway there is similar planning on the Finnish regional level, in the regional land-use plan of Northern Lapland. These processes are not connected to each other, and the Finnish government has no influence on the land-use planning due to the regional land-use plan autonomy, based on the regional self-government and regulated in section 26 of the Land Use and Building Act, originally from 1999, last amended 2018. Regional level planning is done at a more technical level, addressing more closely possible land-use purposes, whereas this Working Group has addressed the issue at a broader level, taking widely into consideration different aspects of such a project. Further impact studies will most likely be included in regional level planning. Drawing up a regional plan and other regional planning is the charge of the joint municipal board (regional council), of which the area's local authorities must be members. Therefore, this steering group cannot take a stand on the studies being performed in the regional planning process nor on the inclusion of a provisional railway line in the regional plan.

The vision of the Arctic railway is one part of a larger whole. It is highly dependent on several other large infrastructure projects or visions, including the new port of Kirkenes, the proposed Helsinki-Tallinn tunnel and the Rail Baltica railway project, but also of more practical projects, such as the renovation and upheaval of the Finnish main train line, most urgently the Helsinki-Tampere line. To gain feasibility for the Arctic railway, it should be planned to link optimally with other parts of the transport system and planning must be part of the public transport, goods and passenger transport services on both national and European level.

In the best scenario, an Arctic Railway from Rovaniemi to Kirkenes along with the Helsinki-Tunnel and Rail Baltica could be significant for entire Europe by opening a fast connection from Central Europe to Northern Europe and further to Asia via the Northern Sea route. This however requires that the planning and background work in these projects has to be of very high quality and must be carried out so that also the European Union is behind this entirety of several infrastructure projects. Furthermore, one must also find ways to finance these projects, as it is clear that the Arctic Railway along with the other projects mentioned, requires funding from several sources. Funding will be needed from the EU, but also from the private and public sectors. The extension of the TEN-T core network corridors (the North Sea-Baltic and Scandinavian Mediterranean Corridors) anticipates the growing importance of the Arctic region globally and for the EU. There should be a way to assess indirect benefits of the project taking into account great increase of transports and possible future activities on the Northern Sea Route.

Both the report from 28 of February from the Finnish Transport Agency in cooperation the Norwegian Railway Directorate and this report show that the development of an Arctic Ocean Railway would be a very comprehensive project with many stakeholders and considerations. The project will have effects on a number of stakeholders. There are international and national conventions and regulations to ensure that important interests and stakeholders are preserved. Parts of these regulations are now mapped on a macro level. It is important that these regulations are thoroughly handled if/when the project is going forward.

## 6 APPENDIX:

### 1: Hearings of some stakeholders regarding the Arctic Railway

As set out in the steering group's assignment, one of the key elements of the steering group's work was to hear stakeholders to find out their outlook and possible prospects on the proposed railway. Therefore, in September 2018, the Finnish Ministry of Transport and Communications sent invitations to Finnish stakeholders asking whether they wanted to be heard by the joint working group between Finland and Norway on the Arctic Railway. The following parties were contacted: The Finnish Defence Forces, The Finnish Ministry of Defence, The National Emergency Supply Agency, The Confederation of Finnish Industries, The Chamber of Commerce of Lapland, The World Wildlife Fund and The Finnish Association for Nature Conservation. Stakeholders already represented in the steering group were not seen as relevant to be heard separately. In total, three sessions were held during October 2018, which involved the Finnish Defence Forces, the Confederation of Finnish Industries and in a joint session the World Wildlife Fund and the Finnish Association for Nature Conservation. In addition, the Ministry received a written statement from the Finnish Sámi Organisations (The Sámi Parliament, The Skolt Sámi Village Committee and the Sámi reindeer owners' association), the Saami Council and the Four Winds association.

#### Finnish Defence Forces

The Finnish Defence Forces commented mainly on the railway line's effect on the security of supply and defence political aspects. In this regard, the Defence Forces commented for example on the routing of the proposed railway and reminded that army facilities in the region should be taken into account in planning. In overall the Defence Forces sees the project as a positive one as it among other things improves the defective infrastructure for heavy traffic in Northern Finland.

#### Confederation of Finnish Industries

The Confederation of Finnish Industries is not likeminded that the now examined routing to Kirkenes is the most favourable one. The confederation stated that a similar research of prerequisites should be done for all of the four main routings proposed earlier. It is not at all certain that Finnish industries would use the railway as their

primary transport route even if it was built and that also connections to Russia and the transport needs of the Karelian and Kola Peninsula industry should be taken into account when considering the routing. The confederation stressed that a thorough dynamic impact assessment should be done which focuses especially on the existing infrastructure including ports, fairway costs and traffic amounts as well as climate aspects.

