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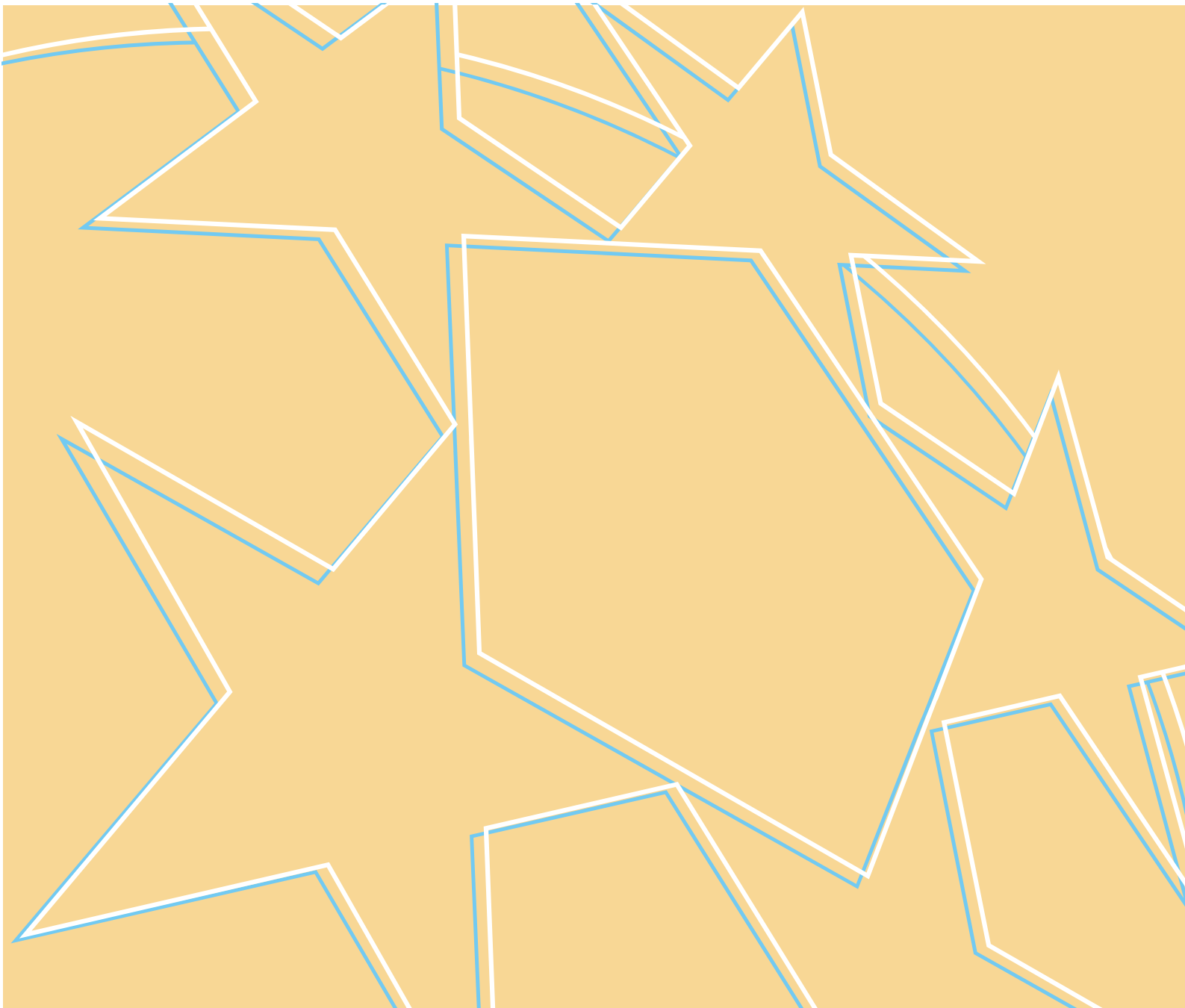
Development perspectives for the NSPA: Opportunities and Challenges

Erik Gløersen, Alexandre Dubois, Johanna Roto, Rasmus Ole Rasmussen, Jose Sterling

NORDREGIO WORKING PAPER 2009:5



Development perspectives for the NSPA: Opportunities and challenges

Analytical report

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Opportunities and challenges

Erik Gløersen, Alexandre Dubois,
Johanna Roto, Rasmus Ole Rasmussen
Jose Sterling

NORDREGIO 2009

Nordregio Working Paper 2009:5

Nordregio
P.O. Box 1658
SE-111 86 Stockholm, Sweden
nordregio@nordregio.se
www.nordregio.se
www.norden.se

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The Nordic Council
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Stockholm, Sweden
2009

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Preface

This analytical report is one of three deliveries produced as part of the foresight and visioning exercise for the Northern Sparsely Populated Areas (NSPA). The two other outputs are a Vision report entitled "Strong, Specific and Promising: Towards a Vision for the NSPA in 2020" (Nordregio WP 2009:4) and a policy road map for their future development and positioning in the European and global perspectives.

This report has mainly functioned as an input to the discussions in the Foresight workshops that were organised in Stockholm September, 11th and 12th and October 16th and 17th, 2008. The objective was to allow each participant to relate her or his own region to the NSPA as a whole, answering questions such as: what is different? What is similar? How does the NSPA make sense as a spatial context to understand ongoing processes and to design development strategies?

