



Foresight Workshop: The North Calotte Region

The Nordic Working Group for Sustainable Development in the Arctic has initiated the project *Foresight Analysis for Sustainable Regional Development in the Nordic Arctic*. The purpose of the project is to assess opportunities and challenges for sustainable regional development and to identify future development perspectives.

The foresight analysis comprises a workshop series of three steps: the vision phase, the realism phase, and the realisation phase. In the last, realisation phase, two transnational workshops are organised: one for members of the West Nordic Council and one for members of the North Calotte Council and other representatives.

This is a summary from the foresight workshop in the North Calotte Region held in Luleå 16 March 2016. Following from the regional/national level workshops, thematic discussions at the workshop included how cross-border collaboration can be strengthened with regard to infrastructure, job creation and business development, and education and competence development.

Five maps, which were produced for the workshop and the participants list, are added as appendices.



Infrastructure

Physical infrastructure planning and implementation of the Joint Barents Transport Plan was discussed. It was argued that planning should be done now adopting a 5 and 10 years perspective. The planning should focus on supporting the transportation of goods, raw materials as well as passengers travelling for both work and leisure in the North Calotte Region. The Arctic Corridor (road connecting, Norway, Sweden and Finland in the future) might be realised through a joint EU initiative, if it will enhance transport connections and strengthen the region. It was discussed that there is a joint Barents infrastructure plan, but no joint Nordic infrastructure plan. Issues of cross-border heavy good transport were also discussed. In Sweden heavy goods vehicles are allowed to weigh up to 64 tonnes, whereas in Finland trucks can weigh up to 76 tonnes. Further, it was stressed that the low quality of many roads across the North Calotte Region complicates transport, and several roads are unsafe and need to be renovated. It was also highlighted that the opening hours of the customs locations should be extended. There is a need for joint lobbying from the North Calotte Council toward the nation states.

- Barrier: Weak interest/acknowledgement at national level to develop the road system. There is more interest from the EU and the regional level.

Arctic Airlink has direct flights between Oulu, Luleå and Tromsø. It has not been easy to get the airline into operation and there are still challenges in terms of being able to compete with other low-fare airline companies. It is in operation for a 5 year probation period. Before Arctic Airlink air travel between Oulu and Tromsø would require travelling with 2-3 flights due to necessary changes at the national capitals. The saved travel time makes a difference especially for businesses in the region. Some workshop participants emphasised that better infrastructure would strengthen conditions for more commercial flight connections, but fitting schedules between airlines also mattered. Further direct flight routes are seen as an opportunity to provide package tours across borders. The Interreg co-financed project Visit Arctic Europe is focusing on branding the North Calotte Region as one destination. To do this successfully it is considered important to have direct flights linking the destination.

- Barriers: Airport structuration process, profitability/passenger numbers. Lack of / little advertising.

Coordinated timetables for buses were proposed since today the timetables are not synchronised across the borders.

- Barrier: Bus traffic is privatised in Finnish Lapland, and it was mentioned that bus companies do not find sufficient incentive for coordination. Different regulatory frameworks limits cross border public transport.

Enhance the capacity of the railway from Sweden to Narvik and extend it to Bodø and Tromsø to promote business development. It is vital for the business community that there is infrastructure to support transportation of raw material produced in the region. In Narvik harbour facilities to manage the transported goods that are being shipped abroad are currently being improved.

- Barriers: long distances, the width of the railway tracks differ in Sweden and Finland. In Finland and Norway some parts of the tracks do not have electricity. Nordlandsbanen connecting Bodø and Trondheim, where electricity will be implemented, was mentioned as an example where it is made possible.

Broadband improvements are needed across the North Calotte Region. The majority of households do have a broadband connection but there is a need for a higher speed connection. More and more services are provided online, also including -E-health.

- Barriers: It is not profitable for commercial actors to invest in improvements to the infrastructure. There is some state co-financing, but the speed and coverage of broadband is a problem.

Cross-border health care is a potential area for collaboration.

- Barrier: The Finnish social and health services reform affects cross-border health care, because responsibilities and many practicalities still unclear.

Housing is an issue to be addressed. Especially in the larger towns there is a housing shortage, and in Norway a risk of gentrification, due to the dominant private ownership, was underlined. In Sweden there are more rental apartments, but often there are long queues, e.g.

12 years is common in Luleå, and often it is expensive to rent. There is a risk that people become tied to their houses. The risks of building are too high due to low real estate prices and buying or building a house is not an option for young, mobile people. It was proposed to introduce a real estate programme for construction of cheaper houses and apartments.

Energy infrastructure was discussed in connection with hydropower. In cases where the municipalities profit significantly from hydropower it leads to inter-regional differences that also constrain processes of merging municipalities. Further, Joint electricity grids are problematic because Norway is dependent on, and affected by laws passed by the EU through the EEA participation. Electricity surplus in Norway could provide neighbours with more sustainable sources of energy, but a grid is not in place. Norway is motivated by linking better to neighbouring countries and thereby to the European electricity grids. At the workshop it was discussed whether electricity provision should be considered an issue of welfare distribution, or a profit driven activity. The reason why countries involved might be hesitant to be connected to the grids is that electricity and energy provision is also considered a national security issue.

Job creation and business development

Cross-border cluster cooperation should be promoted in order to facilitate contact between companies and more knowledge sharing in the North Calotte Region. Intermediate institutions are needed for this process. It was highlighted that larger companies tend to outsource more and more which gives room for development of SMEs in the supply chain. Cluster cooperation should also include strengthened collaboration between universities and companies. For example it was highlighted that companies could benefit from the research-based knowledge of higher education institutions to become better prepared to meet future challenges. Cluster cooperation should also promote and further develop the unique Arctic knowhow and technical expertise across the borders. Discussants mentioned that some of the growth perspectives in the Arctic have cooled down (related to mining, oil and gas development) and that it is still difficult to develop commercial activities based on natural resources in the region, and therefore incentives for job creation and business development in the High North is crucial.

