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THE PLANNING PROCESS AND PERMITS OF THE ARCTIC RAILWAY

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Finnish Transport Infrastructure Agency
P. O. Box 33
FI-00521 HELSINKI, Finland
Tel.: +358 (0)29 534 3000

Foreword

The objective of this study was to investigate the preconditions of the construction of the Arctic Railway between Rovaniemi, Finland and Kirkenes, Norway. The report was commissioned by the Department of Transport and Land Use of the Finnish Transport Agency (*Finnish Transport Infrastructure Agency from 1 January 2019*) and the Norwegian Railway Directorate. The project manager of the assignment in the Finnish Transport Agency was Anni Rimpiläinen.

The report was drafted as a consultation by the company Sitowise, where the project manager was Annika Salokangas. Other specialists involved in the project were Tuomas Kiuru, Harri Mäkelä and Veli-Markku Uski from Sitowise. Specialists from Norway involved in drafting the report were Sturla Alvheim and Jarle Vaage from the Norwegian Railway Directorate.

The report was conducted in cooperation with other Norwegian railway authorities and agents. The Finnish and Norwegian planning and permission processes were compared in a steering group with members from the Finnish Transport Agency and the Norwegian Railway Directorate.

The subgroup of the project consisted of the following members:

Timo Jokelainen	Centre for Economic Development, Transport and the Environment
Riitta Lönnström	Regional Council of Lapland
Marjukka Vihavainen-Pitkänen	Finnish Ministry of Transport and Communications
Juha Tapio	Centre for Economic Development, Transport and the Environment
Sunna Marie Pentha	Norwegian Ministry of Agriculture and Food
Silje-Karine Reisz	Norwegian Environment Agency
Vegar Trasti	Sør-Varanger municipality

Helsinki, January 2019

Finnish Transport Infrastructure Agency

Contents

1 Introduction, background and design parameters

Preliminary studies of the feasibility of the Arctic Railway have been conducted. The technical assessment prepared by Sitowise Oy was completed in 2018. The track alternatives included in the assessment were

- Tornio–Boden–Kiruna–Narvik
- Kolari–Kiruna–Narvik
- Kolari–Kilpisjärvi–Skibotn–Tromsø
- Rovaniemi–Sodankylä–Ivalo–Kirkenes
- Kemijärvi–Kelloselkä–Kandalaksha–Murmansk.

The focus of this report is on the Kirkenes alternative, which is also being prepared for the 2040 Regional Land-Use Plan of Northern Lapland. Figure 1 illustrates an approximate overview of the possible alignments for the alternative as well as their relation with the reindeer husbandry area, the Sámi Homeland and the Skolt Area.