This is however a revised version of the report initially distributed to the workshop participants, taking into account comments made on the maps and correcting and complementing some initially results.

During the Finnish, Norwegian and Swedish negotiations for EU-membership, the unique characteristics of the Northern Sparsely Populated Areas (NSPA) were highlighted. The national governments of each government emphasized that remoteness, extremely low population densities and constraining climatic conditions create special challenges for economic and social development, and these need to be taken into account through adequate policies. These points were argued for successfully. In terms of structural funds support, the concerned regions in Finland and Sweden have benefited from support, first through a specifically designed 'Objective 6' area in the period 1994-1999, then through an inclusion in the 'Objective 1' area between 2000 and 2006 and currently through a specific additional funding of € 35 per inhabitant per year between 2007 and 2013. Additionally, the specific constraints linked to low population density have been recognised in the EU competition policy, through an extended tolerance for state and regional aid in concerned areas. The EU has therefore acknowledged the specificity of the NSPA.

The line of argument based on the uniqueness of the NSPA has however shown its limits. Insofar as the NSPA has had satisfactory overall levels of economic performances over the last decade, especially in comparison to new member states, the need for specific policies has been increasingly questioned at the European level. This may however be because there is not yet a real understanding of the issues at stake in the NSPA. The inclusion of the Swedish and Finnish in the 'Objective 1' area, targeting "*structural adjustment of regions whose development is lagging behind*", suggested a need for structural reform. The geographic handicaps of these areas are however by nature permanent. One can therefore hypothesise that, rather than "structural adjustment", the NSPA need a perennial policy allowing their small and open economies to adapt to economic cycles and market fluctuations in a sustainable way. The exact nature of the regulatory measures and punctual interventions that are needed for this purpose remain to be defined and agreed upon at the European level.

In parallel, discussions around the social and economic impact of so-called "geographic handicaps" have gained momentum at the European level. A series of reports and policy documents have highlighted the specificities of insular, mountainous, sparsely populated and ultraperipheral areas. Two successive reports produced for the European commission have focused on the specific conditions of insular[1] and mountainous areas[2]. Subsequently, the Nordregio report entitled *Northern peripheral sparsely populated areas in the EU and in Norway*[3] provided evidence on the geographic and natural handicaps of the NSPA, as well as on the demographic challenges facing these areas. Rather than focusing on their presumed "uniqueness", the NSPA therefore now increasingly have the possibility to position themselves in wider European discussions on permanent handicaps.

The geographic specificities of the NSPA having been identified and acknowledged, the challenge is to provide further evidence that an appropriate policy will enable the concerned regions to contribute to the improvement of European growth and competitiveness. The ambition of the Foresight process is in this respect twofold: on the one hand, highlighting potentials for growth and development that remain to be fully exploited or that may arise in the coming years. On the other hand, identifying factors that may be prevent these development possibilities from being realised, unless specific policy measures are implemented. The objective is in other words to pinpoint intervention areas that would have the maximum value added in terms of favouring growth and development.

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[1] Planistat Europe & Bradley Dunbar Ass. (2003) *Analysis of the island regions and outermost regions of the European Union*
http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/ilesrup/islands_part1_summary_en.pdf

[2] Nordregio *et al* (2004) *Mountain areas in Europe: Analysis of mountain areas in EU Member States, acceding and other European countries*, Nordregio Report 2004:1
http://europa.eu.int/comm/regional_policy/sources/docgener/studies/study_en.htm

[3] Northern Peripheral, Sparsely Populated Regions in the European Union and in Norway. Erik Gløersen et al. 173 pp., Nordregio Report 2006:2
http://www.nordregio.se/Files/r0602.pdf

