

NASJONAL TRANSPORTPLAN 2014-2023

UTREDNINGSFASEN



Ny infrastruktur i nord

DEL 1 UTVIKLINGSTREKK I VIKTIGE NÆRINGER OG TRANSPORTBEHOV FRAM MOT 2040





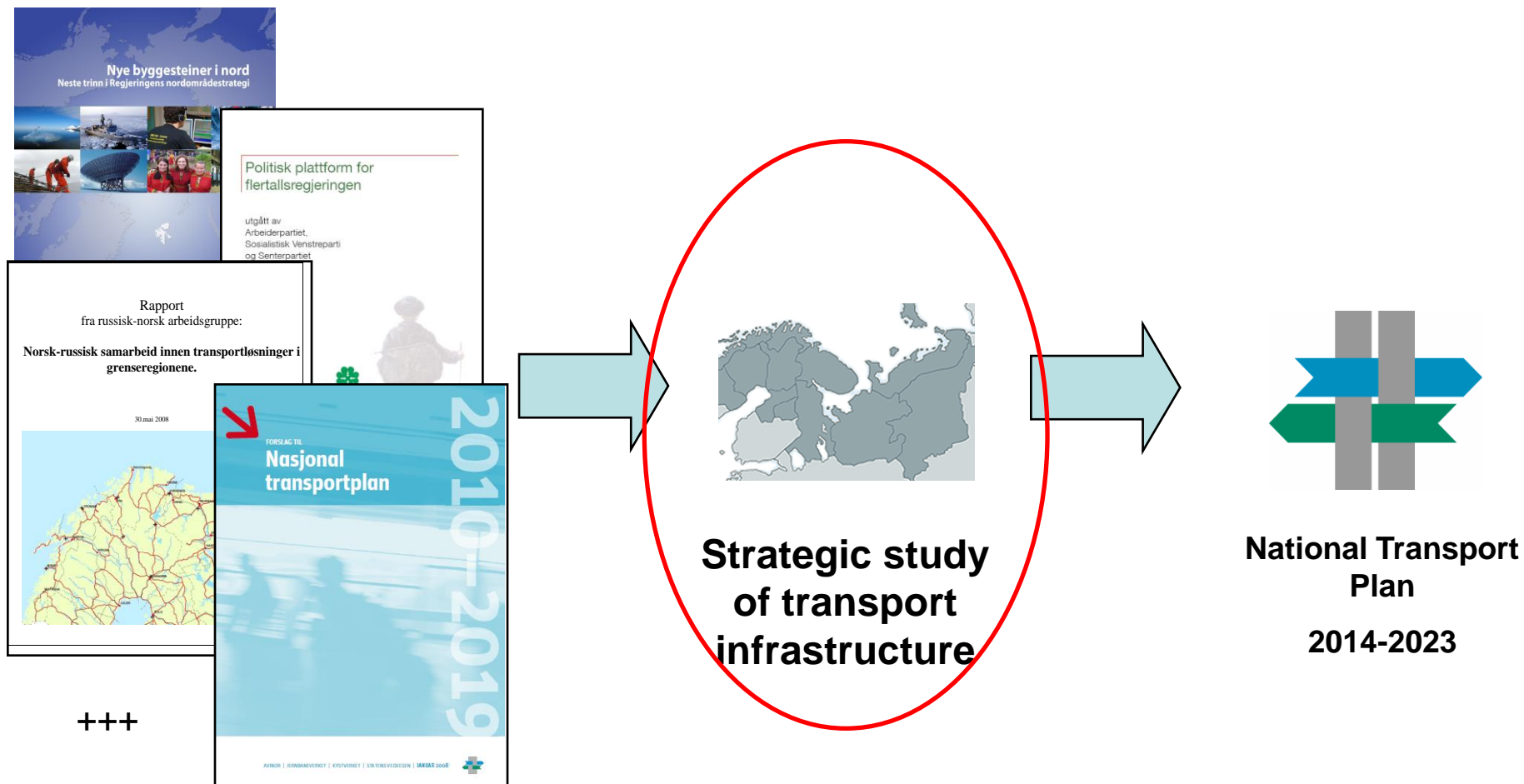
Objective

- The objective of the study is to improve the knowledge base for future decisions on infrastructure development in the northern regions.
- The study will provide expert input for work on the National Transport Plan 2014-2023, on an equal basis with other studies that will be conducted during the preparation phase.


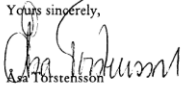








Guiding documents and process



Dialogue between countries

 REGERINGSKANSLIET	N2009/7372/IR 21 October 2009	
Ministry of Enterprise, Energy and Communications Sweden <i>Minister for Communications</i>	Minister Liv Signe Navarsete Ministry of Transport and Communications P.O. Box 8010 Dep N-0030 Oslo NORWAY	
Strategic Study on the Future need of Infrastructure in the High North		
Thank you for your letter, the initiative of a strategic study on the future need of infrastructure in the High North is most welcome.		
The Barents Euro Arctic Transport Area (BEATA) organisation can very well be an arena to assist in the High North study since cooperation and information exchange already is taking place through the BEATA organisation, as stated in your letter.		
Indeed much of the cross border planning and coordination of projects is done on a regional level, so the Swedish infrastructure administrations will be noticed of the ongoing work as well.		
For your information, contact persons in the Ministry of Enterprise, Communications and Energy are Mrs. Jeannette Jarmlinger tel: +46 8 405 17 25 e-mail: jeannette.jarmlinger@enterprise.ministry.se and Mr. Magnus Axelsson tel: +46 8 405 12 33 e-mail: magnus.axelsson@enterprise.ministry.se		
Yours sincerely,  Åsa Torstensson		
Copy: Ministry of Transport, Russian Federation Ministry of Transport, Finland		
Postal address SE-103 33 Stockholm SWEDEN	Telephone +46 8 405 10 00	E-mail: registrator@enterprise.ministry.se
Visitors' address Mäster Samuelsgatan 70	Fax +46 8 411 36 16	

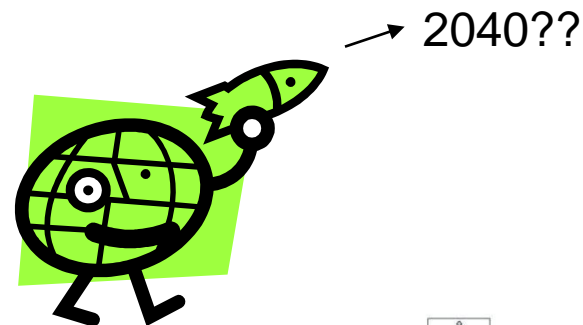
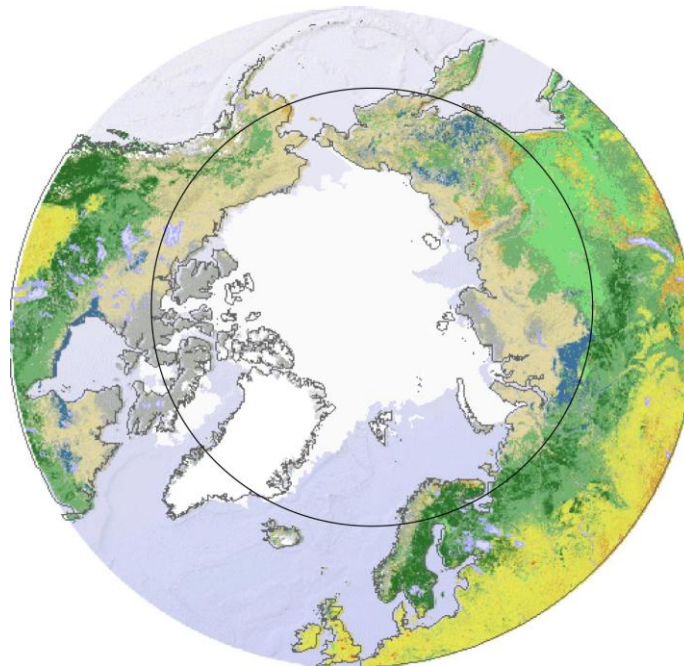
 MINISTRY OF TRANSPORT AND COMMUNICATIONS FINLAND	9 October 2009		
Minister Signe Navarsete			
Ref Letter to minister Anu Vehviläinen 15 th of September 2009			
Title Strategic Study on the Future Need of Infrastructure in the High North			
Dear Liv Signe Navarsete,			
Thank you for your letter concerning your strategic study on the Future Need of Infrastructure in the High North. This matter is also most relevant for Finland due to activities, like new mines, we have in the northern part of Finland.			
It is a good idea link the cooperation in this study to BEATA steering committee.			
We are very interested in participating your project and can offer you two contact persons, Mrs. Tuija Maanoja (tuija.maanoja@mintc.fi) and Mr. Risto Murto (risto.murto@mintc.fi).			
Yours sincerely  Minister Anu Vehviläinen			
CC: Harri Pursiainen Steering group of transport policy department			
Postal address PO Box 31 FIN-00023 Government FINLAND	Visiting address Eteläesplanadi 16-18 Helsinki	Telephone +358 9 160 02	Telefax +358 9 160 28596 +358 9 160 28590 (Information)