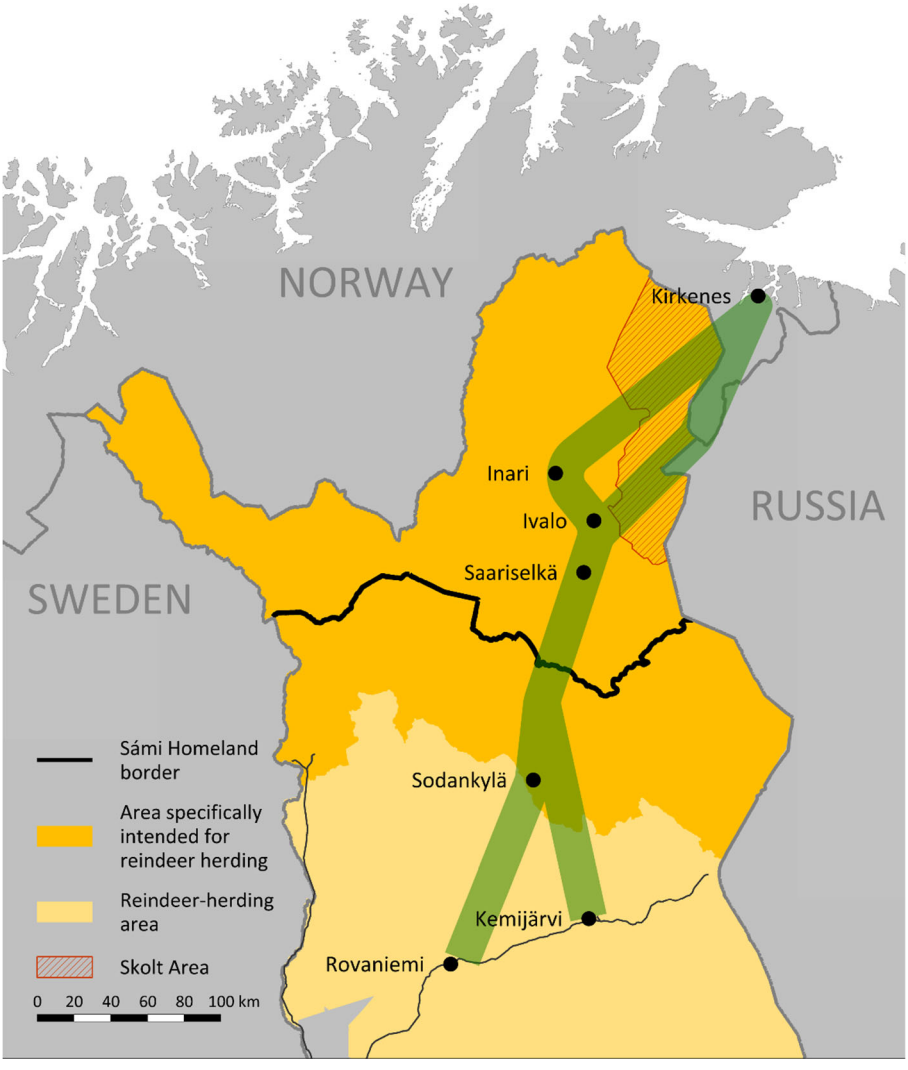

Figure 1. Approximate corridors for the Arctic Railway. The black circles indicate both current and potential stations.

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. The railway-planning process is demonstrated in chapters 2 and 3. The railway-planning process is based on the laws of Finland (chapter 4) and Norway (chapter 5). In Finland, the construction of a new railway also requires a variety of permits, which have been listed in chapter 6.

Chapter 7 describes suitable working phases for the construction of the Arctic Railway, followed by the proposed further actions in chapter 8. The report is concluded in chapter 9.

The preparation of design parameters must be set in motion at as early a stage of the process as possible. The design-parameter preparation shall be in accordance with volume 1 of the railway track's technical instructions (*Ratatekniset ohjeet*; RATO). The design parameters are prepared to act as the source information for the planning, and they shall be updated as the source data becomes more accurate. The design parameters must be approved by the Design-Parameter Group of the Finnish Transport Agency. In a venture as large as the Arctic Railway, the design parameters should be determined at the stage of the preliminary general plan.

2 Railway-planning process in Finland

2.1 General

The stages of railway planning in Finland and their relation to land-use planning is illustrated in Figure 2.

Figure 2. The stages of railway planning in Finland. Each stage is related to a corresponding level of land-use planning.

If, however, the proposed railway is particularly long-stretching, 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 for the few built-up areas and tourist attraction centres only. Therefore, the drawing up of the general plan for the Arctic Railway may already be initiated before the 2040 Regional Land-Use Plan of Northern Lapland 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. Figure 3 describes the timeline of the entire planning process.

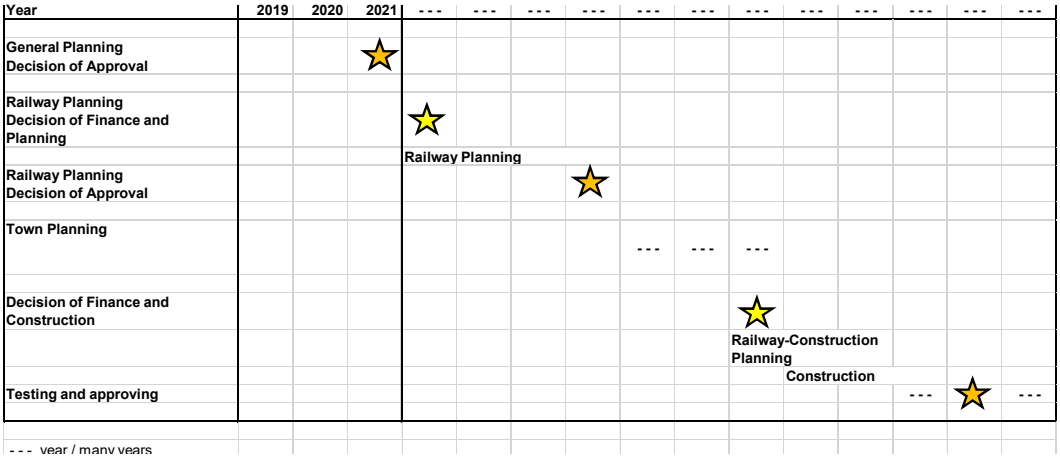

Figure 3. The timeline of the railway-planning process in Finland.

2.2 Feasibility-study stage

2.2.1 Strategic planning and project planning

The first stage of a railway venture is the feasibility study. The impulse for venture and strategic planning is usually derived from demand. The strategic planning is based on the planning of the transportation system. Preliminary studies of the feasibility of the Arctic Railway have been conducted. The latest study was completed in the spring of 2018. The studies found that the construction of a railway in Lapland is technically possible. The studies also included a project estimate for the railway alignment.