Utilise comparative advantages of the region. The location of the big data centres from Facebook in Luleå and car test activities in northern Sweden are some example of how this is being done. The North Calotte region can benefit from further utilising the cold climate and related technology through more systemic collaboration on specific Arctic R&D development potentials in the North Calotte region. Also collaboration in tourism destination development was discussed in this context. For example the North Calotte Region is considered by international tourists as one destination.

- Barrier: lack of technical universities in Northern Norway.

New ways of funding to support entrepreneurship and business development were discussed. The public sector could assist by providing advice and a digital overview of opportunities for business loans as well as other ways of financing, including private investors and crowd sourcing. Another example would be to support local businesses by inviting them for public tendering processes.

- Barrier: EU public procurement regulation

Initiatives to stimulate a diverse labour market should be promoted. It was suggested to introduce lower taxes on employment in order to support more job creation in SMEs. Also the potential for developing a cross-border strategy and action plan to match educated immigrants with companies was discussed. It was mentioned that in Norway there are twice as many entrepreneurs with a foreign nationality than with Norwegian nationality. One possible explanation is that they have been pressured into starting up businesses due to a lack of other opportunities. Another possible explanation is that their different cultural background has been an asset for them in starting up and contributing with something new.

- Barriers: legislation needs to be harmonised between countries

Digital opportunities in the development of apps and IT applications were highlighted. In Norway there is a trend that people choose to work as freelancers. They are characterised as electronic workplaces which are not place-bound but dependent on internet access.

The untapped potential of tourism development should be utilised, for example by supporting competence development in the tourism and service industries. Potential for more development of food tourism was discussed and in connection with this the relevance of looking to Italy for inspiration on how tourism actors can organise themselves to support such a development. The success of tourism actors in Finland in developing package tours was discussed, and how the industry in Northern Norway and Swedish Lapland can learn from this. Development of cross-border package solutions will be one of the issues addressed by the Interreg co-financed project Visit Arctic Europe. There is a need for competence development in the tourism industry. For example there is a lack of guides, lack of supply of local foods and the service industry in general lacks personnel. According to some workshop participants it has to become easier to live in one country and work in another within the region, to secure complementarity and flexibility in the volatile labour markets, also in tourism. It was mentioned that young people and entrepreneurs in Norway generally have a global mind-set, and that the visions of young entrepreneurs should not be missed in this context. Also potential conflicts arising from the use of “common areas” in terms of who can create profit and how in natural areas was discussed in relation to tourism development. This also includes an inherent conflict between development of natural resources and indigenous rights.

- Barriers: No tourism taxes are charged to develop local services. The revenue of tourism activities do not always stay in the region. It is not currently possible to charge for land-use, and this can be considered necessary because tourism activities in some cases take up space that prohibits alternative commercial use.

Sustainable bioeconomy and focus on opportunities rather than challenges moving forward were discussed at the workshop. Blue bioeconomy, for example focusing more on aquaculture, was highlighted as an opportunity. Activities in Iceland, where companies manage to utilise all of the fish resulting in products such as cosmetics, purses, animal food and fish fillets, are considered relevant to learn from. Opportunities for enhanced processing are problematic due to global market condition, e.g. fish is exported from Norway to be processed in China. The question is whether the region can compete with other qualities such as ethical production, organic products, strict environmental standards, good employment conditions.

Opportunities would involve a niche approach rather than bulk production and the North Calotte can be associated with high quality products for conscious consumers.

- Barriers: Trade barriers in the North Calotte, because Norway is not an EU Member State, high transport costs.

Large-scale activities/mining has experienced a downturn, also in the North Calotte region and this demonstrates how the region is influenced by global processes. However, it is still an important economic activity in terms of employment. It continues to be a challenge to attract and recruit certain competences in large scale industries. Jobs are created in the construction phase, but many disappear once they are in operation.

- Barriers: Fly-in-fly-out effects/knowledge and skills, difficult for local businesses to “get in”, local communities must build social infrastructure, commodity price dependence.

Education and skills development

Internships should be an integrated part of education programmes from elementary school through to university. The call for more internship placements during school (13-15 years old) is related to the relevance of exploring different career options at an early stage. Germany was referred to as having a good system in place for this. Through internships and school projects students also become aware of the businesses in the region. Good career advisors at schools were highlighted as being important, as well as securing East-West connections and widening the horizon of the decision-makers.

- Barrier: There is a language barrier with regard to cross-border internships.

A greater focus on gender in schools was discussed particularly in connection with the comparatively lower number of boys that choose higher education. It was questioned whether the “right” education opportunities are in place, and how to motivate boys to take higher education. A recent study conducted in the north of Sweden concluded that the teachers play important roles as motivators in schools, and it was proposed that more should be done to strengthen the competences of teachers as motivators and study advisors. The level of

education is lower in municipalities at longer distances from universities, and the differences are increasing. There are a limited number of knowledge intensive jobs in the region, which entails that many leave after completing higher education, and this match between education and labour market also needs to be addressed.