 DEN RUSSISKE FØDERASJONS AMBASSADE I KONGERIKET NORGE
H.E.fru Magnhild Meltveit Kleppa Norges Samferdselsminister
Oslo, 3 .mars 2010
Ærede fru Statsråd,
I forbindelse med brevet fra L.S.Navarsete til Den Russiske Føderasjons transportminister I.Levitin av 15.09.2009 er Den Russiske Føderasjons ambassade i Norge bemyndiget av Transportministeriet i Den Russiske Føderasjon å formidle følgende informasjon angående fremtidig transportutvikling i Nord-Russland.
Innen sjøtransport er man på russisk side interessert i internasjonal forskning i Nord og vil foreslå å utveksle informasjon om emnet. En viktig prioritering er utbyggingen av Den nordlige sjørute som et ledd i Det arktiske transportsystem. Man vil satse på å videreføre arbeidet med å øke sikkerheten i Barentshavet og Norskehavet samt søk og redning til havs. Det er innledet et russisk-norsk samarbeid i rammen av Barents VTMS og Barents Rescue, man vurderer muligheten å åpne nye områder i Arktis for NAVAREA-varsling.
Man satser på en aktiv videreføring av jernbaneutbygging som vil knyttes til det eksisterende jernbanenettet og underlette og aktivisere transport i nordlige områder av Russland og Barentsregionen på den russiske side av grensen til Republikken Karelia.
Kontaktpersonen på Transportministeriet som er ansvarlig for samarbeidet med utenlandske partnere på de ovennevnte områder er ekspedisjonssjef Aleksander Andreev i avdeling for internasjonalt samarbeid, tel. +7 6269570, faks +7 6994275/6261101, e-post andreevaa@mintrans.ru .
Ærbødigst,  Sergey Andreev Ambassador



Tasks

- ✓ Vital sectors:
 - Oil and gas
 - Fisheries/aquaculture
 - Tourism
 - Mining
 - Manufacturing
 - International trade/transport
- ✓ Transport needs in Northern Norway for the most important trades and industries
- ✓ An overall, effective transport network in the High North
- ✓ Are existing infrastructure plans in accordance with future needs?
 - How do local proposals for large-scale investment projects fit into this picture?





Scope of the study

- ✧ The northern part of Norway, Sweden, Finland and northwestern Russia. Within Norway, Svalbard may also be included.
- ✧ National roads, railroads, seaports/sea transport and aviation. County roads will also be included where relevant.
- ✧ Transport of persons and cargo, focusing on cargo transport.
- ✧ Cooperation in the northern regions: trans-border/international transport and transport corridors.
- ✧ The transport network seen in the light of the North-South as well as the East-West axis.





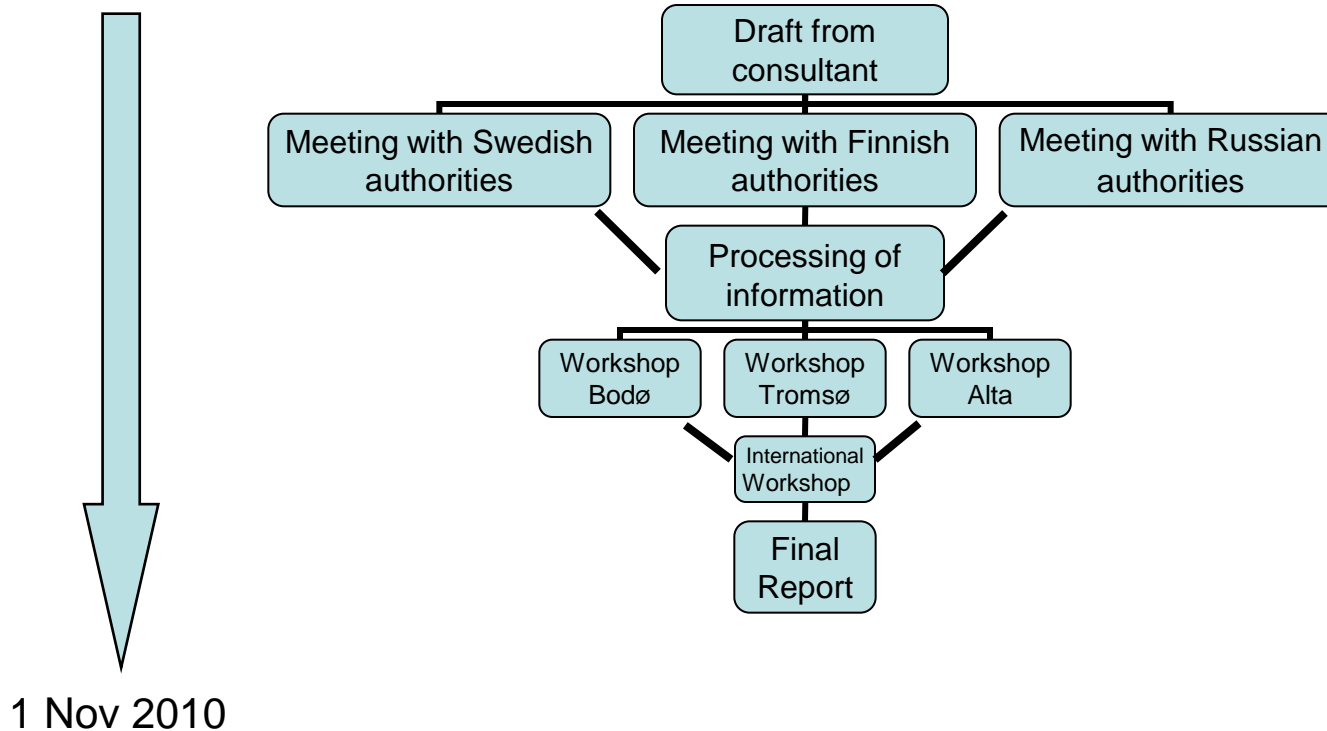
Organisation

- Steering Committee for the National Transport Plan 2014-2023
- NTP secretariat with the role of coordinator for the study
- Regional steering group
 - Director NPRA (leader)
 - Political representation, counties - County Commissioner for Transport and Communications
 - Regional directors from transportation agencies and Avinor
- Project Group (Regional)
 - Transportation agencies and Avinor
 - Managing representation CC
 - Barents Secretariat
Project manager NPRA
- Collaboration with corresponding public authorities in the other countries
- Update the management group for BEATA (Barents Euro-Arctic Transport Area)





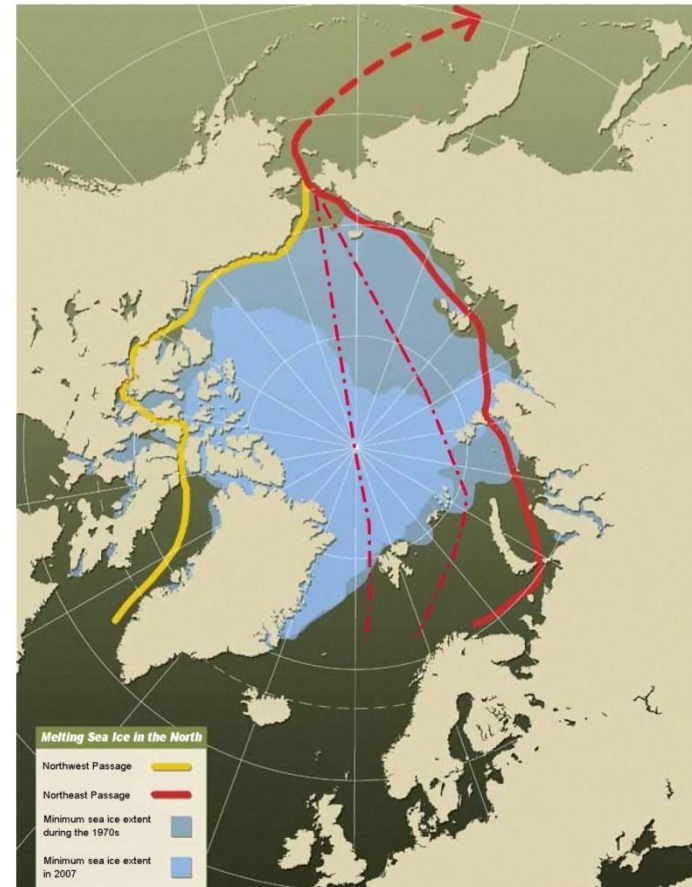
Phase 1 - Procedure for performance





Phase 1 of the study

- ✓ Evaluate developments: trends/trajectories in the High North (markets, climate, population etc.)
- ✓ Studies of trade/industry
 - Oil and gas
 - Fisheries/aquaculture
 - Tourism
 - Mining
 - Manufacturing
 - International trade/transport