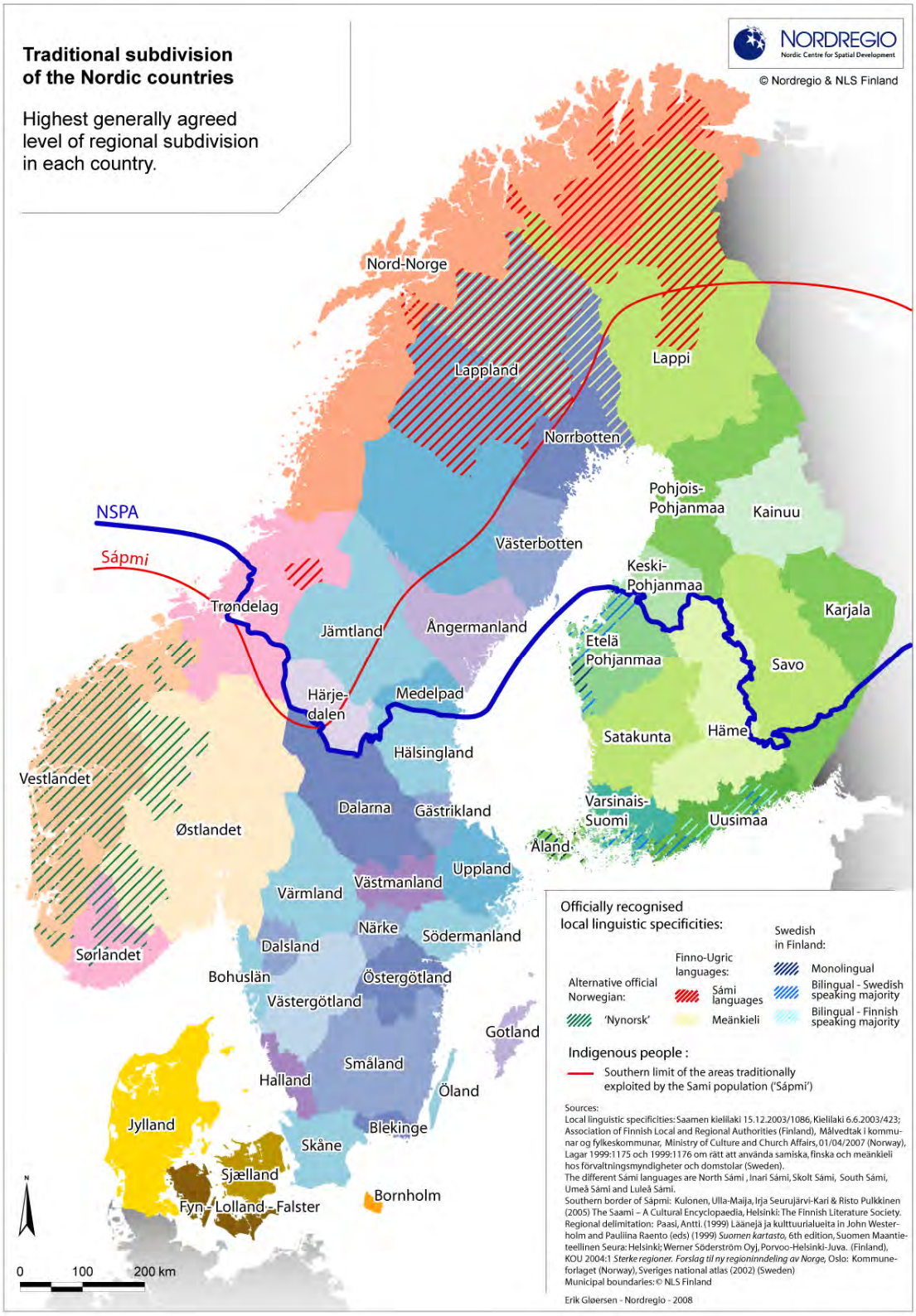

Figure 1 : A cultural picture of the NSPA: spatial contexts for action?

These traditional and cultural spaces, which only partly correspond to current administrative regions, correspond to the geographical context with which many local stakeholders identify and within which development actions are designed. This map also highlights the Sami areas, both through the extensive Sapmí *area where indigenous peoples' rights can be an issue and the municipalities where the Sami population currently concentrates.*

Human resources in the NSPA

Difficulties in recruiting persons with appropriate profiles and competencies have been highlighted as a main challenge over the past years, in the Norwegian[4] and Swedish[5] NSPA. Relatively higher unemployment figures in Finland probably explain why this issue less emphasized in the Finnish NSPA, even if a lack of available labour is identified in a range of areas for specific sectors (e.g. forestry in East Finland, health and services in large parts of North and East Finland[6]).

Immediate questions to be addressed are:

- What types of profiles and competencies are lacking?
- Why do these areas not manage to attract labour to fill existing job opportunities?
- Is the underlying factor demographic imbalances (lack of people in the right age groups) or inadequate education and training?
- Where is this problem most acute?
- What can be done to solve it?

Population decline: a response to changing economic conditions or a threat to the NSPA?

The long lasting and structural population decline in large parts of the NSPA reflects the population's response to a changing economic context. This response is not uniform, but varies according to gender, age groups and cohorts, and is the result of a wide range of diverse processes. Understanding the driving forces behind these changes is needed, if the NSPA regions are to be pro-active in developing socially and economically sustainable development strategies.

The objective is therefore to become responsive and pro-active, rather than considering the changes as a threat on the long term, even if they may lead to major immediate challenges for the concerned local communities. This implies identifying when and why local depopulating trends become incompatible with the ambition to achieve balanced and harmonious territorial development. Possible elements of reply may be:

- a political ambition to ensure that economic activities in the NSPA should be developed on the basis of healthy and complete local communities (e.g. in terms of gender balance, age groups, range of activities and service provision);

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[4] "*En hovedkonklusjon er at det vil bli knapphet på arbeidskraft i denne perioden, og regionene må gjøre seg attraktive for å tiltrekke seg den arbeidskraften de ønsker.*"
NORUT Tromsø (2008) *Konjunkturbarometer for Nord-Norge*, Sparebank-1
http://www.kbnn.no/

[5] "*Industriinvesteringarna i Norrland beräknas i år komma att öka med hela 26 procent, till en ny rekordnivå. Svårare är det att lösa problemen med arbetskraftsbristen, som nu blir alltmer akut när företagen i år expanderat kraftigt på personalsidan.*"
SCB (2007) *Konjunkturbarometer Norrland*
http://www.scb.se/Grupp/ekonomi/_Dokument/Norrlandsbarometer07.pdf

[6] Työ- ja elinkeinoministeriö (2008) *Rekrytointiongelmat sekä työvoiman kysyntä ja tarjonta työvoimatoimistoissa*, Tilanne toukokuussa 2008-07-24
http://www.tem.fi/files/19881/TEM-raportti_rekrytointiongelmat_2507.pdf

- a long term economic perspective focusing on the need for maintained access to natural resources that may become of strategic national or European interest in a changing energy or raw material situation;
- a geopolitical analysis highlighting the strategic interest of human presence in specific regions;
- an ecological perspective, considering that the preservation of valuable landscapes requires is threatened by continued depopulation;
- a cultural point of view, whereby the loss of certain settlements or types of habitat would lead to the loss of important traditions.