Closer cooperation between universities, the business community and regional authorities was discussed. The universities, university colleges, and vocational education institutions need to be more in tune with the local and regional competence needs. This also calls for companies in the region to be more proactive and engage in dialogue with education institutions. Cross-border collaboration between regional authorities and education institutions should be strengthened in terms of conducting joint analyses of the education needs and to develop common and complementary education programmes. It was also discussed that crisis can lead to new solutions and cooperation. Companies and education institutions could collaborate on crisis management to make companies more resilient and for students to learn a vital skill.

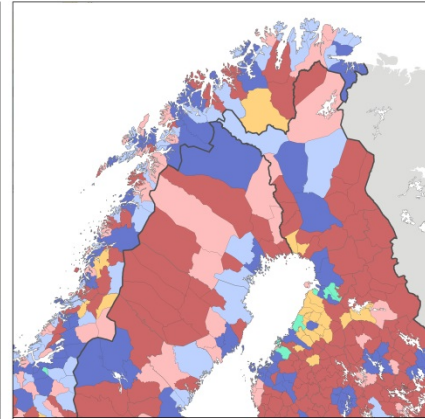
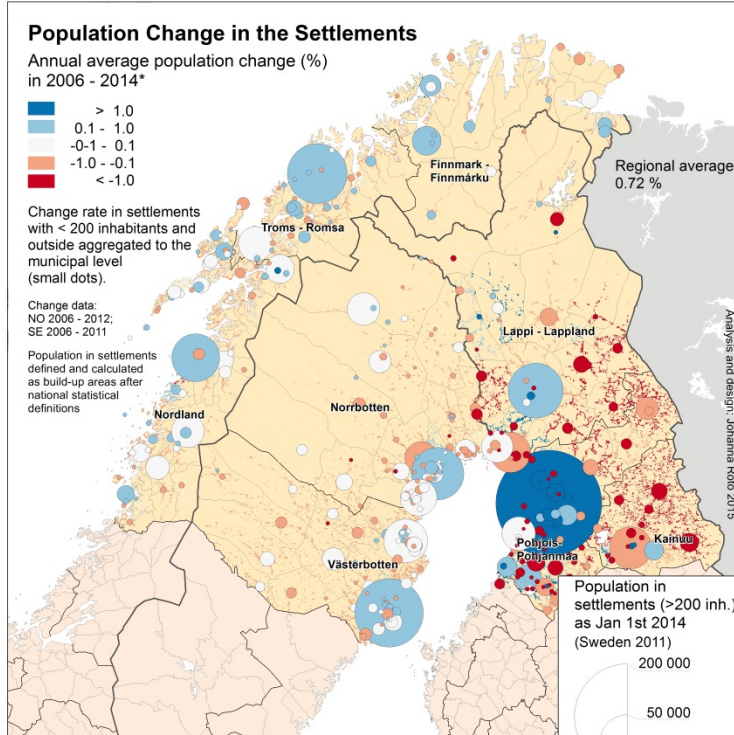
The introduction of flexible study plans adapting to societal change were proposed. This is currently being discussed in Finland due to the extensive budget cuts that challenge education institutions. Further, for some engineers and software developers, the knowledge development is moving so fast that in some cases the knowledge acquired by students is already outdated once they have completed their education. Room for more flexibility in such education programmes was called for.

Promote universities in the North Calotte region to attract more international students. It was proposed that there may be potential for establishing cross-border higher education programmes with Arctic specialisations. There is also potential for more student exchange semesters across the borders as part of existing education programmes.

- Barriers: Student payment requirements differ in Norway, Sweden and Finland, which makes it difficult to attract international students for a cross-border education programme. Local students are typically not interested in going for exchange semester in the north.

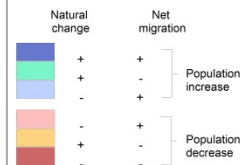
Competence development opportunities could be improved, including the option to take courses in other parts of the region. Education institutions in the North Calotte region could benefit from coordinating their programmes and offer complimentary courses. Possibilities to support job alternation leave for people employed in the private sector were suggested in connection with discussions on competence development. Tools that already exist such as “qualification funding” should also be promoted more. In some groups there was an extensive discussion on vocational training vs. academic education and the need for both of them in the labour market in different community contexts. Some participants stressed that a pattern needs to be broken, e.g. where children of unemployed end up in a similar situation. Recruiting these young people into the formal labour market is a challenge. Some participants stressed the importance of cross-sectoral collaboration between public and private partners, with an emphasis on removing mutual suspicion between private companies and educational institutions. The fact that young people today live in a different reality than older generations, as an effect of being linked to social media, their views on what constitutes a job opportunity might be different.