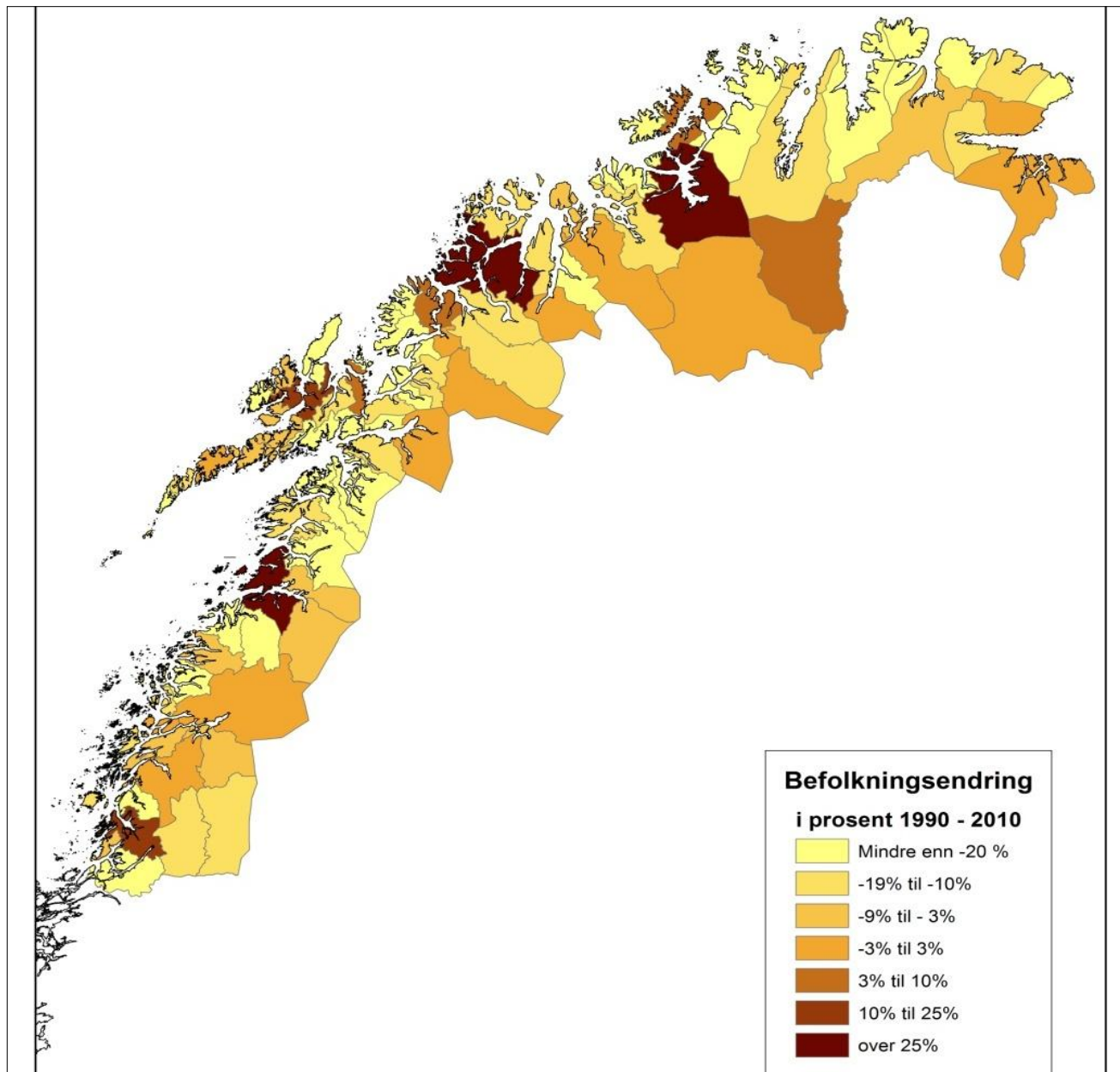
--- Potential shipping lanes across the Arctic Ocean

vegvesen.no

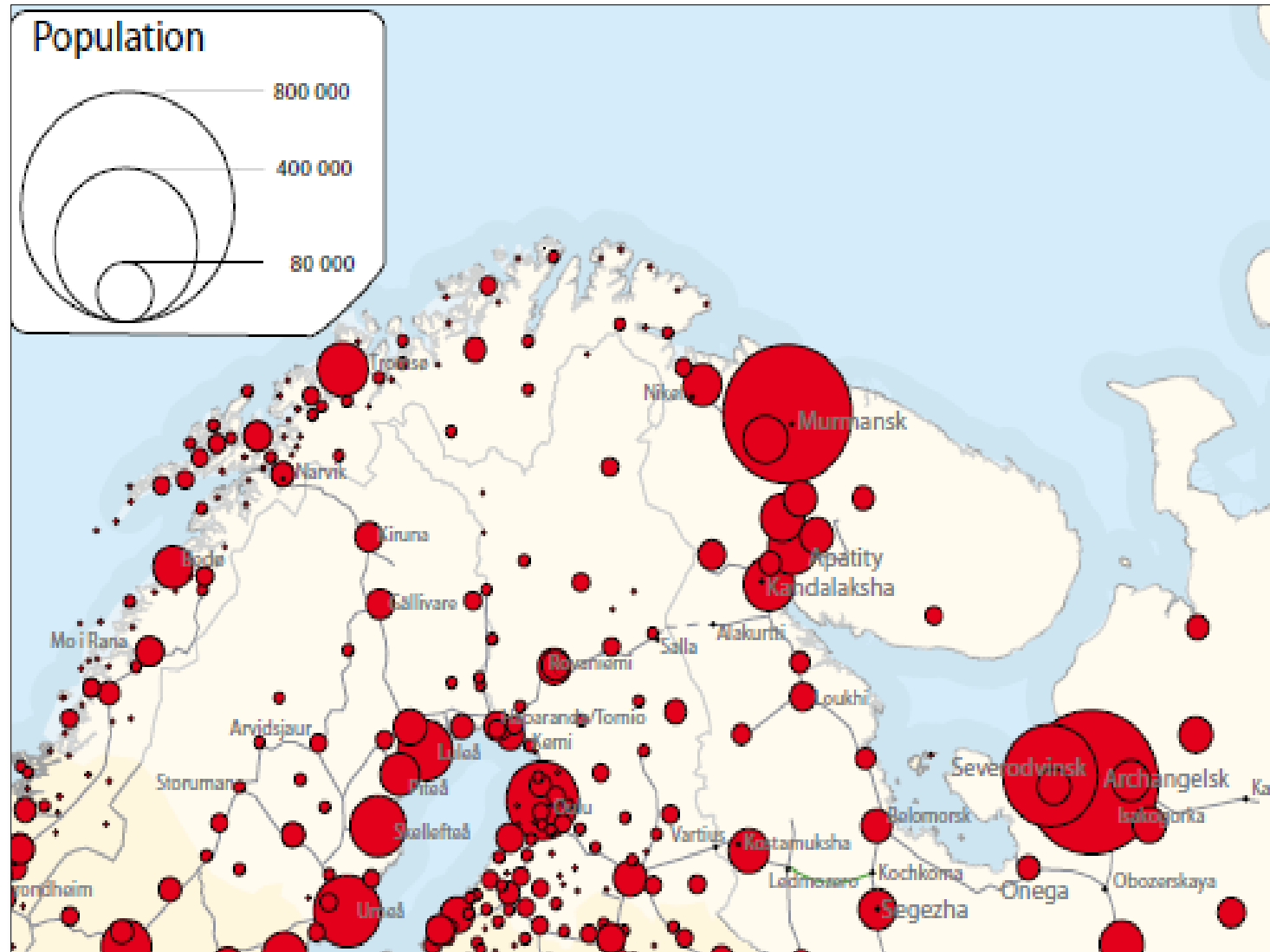
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Population changes 1990-2010