2.2.2 Demand report

A demand report is typically linked to the railway-planning process. Such a report investigates the necessity of the railway. For example, the demand report can be extensive and based on the need to increase the maximum speed of an existing railway, or memorandum-based calculating the costs of a small project as well as investigating its transportation utility and construction feasibility.

The studies of the Arctic Railway, conducted in the spring of 2018, fall into the category of a demand report. A demand report of a project should include the impacts of its measures, the socioeconomic cost-effectiveness of the project, and the magnitude of the costs of the project. The technical assessment included an estimate of the magnitude of the costs while the profitability study took a stand on the cost-effectiveness of the five alignments.

2.2.3 Preliminary general plan and environmental impact assessment procedure

The preliminary general plan is a part of the general-planning process of a railway. In significant ventures, the Act on Environmental Impact Assessment Procedure is to be applied. The general plan does not have to be prepared if the impacts of the venture are minor and the location and impacts of the railway area are already available in the local detailed and master plans.

2.3 General plan

A general plan shows the necessity, the investigated alternatives as well as the fundamental transportation solutions of the railway venture. The location of the railway is indicated to such a precision that land owners can estimate the impacts caused upon them. The general plan is in effect for eight years starting from the date of its approval. The Finnish Transport Agency may extend the validity of the general plan by up to four years.

2.4 Railway plan

A railway plan is a plan in accordance with the Railway Act indicating the railway area to such a precision that adverse effects to the environment as well as other impacts on transportation and the region are revealed to land owners and other interested parties. The railway plan denotes the horizontal and vertical alignment of the railway as well as the possible needs to redeem land. The railway plan shows how the adverse effects imposed upon the area are minimized during the construction stage.

The general plan expires when the railway plan becomes non-appealable and its decision of approval has been made. The railway plan is in effect for four years. The Ministry of Transport and Communications may extend the validity of the railway plan by up to four years. However, the railway plan must be approved within four years of its drafting.

2.5 Construction plan

The schemes of a construction plan are compiled to such a precision that they are both executable and cater for maintenance. The construction plans are accurate and determine the construction method as well as the work-phasing of the railway. The plans also include quantity surveying and cost data.

2.6 Construction

The construction is not possible until a legally binding statutory land-use plan has been approved. The railway plan cannot be approved without a legally binding statutory land-use plan.

3 Railway-planning process in Norway

3.1 Overview

Railway planning in Norway is a time-consuming undertaking. A recent report from the Office of the Auditor General into planning times for large road and rail projects surpassing 750 million kroner 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.

3.2 Planning subject to the Planning and Building Act and compulsory quality assurance

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. The planning authority, according to the Planning and Building Act, 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 quality assurance scheme for public investment projects with estimated budgets of more than 750 million kroner. The quality assurance scheme consists of two separate assessments, the first being the assurance of the choice of concept (*konseptvalgutredning*; KVU) at the end of the preliminary-study phase. The purpose of quality assurance (*kvalitetssikring*; KS1) 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*; KDP) and the zoning plan (*reguleringsplan*; RP) detailing land-use regulations for the project. Prior to both plans, separate planning programmes – that is, "plan of the planning process" – are prepared and subjected to consultations before being determined by the municipal council. The durations of the phases are estimated in figure 4.

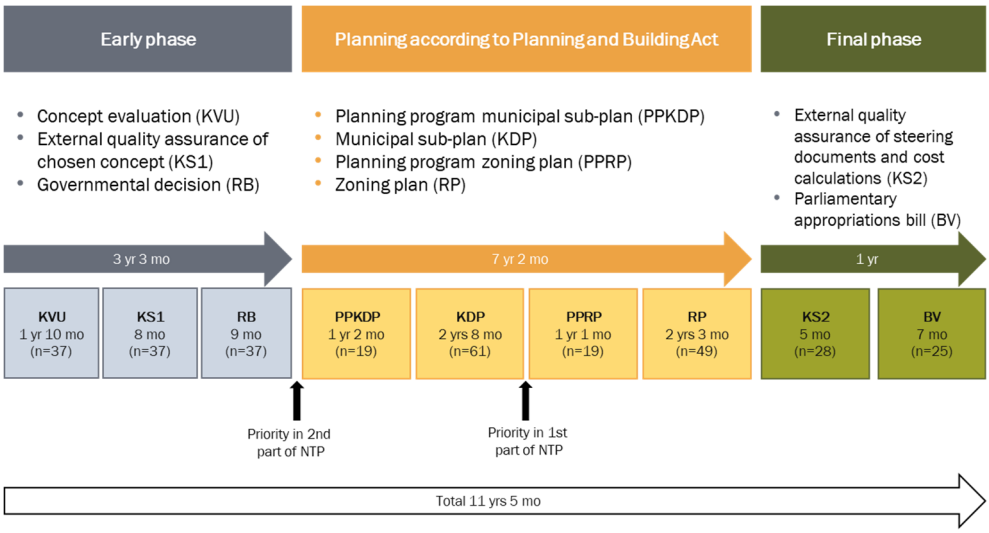

Figure 4. The overall timeline and phases for planning a large infrastructure project in Norway.