These different lines of argument need to confronted to new types of life cycles. Preferences and needs change as people become more mobile. As moving from one geographic location to another becomes a natural part of each individual life cycle, settling is less and less a "once and for all" situation. This requires municipalities and regions to become more aware of new demographic processes and more responsive to their intrinsic challenges and potentials. For instance, the development of secondary housing and the higher frequency of situations where people change their place of residence on a weekly or monthly basis need to be taken better into account. The propensity of these new migrants to settle more or less permanently in their "secondary" place of abode at the age of retirement can for example offer interesting perspectives for some NSPA localities.

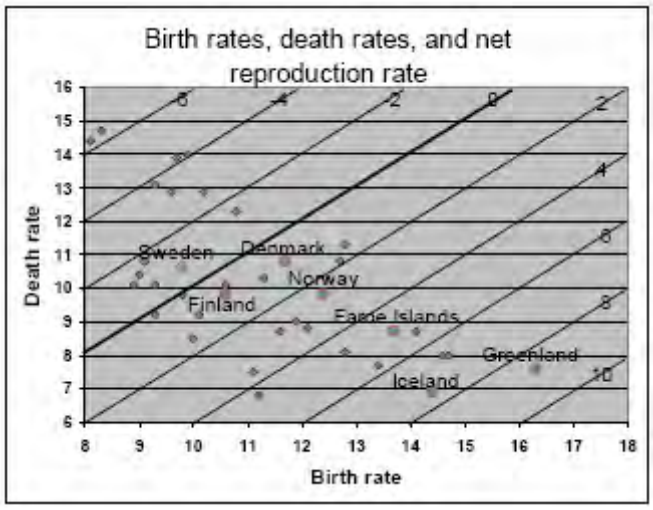
One also needs to consider NSPA demographic trends in relation to national specificities with regards to population change. As illustrated by Figure 2, there are significant differences between Sweden, Finland and Norway:

- Sweden is in a situation characterized by a negative reproduction rate of -1,0 due to a birth rate of 9,8 and a death rate of 10,8 per 1000 inhabitants (comparable to e.g. Japan),
- Finland with a very small positive reproduction rate of 0,7 with a birth rate of 10,6 and death rate of 9,9 (comparable to e.g. Belgium),
- Norway shows the highest net reproduction rate of 2,5 due to a birth rate of 12,4 and death rate of 9,9 (comparable to e.g. France)..

These national differences create different demographic preconditions in the NSPA, both in terms of "natural" reproduction of the labour market and long term overall trends. It is notable that other northern periphal areas such as the Faroe Islands, Iceland and Greenland belong to yet another category, with considerably higher birth rates and lower death rates. A large variety of demographic trends therefore prevail in the northern peripheries of Europe.

Figure 2: Birth rates, death rates and net reproduction rate: A variety of situations in the NSPA

The figure illustrates the situation of Northern European countries in relation to birth rates and death rates. On top of these two dimensions the net reproduction rate has been super-imposed, with negative reproduction rates in the upper-left corner, and positive reproduction rates in the lower right hand corner. (Source: Nordregio WP 2008:1).



Increased polarisation between small and large labour market areas

As previously noted in the report *Northern Peripheral Sparsely Populated Regions in the European Union and In Norway*[7], the NSPA is unique in a European context with regards to its low population densities. These low values correspond to a regional development challenge because they imply local labour markets of small size, where it is difficult to develop a diversified and robust economy and with little scope for economies of scale and economies of agglomeration[8]. As a result of this, public and private service provision is more costly.

Measures of population potential were introduced as an alternative to regional or municipal demographic densities. We defined the population potential as the number of people living within commuting distance from each point. In other words, the population potential directly expresses the extent of the economic development challenge related to sparse settlement patterns.

This does not mean that commuting within the population potential area is possible or desirable. There may be numerous obstacles to increased daily mobility, such has high costs, negative environmental effects or high energy consumption. Additionally, there can be cultural, social or linguistic obstacles to mobility between neighbouring commuting. Finally, the demand for labour may not be sufficient to justify increased commuting. Measures of population potential are therefore neither describing a reality not a desirable future. They are just a starting point for thinking about the effects demographic sparsity may have on regional development perspectives.

The map of population potentials shows that settlement patterns are not uniform across the NSPA area (Figure 3): Finnish and Swedish coastal areas are less sparse, as most of East Finland. Development preconditions are furthermore quite different in and around all regional capital cities compared to the rest of the NSPA. Such basic observations of regional structures need to be highlighted in the European context, where the whole NSPA is frequently described as homogenously sparse on the basis of regional average value using so-called "NUTS 2" regions[9].