Population in the Barents Region

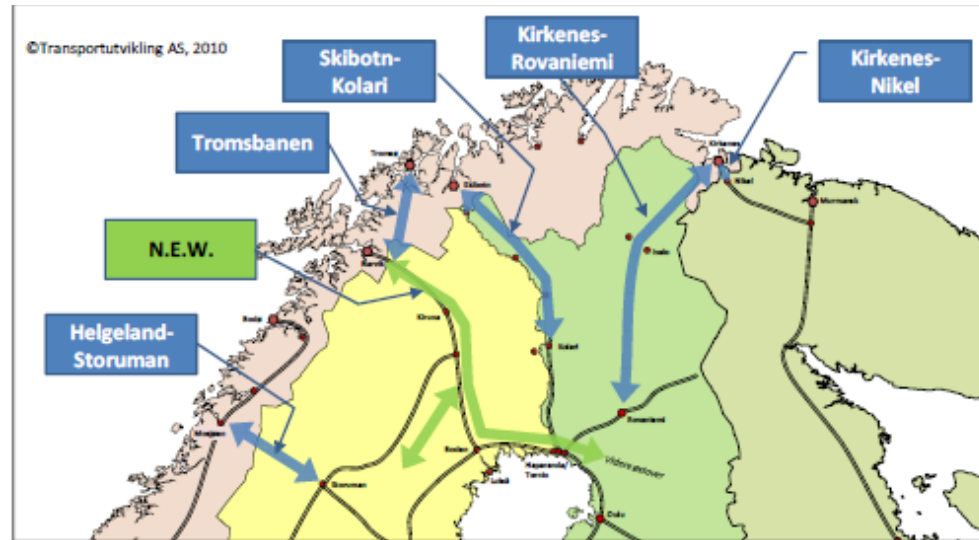


Two future scenarios

	Future scenario 1 – substantial growth	Future scenario 2 – moderate growth
Resources, climate and the environment	<p>Major discoveries of oil and gas</p> <p>Major new ore discoveries, particularly in our neighbouring countries</p> <p>Rapid ice melting, Northern Sea Route in operation 5 months a year</p> <p>Warmer ocean temperatures, diseases move aquaculture further north</p>	<p>Minor discoveries of oil and gas</p> <p>Ore discoveries in our neighbouring countries</p> <p>Ice melting, Northern Sea Route in operation 3 months a year</p> <p>Slightly rising ocean temperatures, gradual shift of aquaculture further north</p>
Economic and market trends	<p>Economic growth and rising raw material prices</p> <p>Strong demand for seafood</p> <p>Increasing demand for Arctic tourism</p>	<p>Moderate economic growth, weak growth in Europe</p> <p>Rising demand for seafood</p> <p>Arctic tourism only for a select group</p>
Political framework	<p>Rapid, comprehensive and coordinated development of oil and gas fields</p> <p>Favourable energy regime for industry</p> <p>Targeted tax reductions in Northern Norway</p> <p>Coordinated policy for all sectors and regions</p>	<p>Slow clarification, restrictive awarding of exploration and production licences, environmental protests</p> <p>Higher electricity prices for industry</p> <p>Relatively uniform tax levels throughout Norway</p> <p>Fragmented (localisation) policies</p>

Key considerations – phase 1

- ✓ The High North is Norway's most important strategic priority area
- ✓ Resource-based industries have great potential: fisheries/aquaculture, oil/gas, mining, manufacturing and tourism
- ✓ Challenge: establishing competence jobs in natural resource development
- ✓ Requires targeted efforts and cooperation with the main cities
- ✓ Discoveries of ore in Sweden and Finland and of oil/gas in Russia may contribute to increased cross-border activity (need for new railways)
- ✓ Core airports, good ports and roads in the regional development centres, good connections from the periphery (aquaculture) to the E6 and good connections with neighbouring countries

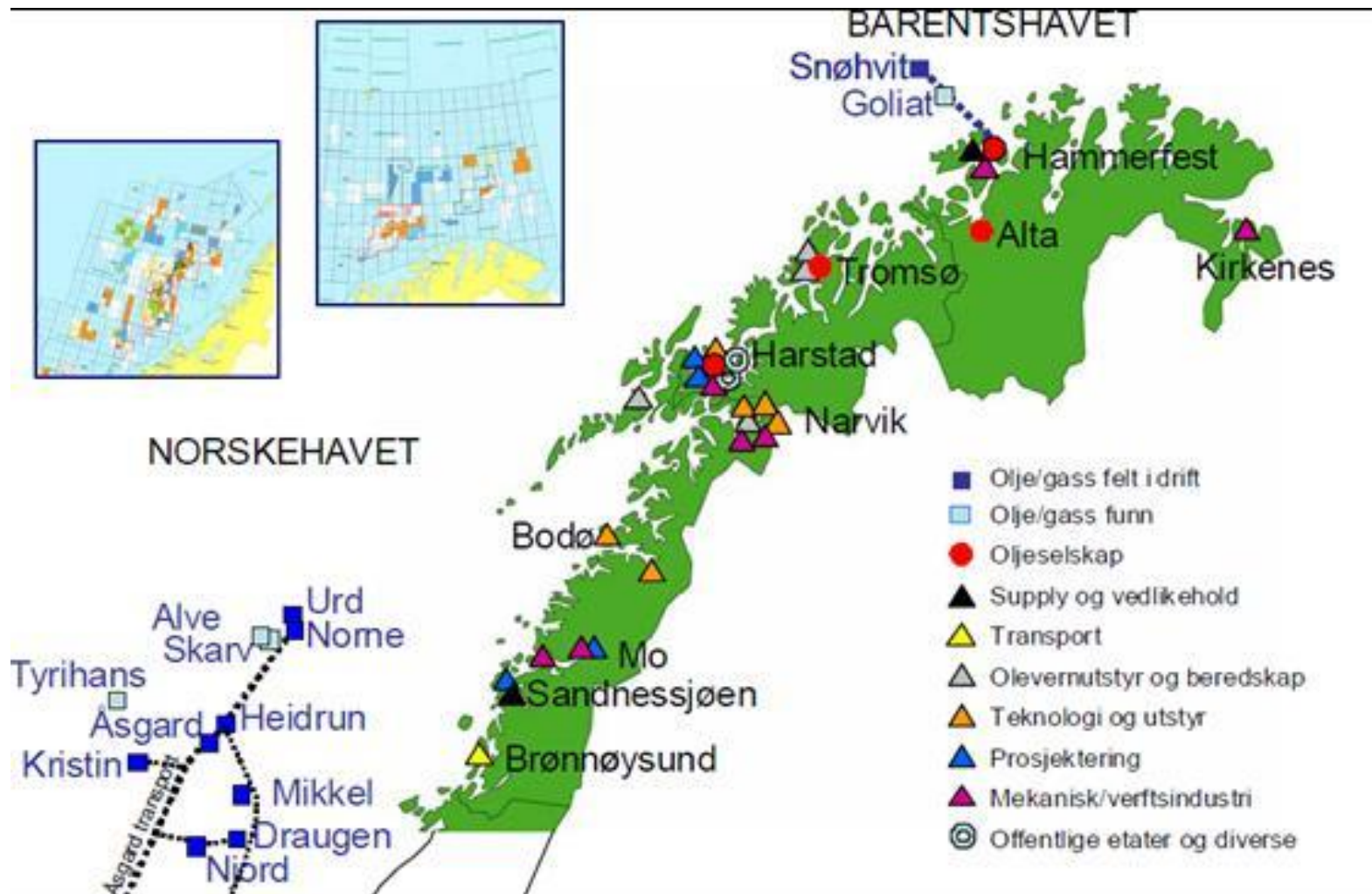


Petroleum

(Oil – Gas)

- ✧ **There is reason to believe that there are major oil and gas reserves in the far north.**
- ✧ **Deliveries to this sector from industry in Northern Norway are substantial and growing.**
- ✧ **There should be increasing industrial utilisation of LNG – from the perspective of Northern Norway.**
- ✧ **Developments in Russia represent vast opportunities for supply bases and reloading of oil in Finnmark, as well as deliveries to Russian stakeholders.**
- ✧ **Four major supply bases - existing industrial clusters (Helgeland, Hålogaland, Hammerfest and Kirkenes)**
- ✧ **Each supply base should have a deepwater quay, good connections to the major road network, a helicopter base and a core airport.**
- ✧ **Oil production in Northern Norway has a short history. Relatively few fields north of Trøndelag have been developed.**