3.3 Planning and the National Transport Plan

At the end of the planning phase, the project is submitted to the Parliament for approval and funding (*bevilgningsvedtak*; BV). Prior to this, the project is subject to the second quality assessment, it being a review of the documentation behind the proposition presented to the Parliament, with emphasis on cost estimates, steering documents and contract strategies. This second quality assurance (*kvalitetssikring*; KS2) provides guidance for contingency reserves and on how the project should be managed to maximise success during implementation.

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.

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 Association, 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. The overall timetable of the National Transport Plan is presented in Figure 5.

Figure 5. The overall timeline of the National Transport Plan.

For a project, the first step towards realisation is to be prioritised for the second period of the National Transport Plan; and, as the project planning continues, the next step is to be promoted to the first period. If a project is to receive priority for the second period of the National Transport Plan, the project must have completed the KVU and KS1 phases. Thus, achieving priority is a key factor in ensuring further progress, and bringing a project in step with the National Transport Plan chronology is of importance. For the Arctic Railway, the earliest time at which the project may seek priority will be the next revision, due in 2026.

To address the perceived inefficiencies in the planning processes, the central government has, since 2011, worked to reduce planning times for large road and rail projects. Several remedies have been suggested to speed up the processes. The most relevant measure for the Arctic Railway is probably the use of a centrally prepared zoning plan, thereby bypassing the requirement for a municipal sub-plan. This remedy may reduce the planning time by up to two years, but there is limited experience with how this remedy will work in high-profile, possibly controversial projects.

Figure 6 illustrates the causes of long planning times and measures to reduce them.

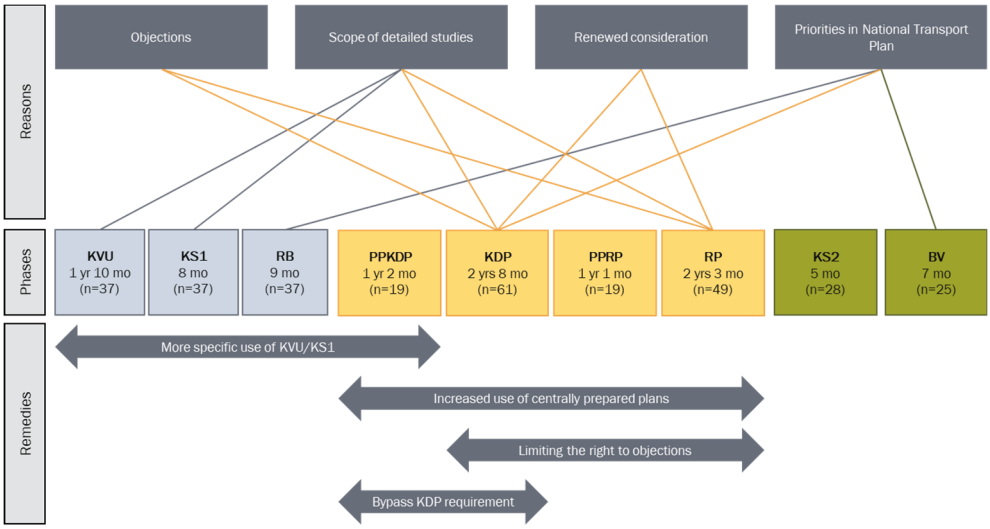

Figure 6. An overview of the causes of long planning times and the measures to reduce them as well as their occurrence in the planning process.

Norwegian planning processes are based on the extensive use of consultations, hearings and other forms of stakeholder involvement. The Sámi must be notified of the process, so that they receive every possible opportunity to have a say in the planning. The hearing of the Sámi has the potential to significantly delay the process.

4 Law of Finland

4.1 Land Use and Building Act

The objective of the Land Use and Building Act is to ensure that the use of land and water areas and building activities on them create preconditions for a favourable living environment and promote ecologically, economically, socially and culturally sustainable development.

The act also aims to ensure that everyone has the right to participate in the preparation process, and that planning is of high quality and interactive, that expertise is comprehensive and that there is an open provision of information on matters being processed.

Land use in municipalities is organised and steered by local master plans and local detailed plans. The local master plan indicates the general principles of land use in the municipality. The local detailed plan indicates how land areas within a municipality are used and built.

The objective in land-use planning is to promote

- a safe, healthy, pleasant, socially functional living and working environment, which provides for the needs of various population groups
- economical community structure and land use
- protection of the beauty of the built environment and of cultural values
- biological diversity and other natural values
- environmental protection and prevention of environmental hazards
- provident use of natural resources
- functionality of communities and good building
- economical community building
- favourable business conditions
- availability of services
- an appropriate traffic system and, especially, public transport and non-motorised traffic

through interactive planning and sufficient assessment of impact.