Population change and gender

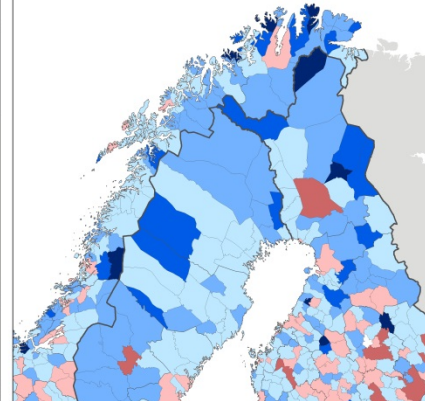
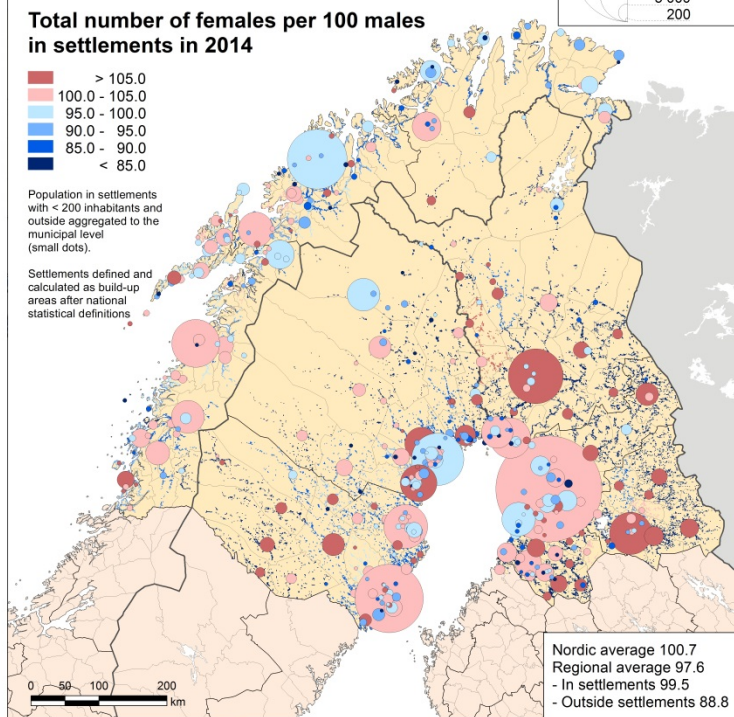


Total Population Change 2010-2015

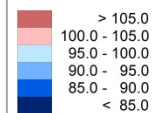
Population Change by main components



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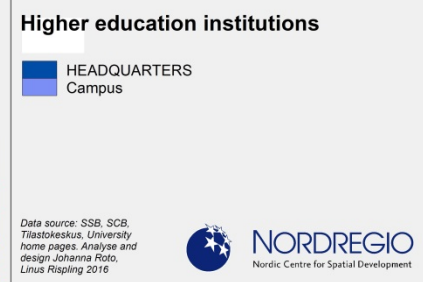
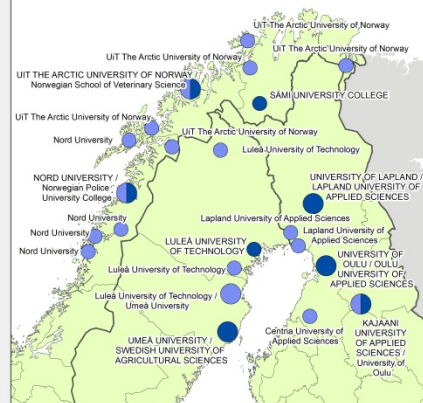
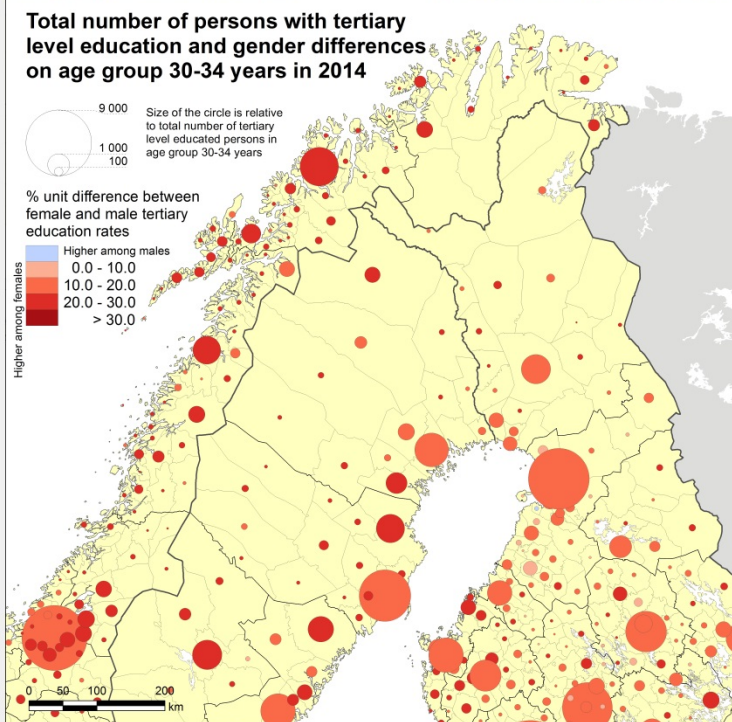
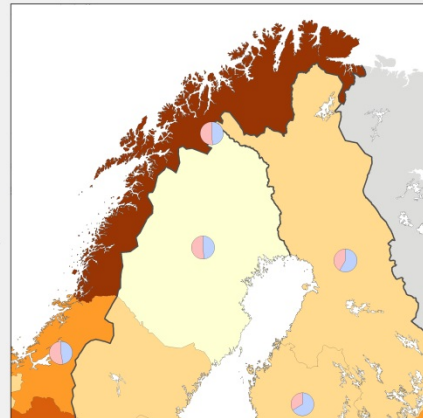
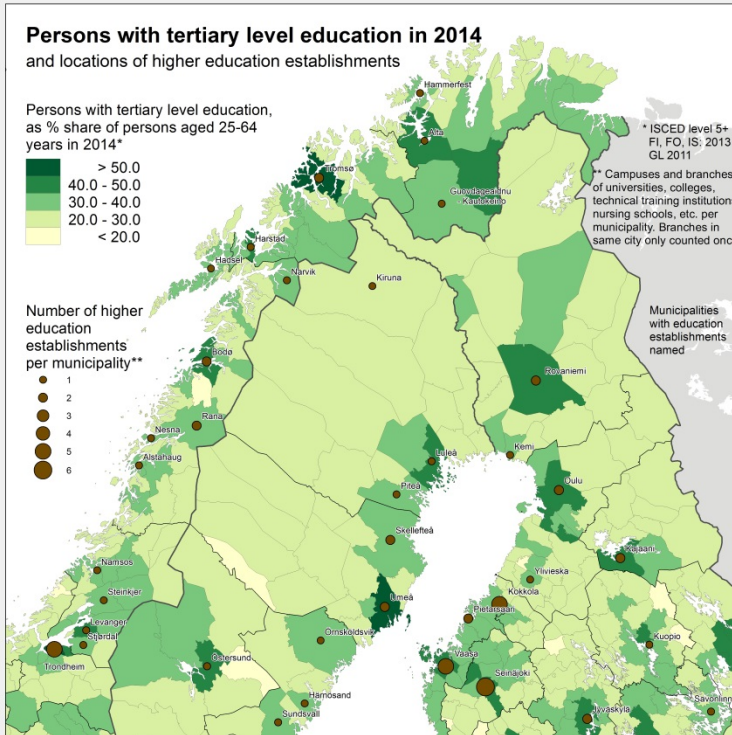