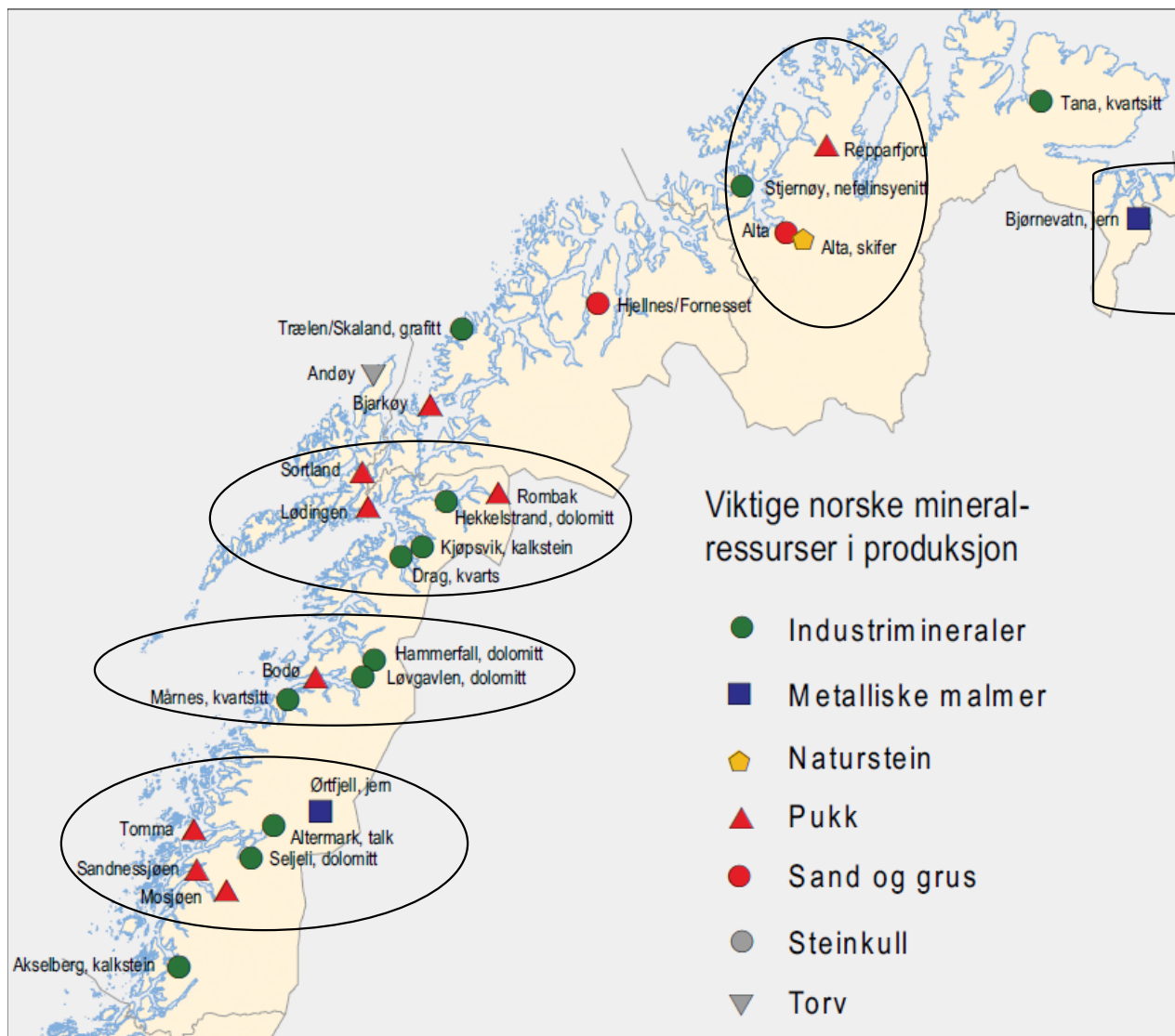
Fields and activities



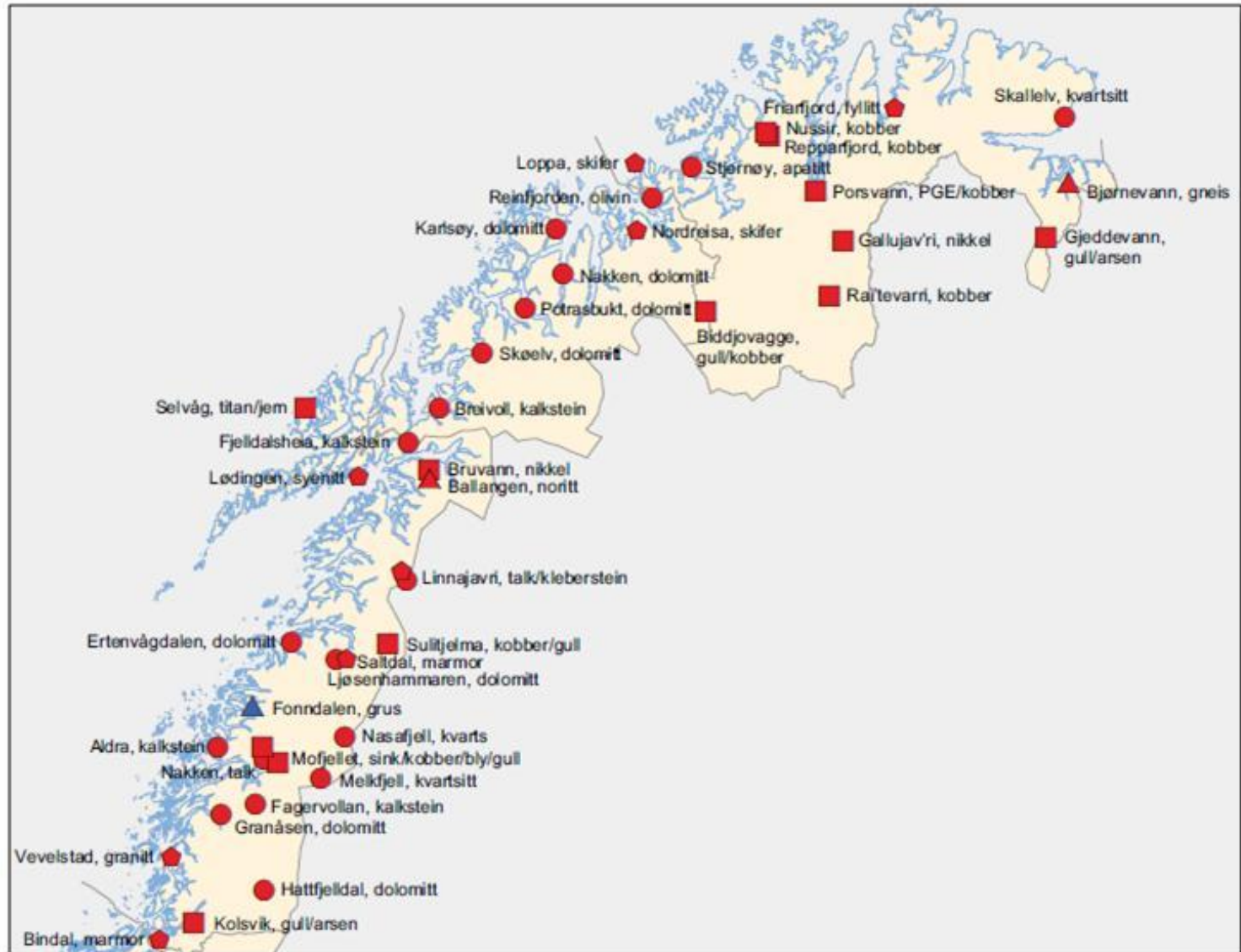
Mining operations

- ✧ Growing world demand for ore and minerals, particularly in Asia
- ✧ Increasing iron ore mining in Sweden and Finland
- ✧ Growing need for ore transport on the Ofoten railway line
- ✧ There may be a need for a new railway line from Finland to an ice-free port in Norway.
- ✧ Different financing schemes for this type of infrastructure must be considered.
- ✧ Possible reloading of Russian ore in Kirkenes
- ✧ Upgrading of Narvik and Kirkenes ports to handle more ore
- ✧ Improved seaways, larger ships
- ✧ The Northern Sea Route will also be used for ore transport during the months when it is in operation.
- ✧ Mining of industrial minerals and ore will increase in Northern Norway.