4.2 Railway Act

According to the Railway Act, a general plan and a railway plan must be drafted for significant ventures.

4.3 Act on Environmental Impact Assessment Procedure

The Act on Environmental Impact Assessment Procedure shall be applied to such ventures and alterations to them for which an assessment is required to enforce an international agreement binding on Finland or which may have significant adverse environmental impact due to the special features of Finland's nature and environment.

4.4 Act on the Sámi Parliament

The Sámi people have linguistic and cultural autonomy in the Sámi Homeland as provided in the Act on the Sámi Parliament and in other legislation. The quarter responsible for the tasks relating to cultural autonomy is the Sámi Parliament. The Sámi people elect the members of the Sámi Parliament from among themselves.

In matters pertaining to its tasks, the Sámi Parliament may make initiatives and proposals to the authorities, as well as issue statements.

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, the authorities shall negotiate with the Sámi Parliament when the measures concern

- community planning
- the management, use, leasing and assignment of state lands, conservation areas and wilderness areas
- applications for licenses to stake mineral-mine claims or file mining patents
- legislative or administrative changes to the occupations belonging to the Sámi form of culture
- the development of the teaching of and in the Sámi language in schools, as well as the social and health services
- any other matters affecting the Sámi language and culture or the status of the Sámi as an indigenous people in the Sámi Homeland.

4.5 Skolt Act

Either of the alternatives of the Arctic Railway to Kirkenes would cross the Skolt Area in the eastern parts of the municipality of Inari. The purpose of the Skolt Act is to maintain and promote Skolt culture in the Skolt Area.

The state and municipal authorities shall give the Skolt Village Assembly and the Skolt Council the opportunity to provide a statement regarding

- far-reaching matters or matters of principle concerning the sources of livelihood and the living conditions of the Skolts
- land-acquisition petitions
- delivery permits of Skolt real estate
- the use of usage areas
- other equivalent matters directly affecting the circumstances of the Skolts.

4.6 Wilderness Act

According to section 4 of the Wilderness Act, permanent roads must not be constructed in wilderness areas. The law does not state anything about constructing railways, but a logical conclusion would be that the law also prohibits the construction of permanent railways in wilderness areas.

The Eastern Alternative of the Arctic Railway passing through Nellim would be very close to the Vätsäri Wilderness Area. It is unclear whether its construction would require an amendment of the Wilderness Act.

4.7 Reindeer Husbandry Act

The Arctic Railway to Kirkenes would be entirely located in the reindeer-herding area. Only the sections south of the river Kitinen within either the municipalities Rovaniemi and Sodankylä or Kemijärvi and Pelkosenniemi are excluded from the area specifically intended for reindeer herding.

The land in the area specifically intended for reindeer herding may not be used in a manner that may significantly hinder reindeer herding. Transfer of ownership or leasing of land in this area may only be on the condition that the landowner or lessee does not have a right to receive compensation for damage caused by reindeer.

5 Law of Norway

5.1 Overview

Norway has three levels of government: the national level, the county level and the municipal level. The national government primarily creates the framework laws and policy documents that structure spatial planning. The spatial planning and sectoral planning are done in parallel.

5.2 Planning and building legislation

The Planning and Building Act is a tool for safeguarding the public interest and managing land use. Planning pursuant to the act shall ensure sustainable development for the whole country and that it is open to all to take part in decisions that concern their surroundings. The national planning authority is the Ministry of Local Affairs and Modernisation.

The national authorities commonly submit their plans to local and regional governments to be incorporated in local and regional plans. County governments serve as planning authorities and supervise planning of local governments. The main planning authorities of Norway are its municipalities.

The county-level *Regional Planning Strategies* are typically prepared at the beginning of each legislative period. The non-statutory *Regional Plans* are prepared as required by the *Regional Planning Strategies*.

The *Municipal Planning Strategies* allow municipalities to specify independently which land-use plans must be made or updated. The main spatial-planning documents of municipalities are the *Municipal Master Plans*.

In accordance with section 6-4 of the Planning and Building Act, the planning process may be conducted as a centrally prepared, state-sponsored plan, thereby allowing for shorter or more efficient planning processes and for settling conflicting priorities between local, regional or national government agencies.

5.3 Environmental-impact assessment legislation

The regulations on impact assessments (in some jurisdictions referred to as sustainability appraisals) regulate when and how assessments of the impact of a planned development on the environment and society are to be carried out. In Appendix 1 to the regulations, a number of projects that require mandatory environmental impact assessment are listed, and railway lines for long-distance traffic are among the projects listed. Such projects also require public notification and planning program.