Acknowledging the existence of internal contrasts of the NSPA is indeed important to understand current demographic trends. While the overall regional trends, usually referred to at the European level, show demographic decline, more detailed figures at the level of municipalities and labour markets reveal more nuanced patterns. The persistence of these

[7] http://www.nordregio.se/Files/book0601.pdf

[8] Economies of agglomeration refer to the benefits resulting from the clustering of activities. They are generally subdivided into three categories. First, urbanization economies associated with the agglomeration of population and the resulting infrastructure facilities and labour pool. Second, industrialisation economies resulting from the clustering of industrial activities giving rise to an "industrial climate". Third, localization economies resulting from the agglomeration of specific activities which favour specialized facilities and labour pools etc.

[9] 'NUTS 2' is a French acronym describing the regional level at which European statistics are most frequently compiled and analysed. In NSPA countries, they correspond to groupings of maakunta, fylke or län. The NSPA, is subdivided in six NUTS 2 areas: **Pohjois-Suomi** (Keski-Pohjanmaa, Pohjois-Pohjanmaa and Lappi) and **Itä-Suomi** (Etelä-Savo, Pohjois-Savo, Pohjois-Karjala, Kainuu) in Finland, **Trøndelag** (Sør-Trøndelag (outside the NSPA) and Nord-Trøndelag) and **Nord-Norge** (Nordland, Troms and Finnmark) and **Mellersta Norrland** (Västernorrland and Jämtland) and **Övre Norrland** (Västerbotten and Norrbotten) in Sweden.

changes over time provides evidence on whether they correspond to structural trends or fluctuations of a more temporary nature.

Comparing the situation in the three Nordic areas shows somewhat different situations with regards to the number, profile and geographical spread of the 'NSPA demographic growth nodes'. Considering trends over three consecutive five year periods from 1992 to 2007, one can identify the labour market areas that have experienced significant population growth. As shown in Table 1, six such areas can be identified both in Finland and in Norway[10], and only three in Sweden. Oulu stands out as the most dynamic large city of the NSPA, as the population growth in Umeå is significantly lower. The smaller Nordic regional capital cities can show to demographic growth rates that are intermediate between these levels. The other Swedish regional capitals of Luleå, Sundsvall, Östersund and Örnsköldsvik experience a weak growth or a population decline.

Among the growth areas identified in Finland and Norway, there are admittedly some very small labour markets, such as Sievi, Karasjok and Nesna. The growth of Karasjok is partly linked to its progressive assertion as a political centre for the Sami population since the establishment of the Norwegian Sami parliament in 1989; the growth of Nesna is not significant and declining over the period. Sievi therefore stands out as the only small labour market area with a significant demographic growth that can be related to development based on a local industry, viz. a production plant of safety and occupational footwear employing slightly under than 300 persons.

Some areas have experienced negative population trends until 2002, but have more recently stabilised or increased their population (Table 2). These areas may therefore correspond to new nodes towards which the regional population would concentrate in the coming years. The two most striking Finnish examples Kalajoki (Hiekkasärkät) and Kittilä (Levi) are both growing as tourist destinations. Hammerfest in Norway has had an exceptional industrial development in recent years.

Inversely, a significant number of large labour market areas, with a population of more than 20 000 inhabitants, experience population decline (Table 3). This mainly concerns the inland areas of Sweden (Kiruna, Östersund, Solefteå) and Finland (Pieksämäki, Iisalmi and Varkaus). In addition, some labour market areas situated in the shadow of larger cities, have experienced decline: this is the case of Raahe and Kemi in Finland, bordering Oulu labour market, and Härnösand, which is positioned between Sundsvall and Örnsköldsvik.

One more generally notes that labour markets with a population of less than 40,000 inhabitants have declining population figures in all three countries. The main exception in this regard is Alta in Norwegian Finnmark.

Overall, the analysis of demographic trends at the level of labour market areas therefore show that there are presently about 10 or 12 centres concentrating a lasting and significant population growth in the NSPA. From a regional perspective, this concentration of population implies major challenges, both in terms of adapting to these increasing population figures and in managing the continued "demographic dilution" in the remaining areas.

A table with demographic trends in all NSPA labour markets can be found in the annex.

[10] Including the labour market areas of Tronheim and Kokkola, whose centres are outside the NSPA but which extend into Nord-Trøndelag and Keski-Pohjanmaa, respectively.

Table 1: Labour market areas with a positive population change between 1992 and 2007
(Labour markets only partly belong to the NSPA are in italics)

Name	Population (2007)	Population growth			
		1992-1997	1997-2002	2002-2007	1992-2007
Oulu (FI)	227 585	7,71	9,41	8,28	**27,59**
Tromsø (NO)	67 690	6,87	6,05	6,36	**20,54**
Trondheim (NO)	*244 302*	*3,28*	*4,61*	*7,23*	*15,85*
Alta (NO)	18 272	4,41	4,97	5,26	**15,37**
Bodø (NO)	48 095	5,38	3,49	5,78	**15,36**
Sievi (FI)	5 257	4,85	4,33	1,41	**10,93**
Umeå (SE)	142 610	5,56	1,39	3,11	**10,36**
Rovaniemi (FI)	58 825	3,88	-1,30	3,39	**6,02**
Kuopio (FI)	124 198	2,86	1,17	1,79	**5,92**
Joensuu (FI)	102 302	1,90	0,82	2,36	**5,17**
Levanger/Verdal (NO)	34 915	0,86	0,82	3,08	**4,83**
Kárášjohka-Karasjok (NO)	2 866	3,63	-0,46	0,77	**3,95**
Kokkola (FI)	*51 055*	*0,85*	*-0,57*	*2,41*	*2,69*
Åre (SE)	10 127	-0,06	-2,40	4,49	**1,92**
Luleå (SE)	141 945	0,91	-0,37	0,71	**1,26**
Brønnøy (NO)	11 371	1,16	0,94	-1,53	**0,55**
Namsos (NO)	16 801	-0,56	0,44	0,32	**0,20**
Ylivieska (FI)	16 467	-0,09	-1,85	2,17	**0,19**
Nesna (NO)	1 792	5,92	-3,11	-2,50	**0,06**