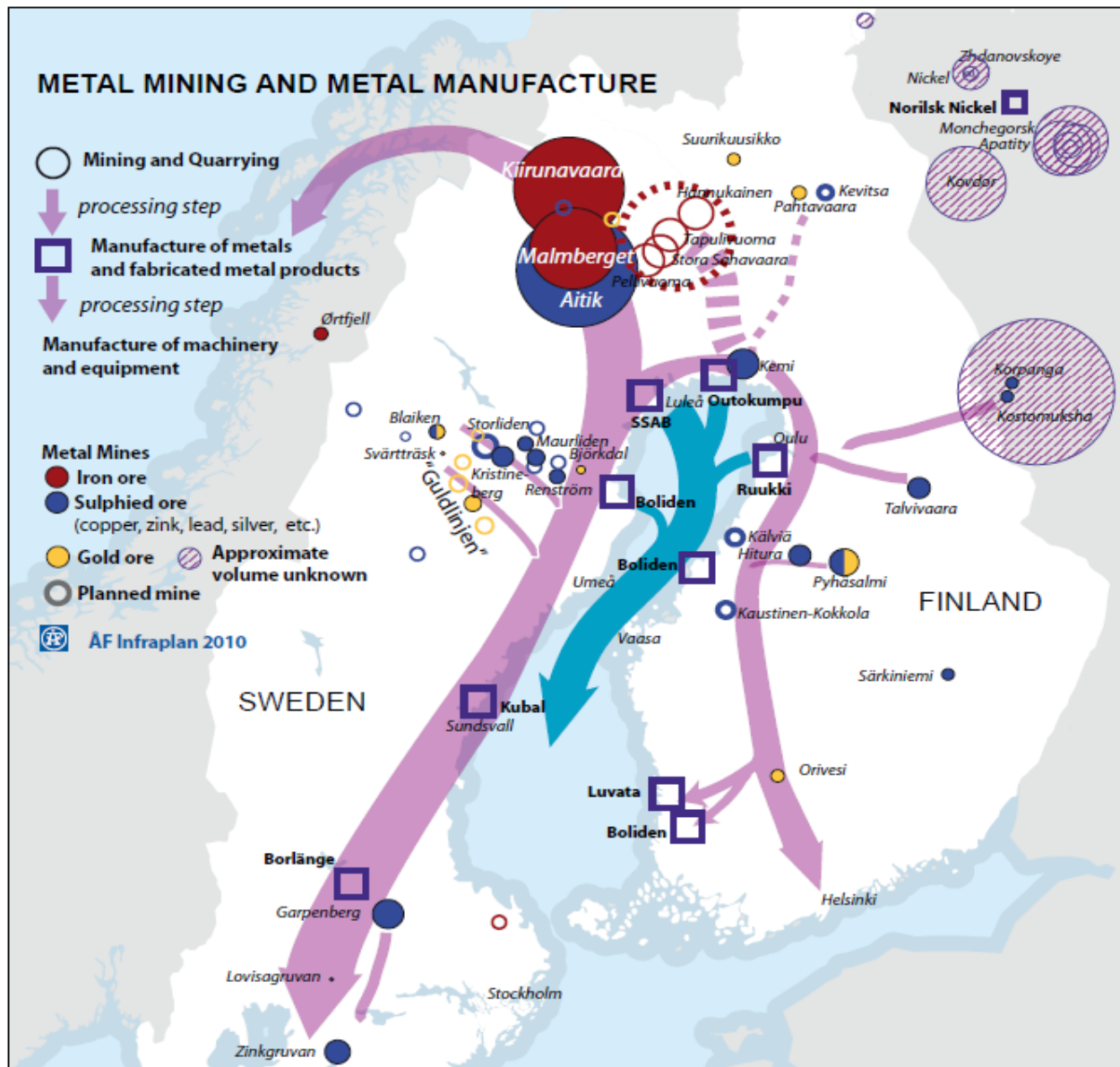
Current Production



Possible mineral deposits

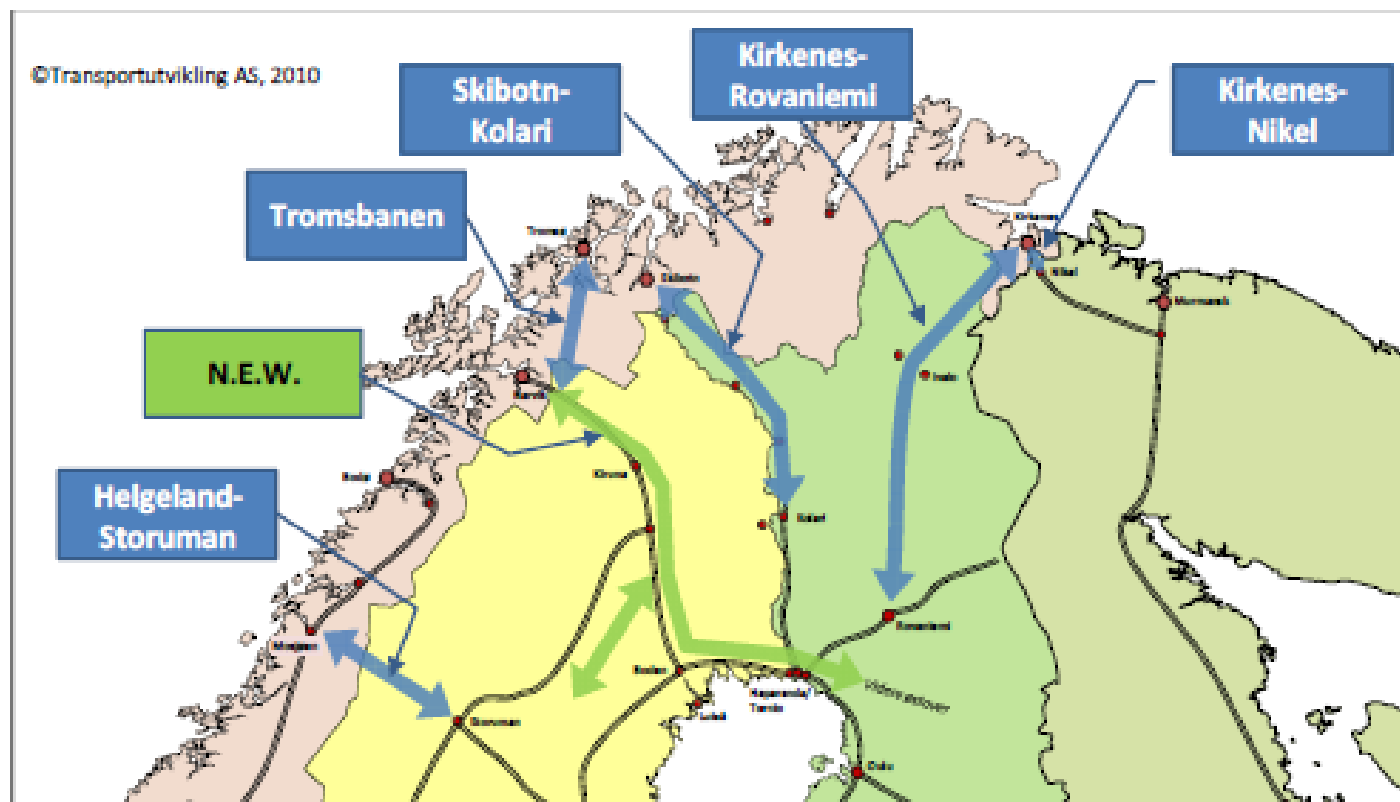


Ore



Transport Corridors Norway-Sweden-Finland-Russia

(Regional project initiatives)



Figur 6-1: Internasjonale jernbanekorridorer i nord, eksisterende og prosjekter

Distances and rail gauges

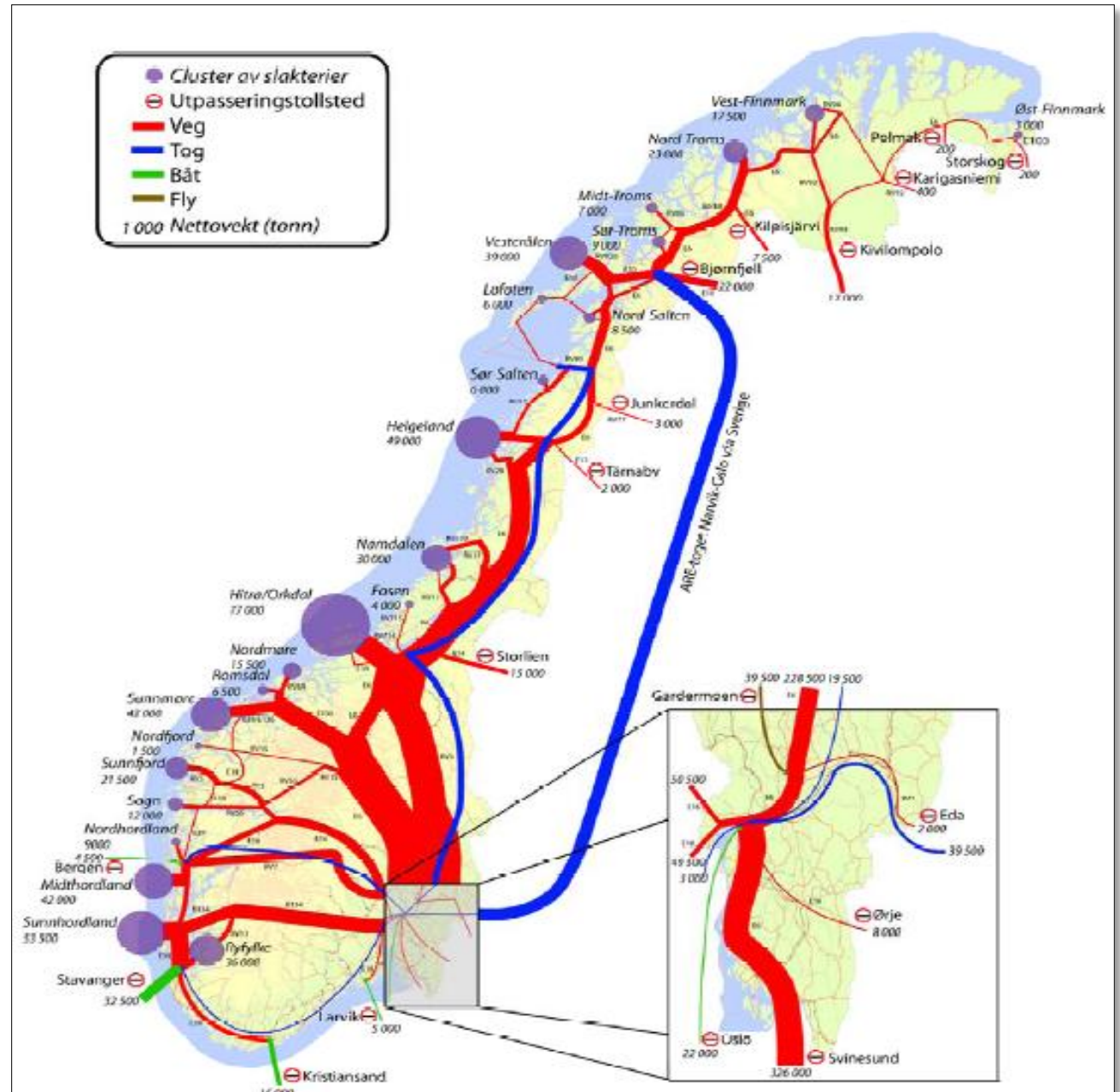
	Narvik – Luleå Ofot-/Malmbanen	Skibotn - Kolari	Kirkenes- Rovaniemi	Kirkenes- Nikel	Helgeland- Sverige
Distanse km	597	312	480-550	40	250
Km i Norge	42	46	53-127	20	
Sporvidde	1435	1524	1524	1520	-

Kilde: Transportutvikling a/s.