The developer – that is, the entity responsible for the project – is responsible for public notification of the start of planning and for drawing up a planning programme. According to the second paragraph of Section 4-1 of the Planning and Building Act, the planning programme “shall give an account of the purpose

of the planning work, the planning process with time limits and participants, arrangements for public participation, particularly in relation to groups presumed to be particularly affected, the alternatives that will be considered and the need for assessments". When giving public notice, outlining the need for assessments, relevant stakeholders may give input on the scope of planned assessments in order to ensure that all aspects of a project's impact are covered.

Chapter 5 in the regulation provides detailed requirements for the contents of environmental impact assessments, whereas Chapter 6 regulates the appraisal of the assessments. Chapter 8 in the regulation is also relevant for the Arctic Railway project, as it states that the Norwegian Environment Agency (*Miljødirektoratet*) serves as a national contact point for planning processes with cross-border impacts and implications. Similarly, the Norwegian Environment Agency is to be notified of foreign plans and projects that may impact the environment and society in Norway.

5.4 Indigenous peoples

5.4.1 Procedures for consultations between state authorities and the Sámi Parliament

The consultation agreement between state authorities and the Sámi Parliament of Norway asserts a right for the Sámi people in Norway to be consulted in matters that may affect them directly. In order to ensure that work on matters that may directly affect the Sámi is carried out in a satisfactory manner, the Government and the Sámi Parliament have agreed that consultations between state authorities and the Sámi Parliament shall be conducted in accordance to the procedural guidelines in the consultation agreement.

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 Sámi interests. The agreement shall also contribute to facilitating the development of a partnership perspective between state authorities and the Sámi Parliament that contributes to the strengthening of Sámi culture and society. Finally, the agreement shall facilitate the development of a common understanding of the situation and developmental needs of the Sámi society.

The consultation procedures in their present form apply to the Government and its ministries, directorates and other subordinate state agencies or activities.

5.4.2 Sámi Act

The purpose of the Sámi Act is to enable the Sámi people in Norway to safeguard and develop their language, culture and way of life. The act contains provisions on the Sámi Parliament and the financial liability of the state, among other things.

In Proposition 116 L (2017–2018), the Norwegian Government has proposed to make consultations a part of Norwegian legislation through the adding of a chapter on the duty to consult into the Sámi Act. According to the proposed amendment, public authorities, including the regional and municipal levels, will

be obligated by law to consult with the Sámi people in matters that may affect them.

Whether or not the proposed amendment of the Sámi Act is adopted, it is recommended to start a dialogue with the Sámi Parliament at an early stage, to ensure that Sámi viewpoints are heard from the outset.

5.4.3 The Finnmark Act

The Finnmark Act transferred about 96 per cent of the area in the Finnmark county to the inhabitants of Finnmark. This area is managed by the Finnmark Estate Agency. A board of directors, with six members, manages the Finnmark Estate. Three members are appointed by the Sámi Parliament of Norway, and three by the Finnmark County Council.

The background for the Finnmark Act is the Sámi people's struggle for recognition of their rights to manage their land and culture. In 1978, there was a big controversy surrounding the plan to construct a dam and hydroelectric power plant that would inundate the Sámi village of Máze, resulting in the so-called Alta controversy. As a result of the controversy, the Norwegian Government held meetings with Sámi representatives. The meetings resulted in the establishment of the Sámi Rights Committee addressing Sámi legal relations, proposing the establishment of the Sámi Parliament and the adoption of the Finnmark Act in 2005.

The Finnmark Act attempts to strengthen Sámi rights by giving the entire population of Finnmark greater influence of land in the county. The act does not apply to fishing rights in salt water, mining rights or oil rights.

An important element of the act is the discussion and recognition of existing rights of use and ownership of land. For this purpose, a commission and tribunal have been set up, working their way through zones across Finnmark.

5.4.4 The Planning and Building Act

The Planning and Building Act contains several provisions specifically pertaining to the interests of the Sámi population.

According to Section 3-1, the plans pursuant to the act shall protect the natural basis for Sámi culture, economic activity and social life.

The Sámi Parliament has a right of opposition according to the third paragraph of Section 5-4, against municipal land-use plans and zoning plans which overrule or do not safeguard interests of important significance to Sámi culture or subsistence activities or business. The Sámi Parliament may make objections to such plans in respect of issues that are of significant importance to Sámi culture or the conduct of commercial activities.

Furthermore, according to section 8-4, the Sámi Parliament may demand a regional plan to be presented to the ministry if important Sámi interests are not sufficiently safeguarded.

The Sámi Parliament has its own guidelines for planning procedures (*Sametingets planveileder*), which should be taken into account in all planning procedures.