Table 2: Other labour market areas with a positive population change between 2002 and 2007

Name	Population (2007)	Population growth			
		1992-1997	1997-2002	2002-2007	1992-2007
Kalajoki (FI)	9 421	-1,82	-2,80	**4,19**	-0,56
Hammerfest (NO)	10 508	-3,56	-1,84	**3,29**	-2,22
Kittilä (FI)	5 967	-4,52	-3,45	**2,93**	-5,10
Sundsvall (SE)	112 459	-0,34	-1,48	**1,28**	-0,55
Lyngen (NO)	3 208	-4,65	-4,97	**1,01**	-8,47
Tornio (FI)	22 373	-0,27	-4,16	**0,98**	-3,47
Steinkjer (NO)	34 213	-2,14	-0,58	**0,71**	-2,02
Nivala (FI)	10 976	-0,58	-3,44	**0,52**	-3,50
Örnsköldsvik (SE)	55 284	-3,42	-3,62	**0,43**	-6,52
Skellefteå (SE)	76 470	-2,43	-3,45	**0,15**	-5,65

Table 3: Labour market areas of more than 20 000 people with a negative population change between 1992 and 2007

Name	Population (2007)	Population growth			
		1992-1997	1997-2002	2002-2007	1992-2007
Sollefteå (SE)	20 679	-5,18	-8,16	-3,30	**-15,79**
Pieksämäki (FI)	20 476	-4,51	-6,04	-4,72	**-14,52**
Kiruna (SE)	23 122	-3,62	-6,78	-1,84	**-11,81**
Varkaus (FI)	39 785	-2,98	-4,17	-3,77	**-10,53**
Kemi (FI)	34 969	-2,56	-5,01	-2,57	**-9,83**
Iisalmi (FI)	38 696	-2,07	-5,03	-2,79	**-9,59**
Härnösand (SE)	24 922	-2,69	-5,96	-1,08	**-9,48**
Raahe (FI)	34 901	-2,21	-4,83	-2,43	**-9,19**
Östersund (SE)	93 432	-1,24	-3,11	-0,17	**-4,48**