Fisheries and aquaculture

- ✧ Norway is one of the leading exporters of seafood
- ✧ The demand for fresh fish is increasing rapidly: **Saltfisk, klippfisk, tørrfisk og frossen sild !!!**
- ✧ Most of the increased production is from fish farms.
- ✧ Fish processing plants for wild fish concentrated in fewer locations
- ✧ Slaughtering of farmed fish is concentrated in larger slaughterhouses, but a rather decentralised structure still exists.
- ✧ Larger, more modern fishing vessels
- ✧ Aquaculture is moving north
- ✧ Ports and seaways should be dimensioned for more and larger fishing vessels
- ✧ A well-functioning, reliable road network to the south and east; building and upgrading of roads from slaughterhouses to trunk roads and railways; greater ferry capacity/ roads replacing ferries; and improvement of selected stretches on the E6
- ✧ "Fish by rail" from Bodø or Narvik to the continent
- ✧ Perhaps "fish by air transport" from Bodø, Evenes or Lakselv to Asia

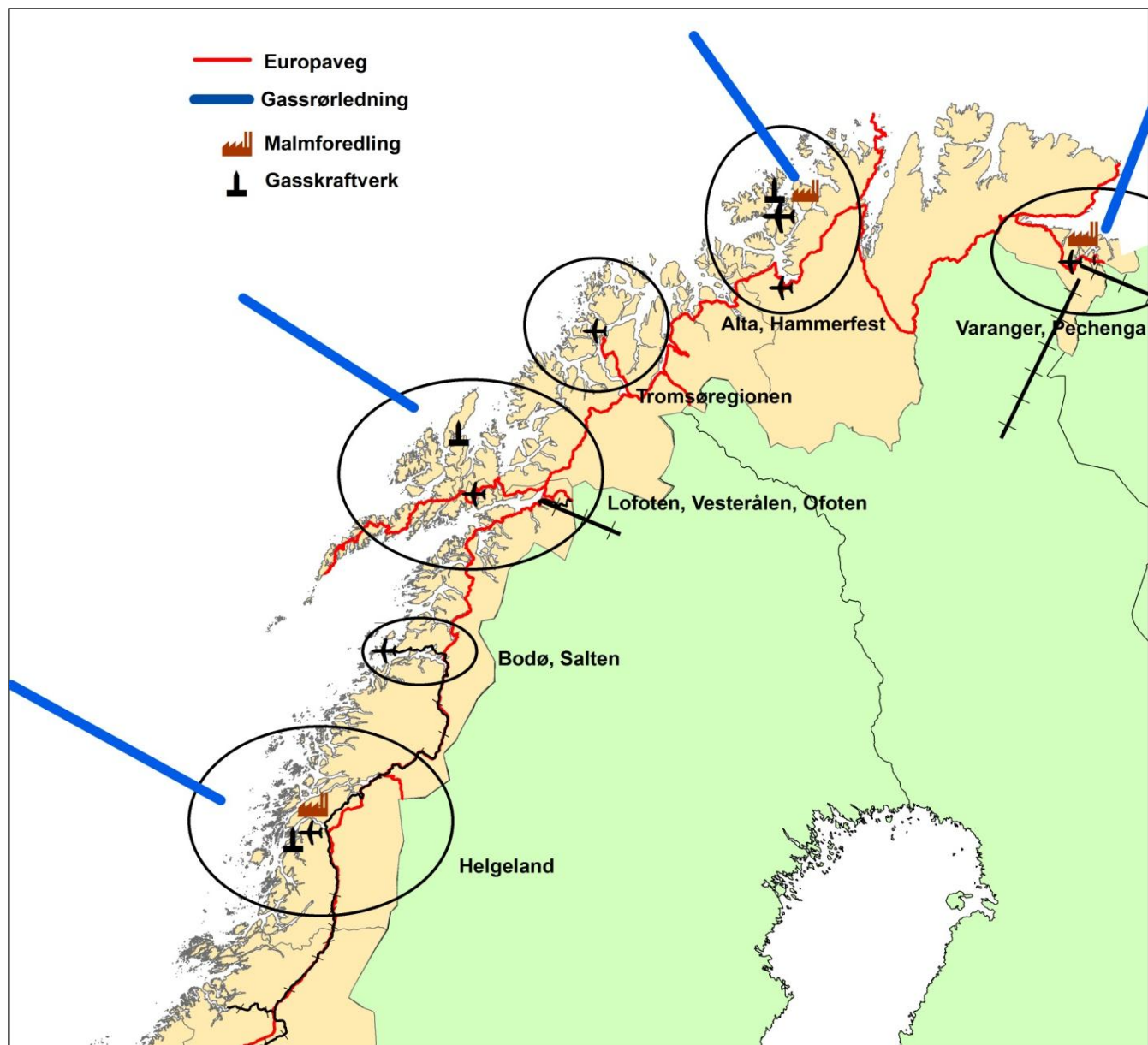
Transport of salmon and trout



Industry

- ✧ Nordland County has the most industry in Northern Norway (and ranks near the top on a national basis) - Finnmark's industrial sector is growing rapidly
- ✧ The most important industrial areas are:
 - Helgeland
 - the triangle: Mo – Mosjøen – Sandnessjøen
 - Salten
 - the triangle: Glomfjord – Saltdal – Sørfold
 - Midtre Hålogland
 - Hammerfest – Alta
 - Sør-Varanger
- ✧ Shipping dominates, but there are also substantial volumes of road transport and rail transport (where available)
- ✧ Strong demand for metals and metal products
- ✧ Need for favourable long-term power supply agreements for industry
- ✧ Oil and gas industry provides a basis for local supply industries on a limited scale.
- ✧ Industrial clusters are important for many stakeholders.
- ✧ Upgrading of the E6 and secondary roads
- ✧ Core airports in the industrial clusters, direct routes
- ✧ Improved ports in the industrial clusters, particularly in Kirkenes (NSR)

Priority areas -
4 regional development
centres and 2 cities



International trade / International transport corridors

- ✧ The Northern Sea Route and a railway line between Norway and Asia through Russia could open up new opportunities.
- ✧ The Northern Sea Route may eventually be open 5 months a year.
- ✧ Oil/gas activities in Russia increase the need for seagoing transport.
- ✧ Development of Kirkenes and Narvik ports to intermodal nodes for international traffic and for ore export
- ✧ There will be a need for a concentrated, specialised intermunicipal port structure.
- ✧ Relevant freight hubs should be planned in relation to the location of petroleum and industrial activities.
- ✧ There will be a need for heightened surveillance and preparedness along the coast.



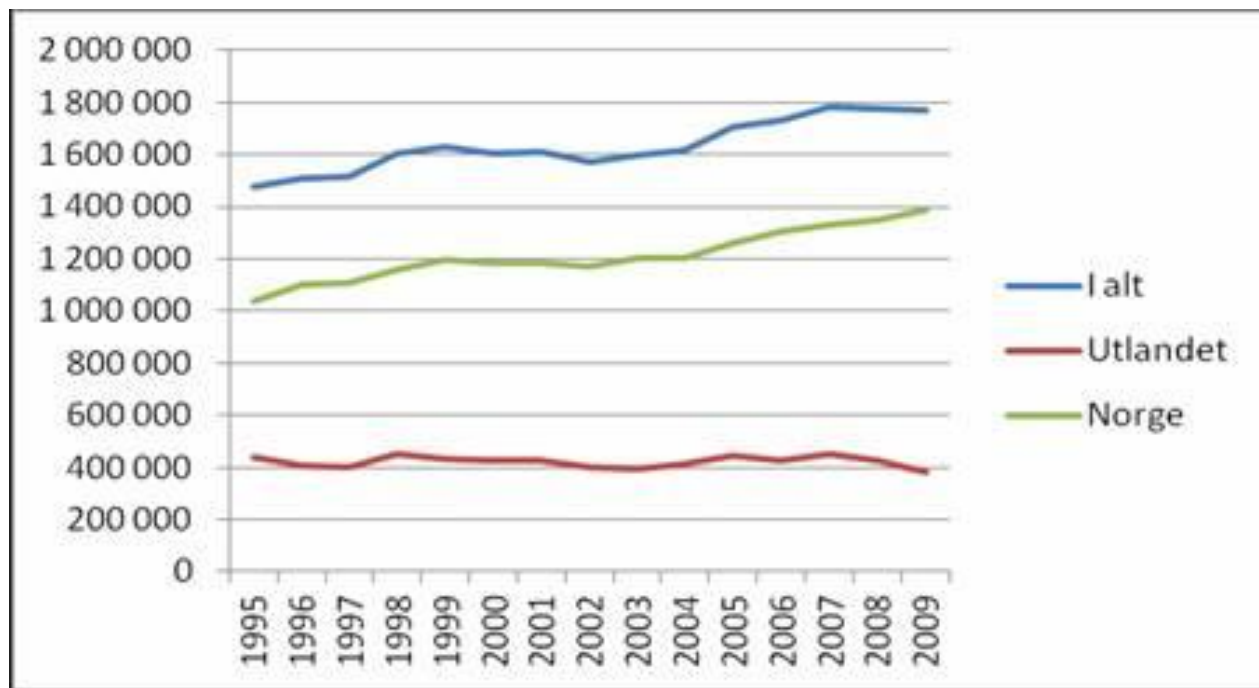
Northwest Passage and Northern Sea Route