Total number of females per 100 males in municipalities in 2015

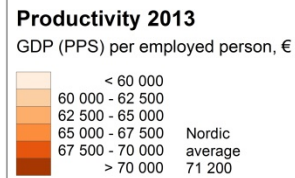
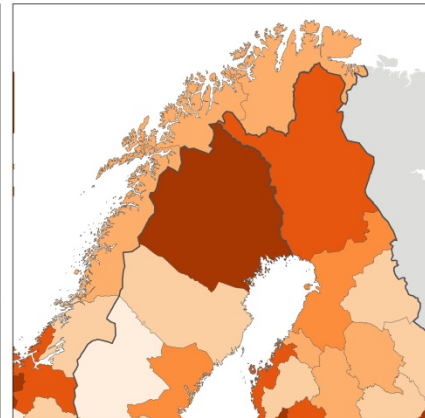
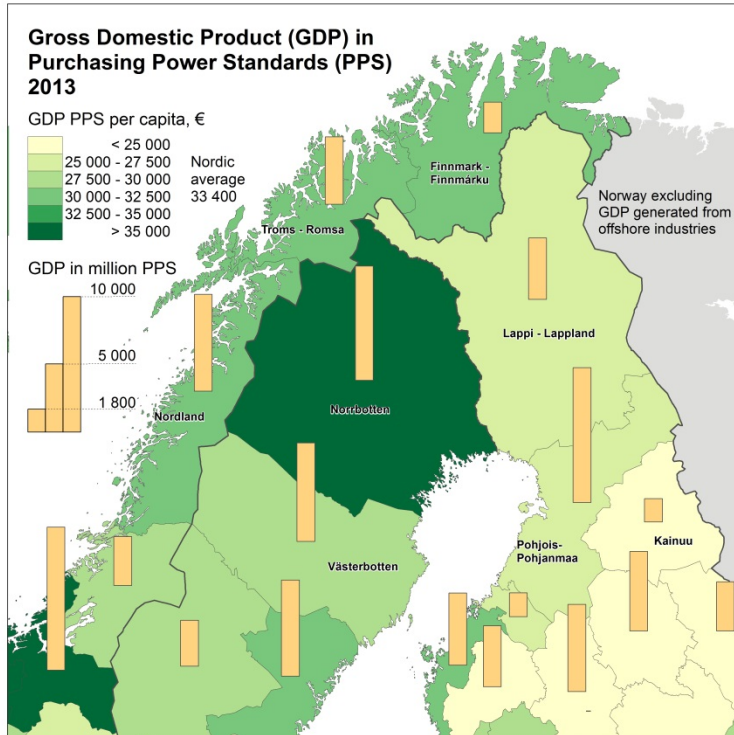


Data source: SSB, SCB, Tilastokeskus, Analyse and design Johanna Roto, 2015

Education

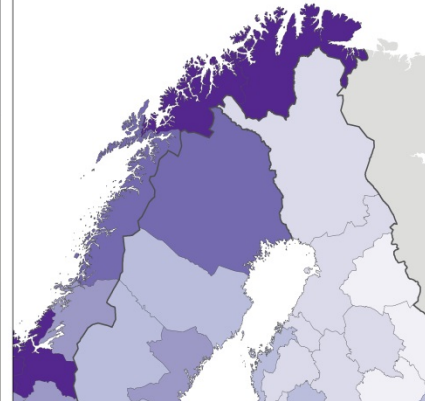
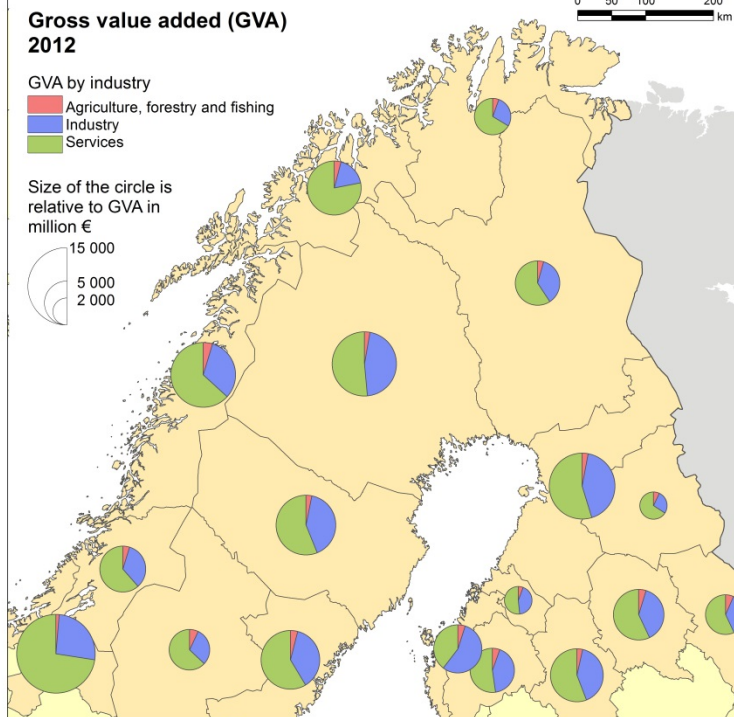