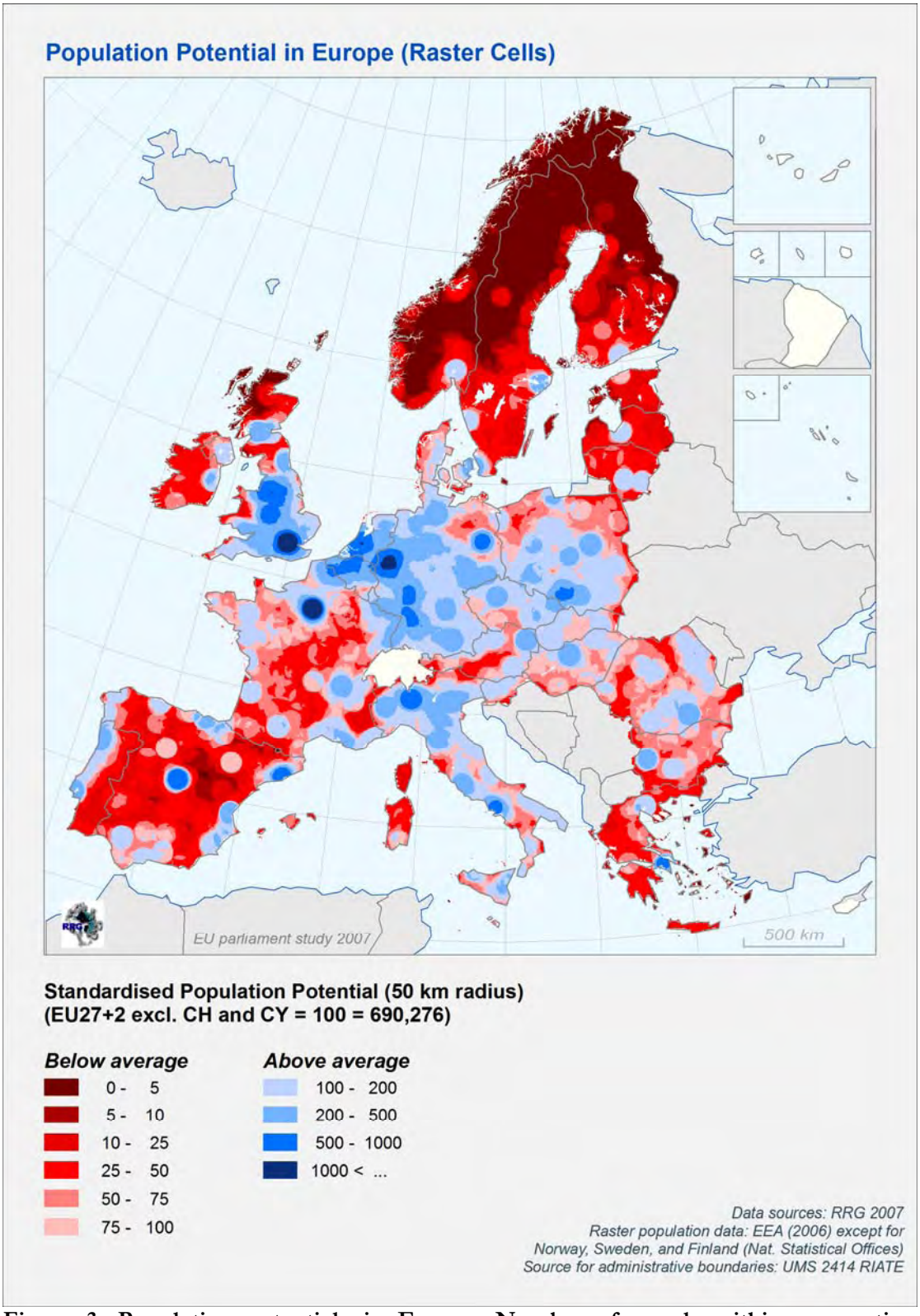


Figure 3: Population potentials in Europe: Number of people within commuting distance from each point

The extensive areas with population potentials of less than 5% of the EU average are a unique feature of NSPA.

Source: Nordregio et al (2007) *Regional disparities and cohesion : What Strategies for the Future?* Report to the EU Parliament.