In the eyes of the tourist industry any routing is seen as having a positive impact. However, it was pointed out that tourism and passenger traffic will not by any means make the railway line financially feasible on its own. The confederation reminded that also the forest industry must be involved in the discussions. The confederation concluded that it does not support building the railway line to Kirkenes at the time being, but is ready to revise its opinion in the future if the prerequisites change in a significant way. Therefore it is supported that a provision for the railway is included in the upcoming Regional Land-use plan.

## **World Wild Fund for Nature and The Finnish Association for Nature Conservation**

The nature protection organisations were most concerned on the cumulative effects of such a project. The railway could cause growing interest in exploiting the Arctic natural resources and use of the forests of Northern Lapland, which is not acceptable. This would further have a negative effect on biodiversity. The organisations reminded that such actions are against the very own targets on sustainable development of the Finnish government and therefore contradictory with the climate policy of the government.

The organisations stated that the suggested routing would pass through globally recognised waterways, groundwater areas and other nature reserves and this should especially be taken into account in considerations. Also, it is clear that the railroad would have effects on reindeer herding as well as the Sámi culture and livelihoods. Procedures such as the Akwé: Kon –guidelines and the Arctic Climate Impact Assessment were mentioned as relevant. The organisations stressed that further negotiations and procedures must be adequately resourced and take into account the national and international legislation on the rights of indigenous peoples, especially their right to participate.

## 2: The Regional Strategic Plan for Northern Lapland 2040, being drafted by the Regional Council of Lapland, links to this exercise

The present study took into account the work on Northern Lappish regional land use planning which discusses the routing to Kirkenes. The work on the 2040 regional strategic plan for Northern Lapland was initiated in 2017 and it includes a study on transport systems and rail connections of the Sodankylä – Kirkenes alternative rail route so that it could be preliminarily indicated in the plan. The studies are in line with one another and enable comprehensive planning for transport and logistics of the Arctic region. However, it must be emphasized that regional land-use planning in Finland is a completely separate process, which is based on the regional self-government and regulated in section 26 of the Land Use and Building Act, originally from 1999, last amended 2018. Drawing up a regional plan and other regional planning is the charge of the joint municipal board (regional council), of which the area's local authorities must be members. Therefore this steering group cannot take a stand on the studies being performed at the regional level.

### What is Regional land use planning

The regional land use plan is drafted by the Regional Council and it proposes general principles of land use – the main objective is to establish the principles of housing and spatial structures, and to define areas that are significance for the development of the region. National objectives are taken into account in regional planning by adapting them to regional and local land use objectives (Land Use and Building Act Section 25).

In practice the regional land use plans are often written and reviewed progressively. The most important legal effects of the regional plan are seen in the hierarchy of the plans, i.e. the regional plan serves as a guideline when drawing up and amending local master plans and local town plans and wherever action is taken to otherwise plan the use of land areas (ibid. Section 32). The regional land use plan is approved by the Regional Council's highest decision-making body, namely the board of the council.

The Regional Council of Lapland started to prepare the Northern Lapland land use plan for 2040 with the three northern-most municipalities, i.e. Sodankylä, Inari and Utsjoki in 2017. The work builds on regional planning carried out for Eastern Lapland and Rovaniemi between 2014 and 2016. According to earlier studies, the planned rail connection to the Arctic Ocean would run in the area between Sodankylä and



Kirkenes which is covered by the Northern Lapland regional plan. It was decided in connection of the regional land use plan to write a more detailed plan on transport systems and a study on rail connections so that it would be easier to examine the potential alternative routes, the precise location, preliminary construction costs and the effects of the rail connection at the level of regional land use.

The preparatory documentation for the regional land use plan is to be made available for public consultation in January and February 2019. The alternative solutions will be clarified and complemented in the course of planning work and after stakeholders have been consulted. The number of the alternatives will be reduced – aiming at proposing only one or two routing alternatives on the regional land use map. Impact assessments will be complemented and clarified once the public consultation is completed.

The Northern Lapland land use planning work for 2040 defines the more precise corridor of the rail tracks, the construction costs of the railway and the essential effects on a regional plan level. The objective of further work is to examine the routing of Sodankylä – Kirkenes with potential alternatives so that it could be proposed indicatively in the regional plan. In addition there will be a study on the need to connect Sodankylä westwards with Kittilä. There will be an impact assessment of the proposed routing alternatives which will take into account the proximity of Natura 2000 sites. Where necessary, clarifications with impact assessment will be made to the selected alternative before it is entered in the regional plan.