Regional economy



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Norway excluding GDP generated from offshore industries

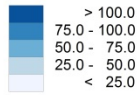


Data source: SSB, SCB, Tilastokeskus. Analyse and design Johanna Roto, 2015

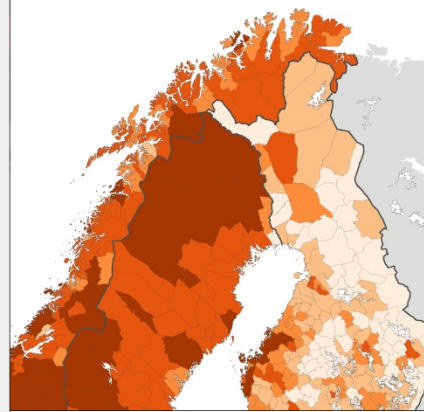
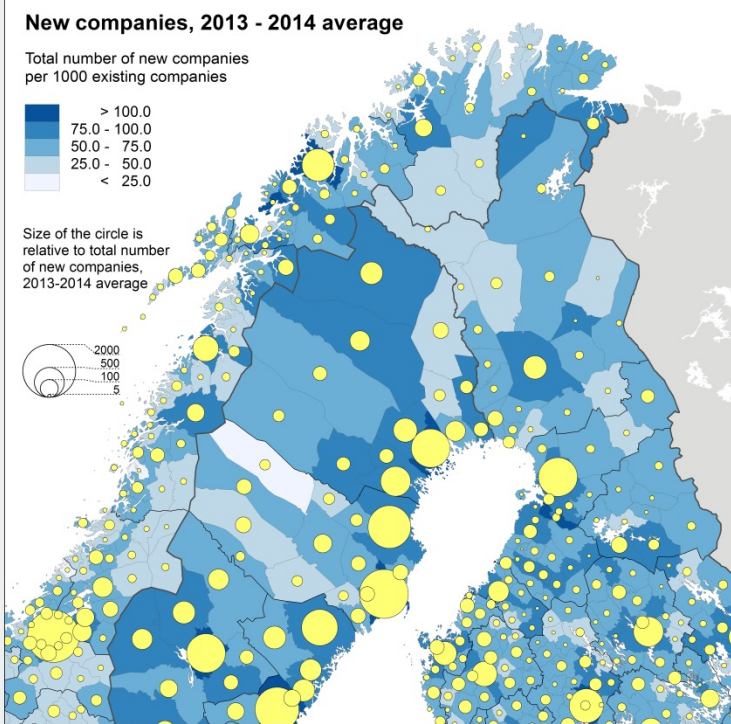
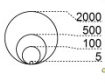
Labour market and companies

New companies, 2013 - 2014 average

Total number of new companies per 1000 existing companies

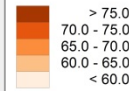


Size of the circle is relative to total number of new companies, 2013-2014 average



Employment rate in 2014

Employed persons as % share of population aged 15-64 years. LFS adjusted series.



Nordic average 73.4
Regional average 71.9

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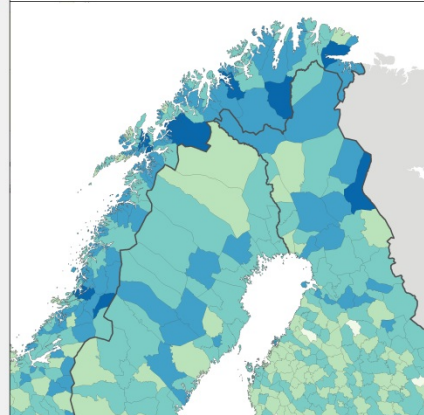
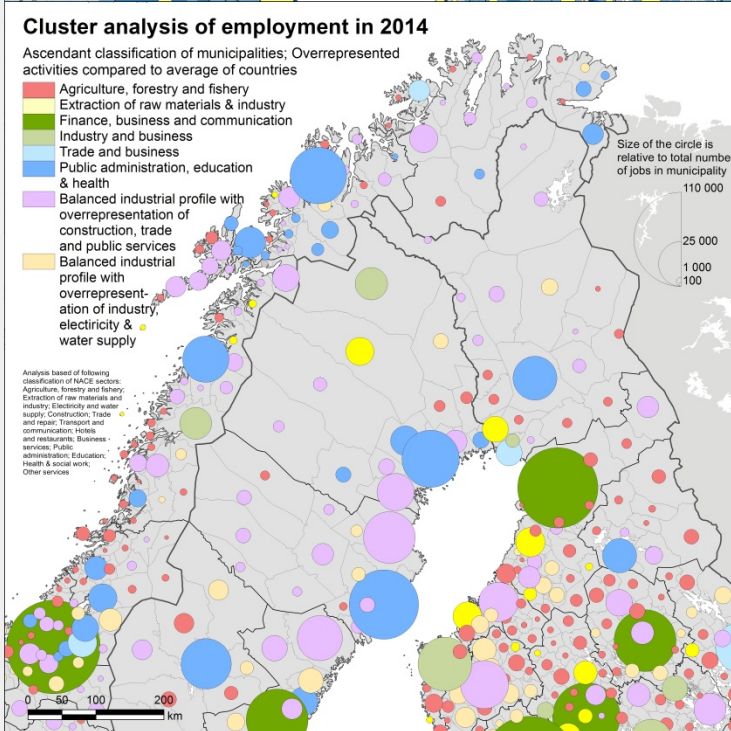
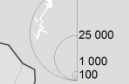
Cluster analysis of employment in 2014