5.4.5 International Covenant on Civil and Political Rights

The International Covenant on Civil and Political Rights (ICCPR) was signed by Norway in 1968 and ratified in 1972. Article 27 of the covenant pertains to minorities and states as follows:

> *In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language.*

5.4.6 Indigenous and Tribal Peoples Convention

The Indigenous and Tribal Peoples Convention (ILO Convention 169) is the major binding international convention concerning indigenous peoples. The main principle in the convention is the right of indigenous peoples to further develop their culture, and the obligation of authorities to initiate measures to support this work. The convention also contains provisions on land rights. Norway ratified the convention in 1990.

5.4.7 Declaration on the Rights of Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) is an international instrument adopted by the United Nations on September 13, 2007, enshrining the rights that "constitute the minimum standards for the survival, dignity and well-being of the indigenous peoples of the world". The Declaration on the Rights of Indigenous Peoples protects collective rights that may not be addressed in other human rights charters that emphasise individual rights, and it also safeguards the individual rights of indigenous people. Norway voted in favour of adopting the declaration in 2007.

5.4.8 Alta Outcome Document

The Alta Outcome Document is a document containing indigenous peoples' recommendations for a high-level plenary meeting of the General Assembly, also known as the World Conference on Indigenous Peoples in 2014. Its key topics are indigenous peoples' lands, territories and resources, the principles of free, prior and informed consent, and the relationship between governments, indigenous peoples and extractive industries regarding participation, access to decision making and distribution of income.

5.5 Nature Diversity Act

The purpose of the Nature Diversity Act is to preserve nature with its biological, landscape and geological diversity and ecological processes through sustainable use and protection, so that it provides the basis for human activity, culture, health and well-being, now and in the future, also as a basis for Sámi culture.

5.6 Water Framework Directive

The Water Framework Directive is an EU directive which commits member states to protect and improve the ecological and chemical status of our water bodies (rivers, lakes, groundwater and coastal waters). For natural water bodies, the goal is to obtain both good ecological and chemical status. The state of the individual water bodies must be evaluated after specific criteria and quality elements which are the

- biological quality (e.g., fish, benthic invertebrates and aquatic flora)
- hydromorphological quality (e.g., river substrate and river continuity)
- physicochemical quality (e.g., temperature, nutrient conditions and oxygenation)
- chemical quality (pollutants).

It is important to notice that the Water Framework Directive in Norway works on the one-out, all-out policy, meaning that if an individual quality element does not achieve good status for a particular water course, the entire water body could be classified as failing. Such policies could make it more challenging for the Arctic Railway project to fulfil all the requirements and environmental objectives given in the Water Framework Directive.

6 Permit procedures in Finland

6.1 Permits in accordance with the Nature Conservation Act

- applying for the lifting of a nature protection order
- applying for the weakening of a protection order
- applying for an exemption order
- lifting the protection order of a conservation area, either by appealing or repealing an act or a decree, or through the resolution by the state's unit of real estate administering the conservation area
- lifting a nature protection order of a natural monument on private land by the resolution of the municipality

6.2 Permission to extract soil materials

- applying for permission from the authority dictated by the municipality if the materials are not extracted during construction, or if permission is not based on an approved railway plan

6.3 Landscape-work permit

- applying for a permit from the building supervision authority if the preconditions are not transpired in the railway plan, or if the dumping of soil or rock materials is not based on the railway plan

6.4 Trespassing permit and notice in accordance with the Antiquities Act

- applying for a permit from the centre for economic development, transport and the environment
- notifying the National Board of Antiquities and Historical Monuments if, during the planning, it turns out the execution of the venture may involve a fixed relic

6.5 Permission to demolish a building

- applying for permission from the municipal building supervision authority if the preconditions for the permit are not transpired in the railway plan

6.6 Construction permit

- applying for a permit for a new building, an expansion of a building or a substantial change in the purpose of use of a building from the municipal building supervision authority

6.7 Permission to plan public roads

- entering into a contract with the centre for economic development, transport and the environment
- approval of the plans of public roads in accordance with the Highways Act

6.8 Level-crossing permit

- as a rule, indicating the level crossings used during construction and the level crossings of service roads in the railway plan
- granting a permit for a level crossing used during railway work irrespective of the line category or traffic volume of the railway if the level crossing does not compromise operational safety, and it is only temporarily needed for railway maintenance
- ensuring the safety of a temporary level crossing through railway-traffic conditions or safety equipment

6.9 Planning permission for minor construction

- applying for permission from the municipal building supervision authority if the preconditions for the permit are not transpired in the railway plan, or if the measure is not based on the railway plan

6.10 Examination permit

- applying for an examination permit in accordance with Section 84 of the Act on the Redemption of Immoveable Property and Special Rights if the area needs to be examined in the preliminary report stage
- as an alternative to the examination permit granted by the regional state administrative agency, entering into a contract with the land owner or the possessor of real estate regarding the execution of the examinations