## Technical starting points for the railway

The plan of the routing between Rovaniemi and Kirkenes consists of two parts. The routing Rovaniemi-Sodankylä is based on the 2014 regional plan of Rovaniemi and Eastern Lapland and the rail connection study therein. The regional plan presents two alternative routes between Rovaniemi and Sodankylä: a new track directly from Rovaniemi to Sodankylä closely following the alignment of highway no 4 or using the current track to Kemijärvi and from there continue on a new track to Sodankylä.

Even though the rail link from either Rovaniemi or Kemijärvi via Sodankylä to Kirkenes is designed for mixed traffic it would principally serve cargo transport. The target speed for traditional rolling stock on the track is 200 km/h. The track is electrified, it has a block signaling system, it is wayside controlled and equipped with an automatic train protection system. The axle weight at the speed of 100 km/h on the track is 300 kN. The minimum authorized bend radius is 2,500 m but where possible a minimum of 7,000 m is used. There are sidings for meeting trains every 30 kilometres on this

single-track section. It is to use the standard Finnish track gauge of 1,524 mm. The track has no level crossings with roads.

New stations would be located in Sodankylä, Saariselkä and Ivalo. Other possibilities for stations are Inari and Näätämö along the western route alternative, or Nellim along the eastern alternative routing. The geometry of the track alignment is designed with a precision to enable the evaluation of the length of track sections on soft soil, the length of necessary tunnels and number of bridges.

The route alignment is designed to primarily avoid sites of high natural value, the Natura 2000 sites, human settlements and waterways. In addition there is an objective to minimize the number of bridges and tunnels.

## **Special characteristics of the operating environment**

The geographical area of the study on the planned rail track falls almost exclusively in the Sami traditional native regions. The native region of the Sami people (Act on the Sami Parliament 17.7.1995/97) consists of the municipalities of Enontekiö, Inari and Utsjoki as well as the Lapland reindeer herding area in the municipality of Sodankylä. There are detailed provisions about the status and rights of the Sami people in the regional land use plans. The Skolt Sami area is located in the eastern parts of the municipality of Inari. The most significant villages are Sevettijärvi and Nellim. The track alignment would cross these Skolt Sami areas and come close to the aforementioned villages.

The whole Northern Lapland Regional Plan area is located in the reindeer husbandry areas and except for the southern parts of Sodankylä, it is an area especially reserved for reindeer husbandry. There are 16 reindeer herding cooperatives in the planned railway area. The rail connection study and the route alignment alternatives fall in the areas of 10 reindeer herding cooperatives.

Central national and regional environmental data was taken into account in designing the routing alternatives. The design of the track corridor is required to meet particular conditions. The alignment is to avoid crossing Natura 200 or nature reserve sites or come too close to them. In addition the track corridor is designed to pass residential areas at a sufficient distance to avoid detrimental noise and vibration. Environmental Impact Assessment was made in relation to the stage of planning so it is still very general and concise and involves many uncertainties.

### 3: Strategies perspectives and planning processes in Finnmark

The National Working Group on Transport in the Barents Region (BEATA) prepared under the Norwegian leadership a Joint Barents Transport Plan in 2013. This plan was updated under the Finnish leadership in 2015. The plan outlines common future transport ambitions in the Barents region. Both Finland and Norway have in this plan stated their ambitions for a railway between Rovaniemi and Kirkenes in a long-term perspective. Studies of such a railway are also included in the Norwegian National Transport Plan for 2018 – 2029:

*"The Government will prioritize improvements to the existing rail network during the planning period, but if the Finnish government authorities initiate a study regarding a rail link between Finland and Kirkenes, the Norwegian government is positive to contribute to this work »*

Finnmark County Council has also in the Regional Transport Plan 2018 - 2029 outlined ambitions for such a railway. In addition, the counties of Finnmark and Lapland have included in their cooperation agreement for 2017-2020 that they will cooperate on a future railway between Kirkenes and Rovaniemi.

National level through The Norwegian Road Administration is leading the work with regard to a possibility study and a regulation plan for the new harbour (multipurpose port) in Kirkenes. This is to be completed for local / regional political decision in autumn 2019.

Regional authorities also point out the need for further involvement and participation by the Sámi Parliament and other relevant representatives of Sámi interests. This is to ensure their involvement both when it comes to economic and practical issues, and to make it possible for Sámi interests to be heard and taken into account throughout the process.