Ascendant classification of municipalities; Overrepresented activities compared to average of countries

- Agriculture, forestry and fishery
- Extraction of raw materials & industry
- Finance, business and communication
- Industry and business
- Trade and business
- Public administration, education & health
- Balanced industrial profile with overrepresentation of construction, trade and public services
- Balanced industrial profile with overrepresentation of industry, electricity & water supply

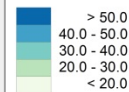
Analysis based on following classification of NACE sectors:
Agriculture, forestry and fishery
Extraction of raw materials and industry
Electricity and water supply
Construction, Trade and communication
Hotels and restaurants, Business services, Public administration, Education, Health & social work
Other services

Size of the circle is relative to total number of jobs in municipality



Employment in Public Sector 2013

Employed persons in public sector as % share of all employed persons



Nordic average 29.2 %
Regional average 35.7 %

Excluding employment in public owned companies

Data source: SSB, SCB, Tilastokeskus, Analyse and design Johanna Roto, 2016

Natural Resources & Tourism

Land Use and Natural Resources

Land Cover

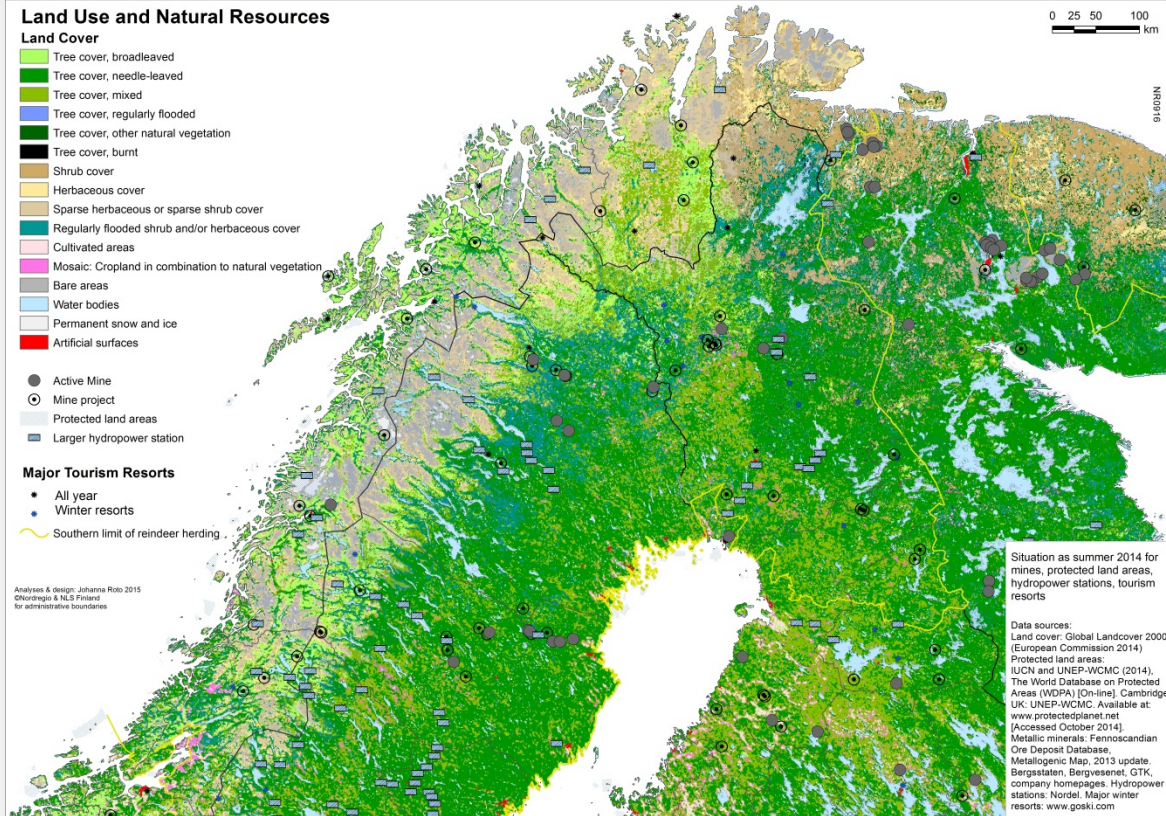
- Tree cover, broadleaved
- Tree cover, needle-leaved
- Tree cover, mixed
- Tree cover, regularly flooded
- Tree cover, other natural vegetation
- Tree cover, burnt
- Shrub cover
- Herbaceous cover
- Sparse herbaceous or sparse shrub cover
- Regularly flooded shrub and/or herbaceous cover
- Cultivated areas
- Mosaic: Cropland in combination to natural vegetation
- Bare areas
- Water bodies
- Permanent snow and ice
- Artificial surfaces

- Active Mine
- Mine project
- Protected land areas
- Larger hydropower station

Major Tourism Resorts

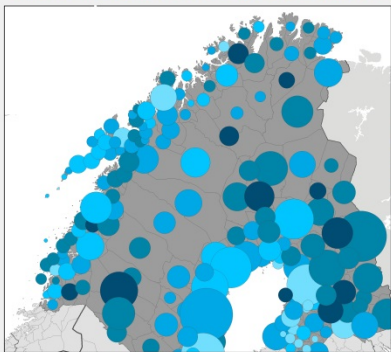
- All year
- Winter resorts
- Southern limit of reindeer herding