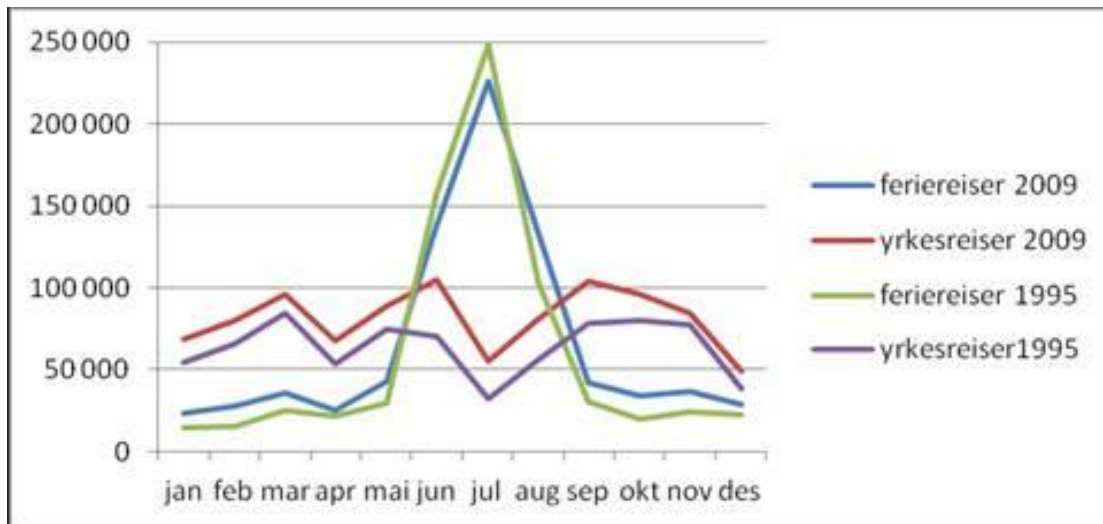
Tourism

- ✧ Increasing demand for Arctic tourism
- ✧ However, Norway has not managed to attract more foreign tourists, nor have we succeeded in developing winter tourism
- ✧ Develop ports for increasing calls by the Coastal Express Liner and cruise ships (turnaround ports)
- ✧ Incentives for new air routes and more charter traffic must be developed. It is better to have fewer airports with longer runways than the existing airport structure.
- ✧ Continue to develop the National Tourist Routes, in both quality and quantity; promote round-trip tourism
- ✧ Better information: road signs and route information
- ✧ Develop ferries/express boats as tourist experiences
- ✧ Northern lights, ice and snow, darkness/light, the coast and well-known destinations such as Lofoten and Nordkapp represent enormous potential
- ✧ Better cooperation on marketing and sales is essential

Annual overnight stays in Northern Norway in hotels and similar establishments from 1995 to 2009 for Norwegians, foreign visitors and combined totals



Overnight stays in hotels in Northern Norway in 1995 and 2009 by month and purpose of visit:



Transport challenges - summary

- Increased capacity on the Ofoten railway line (ore + the Arctic Rail Express)
- New railway line from Finland and Russia (ore)
- More concentrated port structure for transferring freight from road to sea transport
- Sufficiently large harbour areas for various activities
- Seaways and ports dimensioned for large vessels
- Increased surveillance and preparedness along the coast, safer seaways
- Upgrading of secondary roads from peripheral areas to the E6 and the railway line
- Upgrading of the E6 and important roads to neighbouring countries
- Sufficient skilled labour and competence is decisive for economic development
- Major airports in the Helgeland area and in Hammerfest to serve the petroleum industry
- More and larger airports, better roads for tourists, better cruise ports and information
- Needs that have become evident during phase 1 must be considered more closely in phase 2



Interplay between Needs and Measures

- Measures to meet existing needs
- Measures that provide the basis for new economic development
- "The chicken and the egg"

Oslo, 27 April 2010



Agreement to facilitate travel for local residents



Norwegian Broadcasting Corporation, 2 Nov 2010: "Ensures the free movement of labour

The agreement means that 40,000 Russians are allowed to travel freely to Sør-Varanger municipality, while 9,000 of the residents in the Norwegian border municipality can likewise travel to Russia.

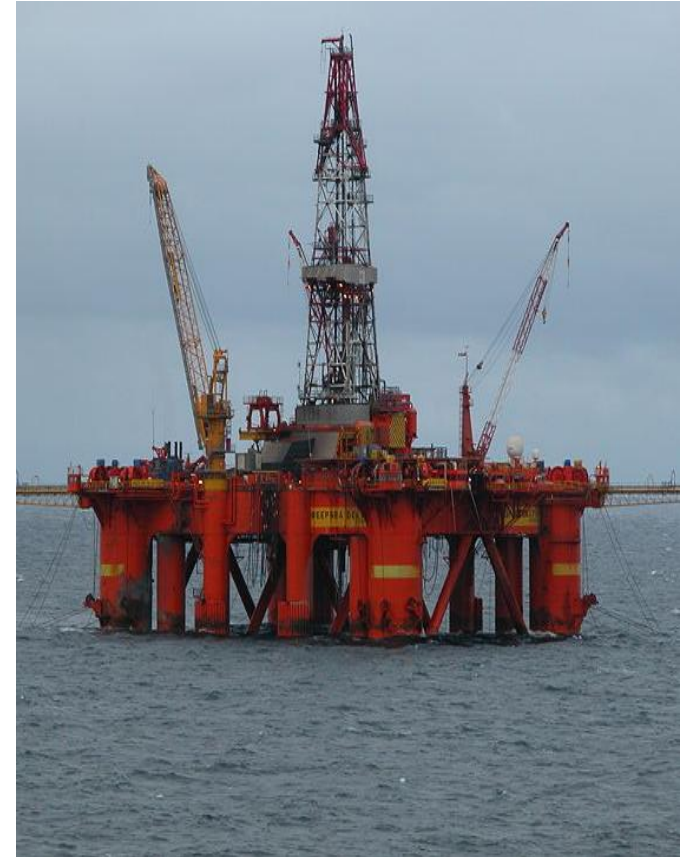
On the Russian side this includes Nikel, Petsjenga and Zapoljarny. On the Norwegian side the agreement covers Kirkenes and vicinity.

One of the purposes of the border traffic permit is to ensure the free exchange of labour between Norway and Russia."



Phase 2

- Compare results from phase 1 with existing plans; draw attention to the strategic development of a national transport network in Northern Norway (important to point out the total needs - all transport agencies)
- Propose effective future transport corridors in the High North
- Need for a railway line from Tromsø to Narvik, or from Tromsø directly to Sweden?
- "The twin cities" of Kirkenes/Sør-Varanger and Nikel/Pechenga – assess the need for connecting infrastructure
- Svalbard – possible future significance?

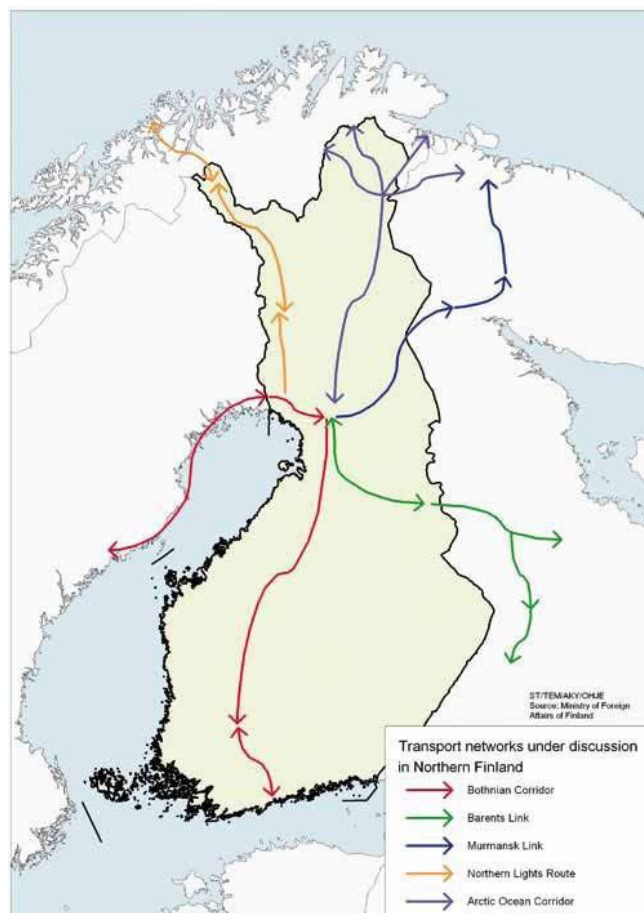


1 May 2011



What will the High North look like in 2040?

Finske strategier for utvikling av transportkorridorer i nord



Svenske strategier for utvikling av transportkorridorer i nord



Figure 6:2 *The Bothnian Corridor, existing main transport corridors and potential new and connecting corridors.*

Source: AF Infraplan/Bothnian Corridor

Regional policy and ambitions (Pia Svendsgaard)

- ✧ "The (Barents) region must focus more on processing and manufacturing to avoid becoming a solely raw material supplier."
- ✧ "Become a region where new industries, based on gas and ore, are emerging and growing."
- ✧ "Barents region needs a holistic plan for effective transport infrastructure – not isolated bits and pieces"
- ✧ Focus on ports and railways – intermodal transport hubs.