6.11 Examination right

- notifying the municipality and real-estate owner or other interested parties as well as the parties whose housing, work or other conditions might be affected by the plan, announcing the drafting of a plan and the beginning of the examinations related to the plan

6.12 Environmental license and notices in accordance with the Environmental Protection Act

- environmental license for the handling of contaminated soil materials
- beginning the environmental remediation of soil in the contaminated area or the removal of contaminated soil materials to be dispatched elsewhere in accordance with Subsection 1 by notifying the centre for economic development, transport and the environment if the extent of the contaminated area and the degree of contamination have been sufficiently examined, the remediation is executed using a generally accepted method, and the activity does not cause further contamination of the environment
- notifying the municipal environmental protection authority about the noise and vibration during construction
- applying for an environmental license for the utilisation of soil and rock material waste or other applicable waste within the railway area if the soil or rock material is contaminated, or if no plan in accordance with Subsection 2 of Section 4 of the Government Decree of Environmental Protection has been prepared regarding its utilisation

6.13 Permit in accordance with the Water Act (permit from a regional state administrative agency)

- applying for a permit from a regional state administrative agency for actions in violation of the closure or change prohibitions or groundwater change prohibitions and the substantial change of aquatic landscape
- applying for an exception to the prohibition of endangering of the aquatic habitats
- applying for permission to begin working to precipitate the beginning of working

6.14 Centres for economic development, transport and the environment

- communication with the municipality or the centre for economic development, transport and the environment to assess the insignificance of the impacts of the railway venture
- acquisition of the permits in accordance with the special legislation before the launch of operations

- requesting a statement from the centre for economic development, transport and the environment before the approval of the railway plan when extracting of soil materials and the area is of national or otherwise notable significance regarding environmental protection, the area is significant regarding water protection, or the extraction of materials directly impacts the area of another municipality

6.15 Public-use permit of maps, aerial photos and other pictures

- applying for a permit or the assent of the rightsholder

6.16 Permission to move and operate within railway area

- performance and validity of qualifications specified by the Finnish Transport Agency
- order by the party responsible for the maintenance of a railway requiring the movement and operation within railway area

7 Working phases of the construction of the Arctic Railway

The first working phase of the Arctic Railway should be the extension of the current railway network from either Rovaniemi or Kemijärvi towards Sodankylä. The locations of these railway alternatives are indicated in the Regional Land-Use Plan of Rovaniemi and Eastern Lapland.

In the second working phase, the Arctic Railway will be extended from Sodankylä to Saariselkä and Ivalo. The location of the railway will be indicated in the Regional Land-Use Plan of Northern Lapland.

The third working phase will include the construction of the Arctic Railway from Ivalo to either Nellim – the eastern alternative – or Näätämö via Inari – the western alternative. The locations of both alternatives are indicated in the Regional Land-Use Plan of Northern Lapland.

The fourth working phase is the construction of the final leg between the Finnish–Norwegian border and Kirkenes.

8 Border formalities

According to the Border Cooperation Agreement between Finland and Norway, the national border authorities of each country may provide services and exercise legal powers of behalf of either state.

Border cooperation is based on the principle that checks and formalities should be carried out at a single spot. The infrastructure and allocation of customs offices at certain places along the border reflect that it is unnecessary to establish customs offices on both sides of the border.

The Border Cooperation Agreement provides that border inspections and formalities shall be carried out with the minimum possible delay and be centralised at one place only insofar as possible.

According to the Customs Act, the customs authority of another competent authority has the right to isolate, close or empty a means of transport if necessary, with a view to maintaining public safety or undertaking a customs measure, and prohibit or restrict movements in such a means of transport. On passenger trains between Finland and Russia, all customs inspections and passport controls are carried out on the moving train, as of 2018.

9 Conclusions

The planning and construction of the Arctic Railway is a long-term process. The laws of both Finland and Norway require certain phases for the execution of the project. In Finland, the final decision to carry out the construction – that is, to finance the project – is not possible until the statutory general and railway plans have been drawn up, after which the construction planning may begin. Norway has a long-term, twelve-year plan in place, too. During the plan, the inhabitants and agents might provide considerable amounts of feedback and remarks, delaying the implementation of the planning process. It is crucial that the inhabitants, the reindeer herders and the Sámi are included in the process in an early stage of the process. Thus, it is possible to settle all the adverse impacts on reindeer herding and the environment in addition to the effects on the preparation of reasonable prevention measures.

The next phase of the planning process should be an environmental-impact assessment procedure conducted as extensively as possible. In large railway ventures, the environmental impacts should be assessed at as early a stage as possible, before the drawing up of the general plan. A preliminary general plan should be drawn up before the general plan of the Arctic Railway. When assessing the environmental impacts, an emphasis should be put on determining the living conditions of the Sámi, on minimising the adverse impacts on the reindeer industry as well as on drawing up and investigating the measures to prevent of environmental damage.

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