Analyses & design: Johanna Roto 2015
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for administrative boundaries



Situation as summer 2014 for mines, protected land areas, hydropower stations, tourism resorts

Data sources:
Land cover: Global Landcover 2000 (European Commission 2014)
Protected land areas: IUCN and UNEP-WCMC (2014), The World Database on Protected Areas (WDPA) [On-line], Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net [Accessed October 2014]
Metallic minerals: Fennoscandian Ore Deposit Database, Metallogenic Map, 2013 update, Bergstaten, Bergvesenet, GTK, company homepages. Hydropower stations: Nordel. Major winter resorts: www.goski.com



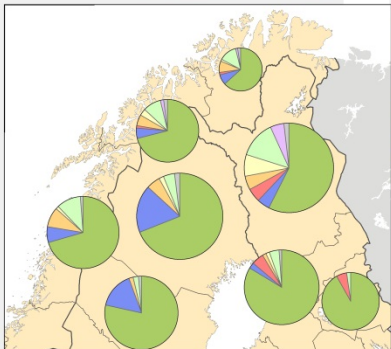
Secondary Homes 2015

- Number of secondary homes per 1000 inh.
- < 1 or none
 - 1 - 50
 - 50 - 100
 - 100 - 250
 - 250 - 500
 - > 500

Size of the circle is relative to total number of secondary homes per municipality in 2015

7 200
1 000
100

Data source: NSB



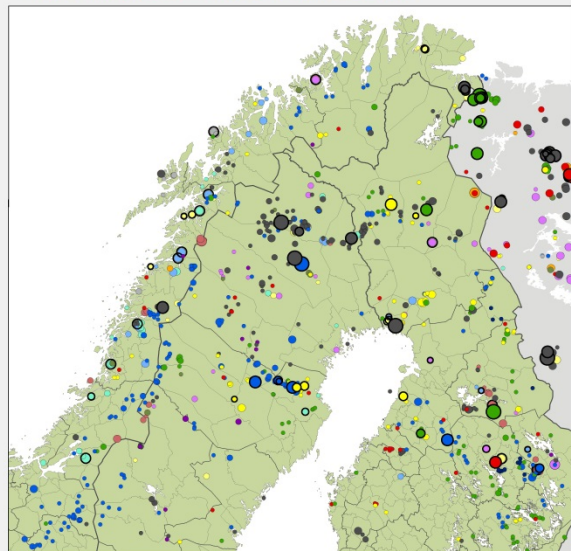
Overnight stays in 2014

In all types of accommodation by nationality

- Nationals of the country
- Other Nordic countries
- Russia
- Germany
- UK
- Other European countries
- Asian countries
- All other countries

Size of the circle is relative to total number of overnight stays per region

2 400 000
1 000 000
500 000



Metal Ore - & Industrial Mineral Mines and Deposits

Metals

- Base: Co, Cu, Pb, Zn
- Base: Ni
- Ferrous: Cr, Fe, Mn, Ti, V
- Precious: Ag, Au, PGEs (Pd, Pt, Rh)
- Special: Be, Ca, Ge, In, Li, Mo, Nb, Re, REEs, Sb, Sc, Ta, W, Zr
- Energy: U, Th

Minerals

- Apatite
- Calcite
- Diamond
- Dolomite
- Graphite
- Olivine
- Quartz
- Talc
- Other

Size of the deposit

- Active mine
- Small
- Medium
- Large
- Very large

Situation as 2014
Data sources: Fennoscandian Ore Deposit Database, Metallogenic Map, 2013 update, Bergstaten, Bergvesenet, GTK

List of workshop participants

Sweden	Anttila Lena	Länsstyrelsen Norrbottens län / Interreg Nord
	Forsberg Robert	Arctic Airlink AB
	Höglund Erik	Luleå Tekniska universitet
	Lidman Kent	Nordkalottrådets nyhetsbrev
	Lind Andreas	Länsstyrelsen Norrbottens län
	Lindfors Anita	Kommunförbundet Norrbotten
	Mäntyranta Iiris	Länsstyrelsen Norrbottens län
	Mörtlund Sofia	Interreg Sápmi styrkommitté
	Sjaunja Kenneth	Norrbottens läns landsting
	Waara Peter	Haparanda kommun
	Wallin Susanne	Norrbottens handelskammare
Österberg Sven-Erik	Länsstyrelsen Norrbottens län	
Finland	Holopainen Päivi	Lapplands förbund
	Holster Raimo	Lapplands förbund
	Koivurova Timo	Lapplands universitet, Arktiska centret
	Ojala Arto	Lapplands förbund / Kemijärvi stad
	Rautajoki Timo	Lapplands handelskammare
	Saarela Pirkko	Lapplands ELY-center
Norway	Dvorak Zdenek	Nordland fylkeskommune
	Jawahir Ian	Troms fylkeskommune
	Johansen Greta	Nordland fylkeskommune
	Noresjö Ingelin	Nordland fylkeskommune
	Leinonen Riitta	Nordkalottens grensetjeneste Storfjord
	Rösten Mari	Finnmark fylkeskommune
Nordic Working Group		
	Hansen Klaus Georg	Government of Greenland
	Mikkola Paula	Nordkalottrådet
	Nylund Lisbeth	Kommunal- og moderniseringsdept.
	Saarela Sari	Länsstyrelsen Norrbottens län