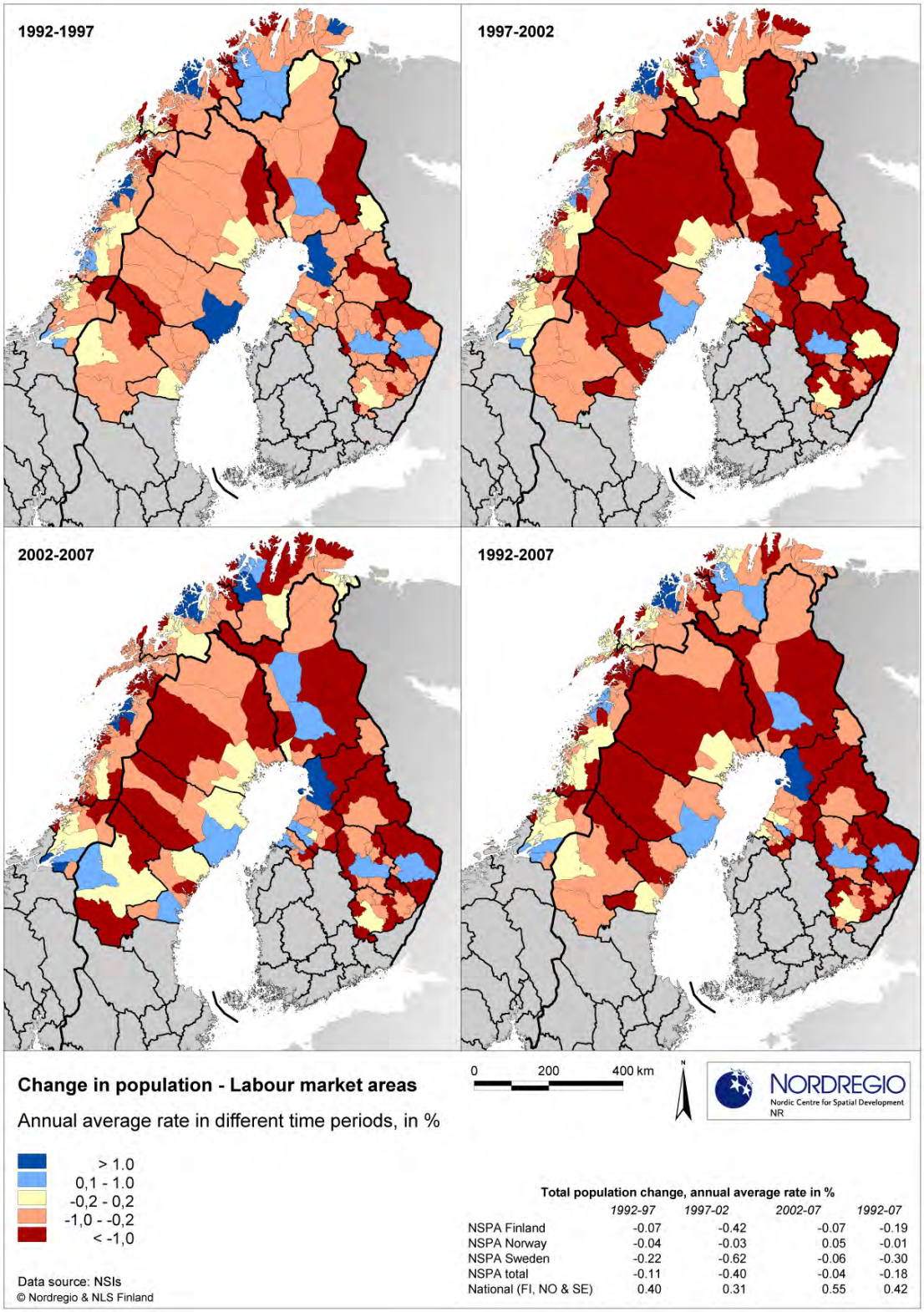


Figure 4: Demographic trends in NSPA labour markets between 1992 and 2007

Labour market areas are the most relevant scale to observe population trends from a regional development point of vie, as they correspond to functional territorial contexts from a social and economic point of view. The majority of NSPA labour market areas have experienced population decline over the past 15 years. A few of the largest towns and cities can however show to intensive population growth, which also leads to specific policy challenges.

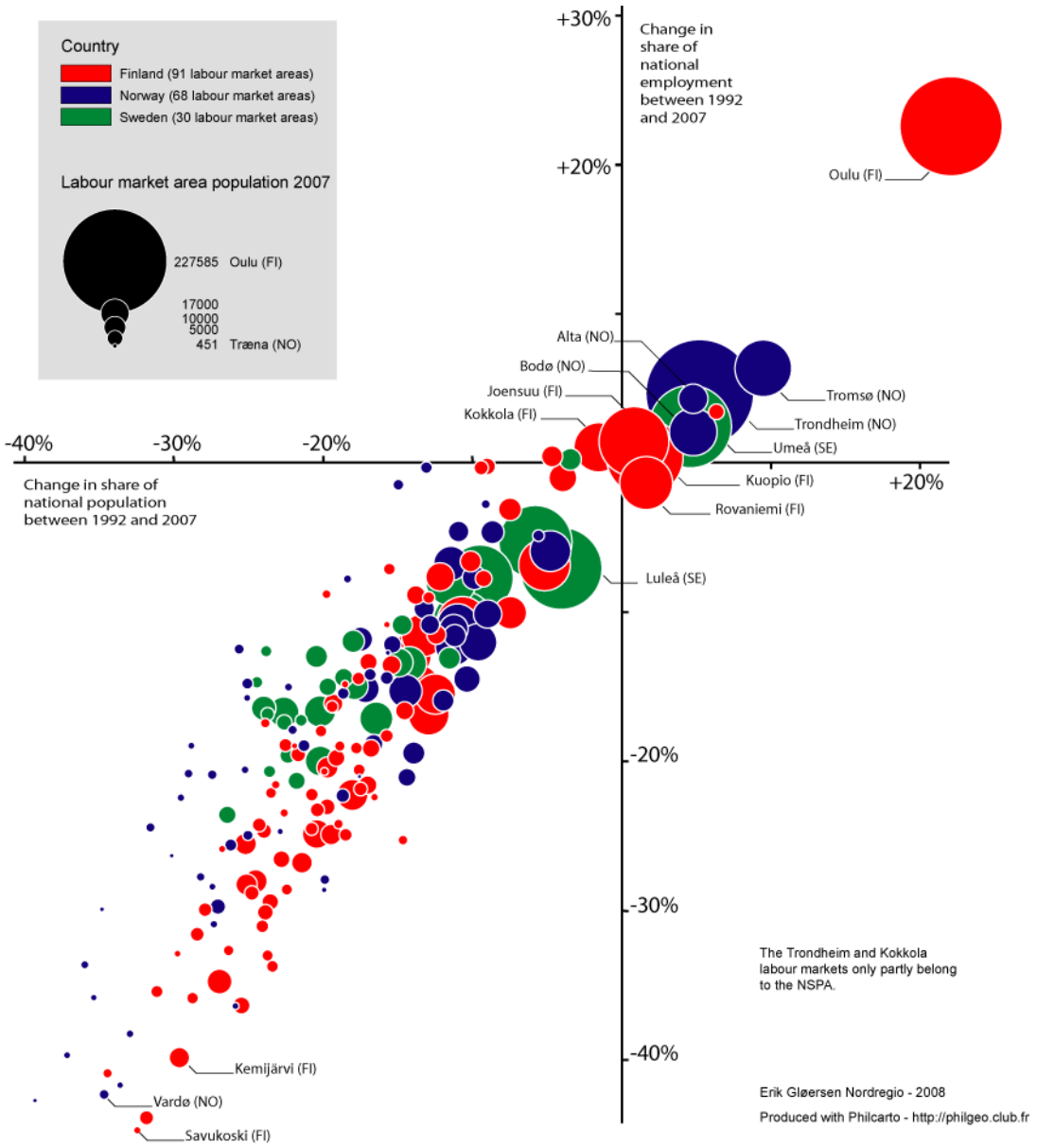


Figure 5: Labour market size and change in employment and in population in the NSPA

The strong correlation between change in employment and in population over the past 15 years is hardly surprising. This scheme mainly illustrates the relationship between these two factors and the size of each labour market area: large labour market areas grow both in terms of jobs and population. In this respect, the Swedish, Norwegian and Finnish situations are not quite equivalent: In Finland, the remarkable growth of Oulu is accompanied by a range of regional capital cities that have just maintained their position, while numerous medium-sized and small labour markets experiencing intense decline. In the Norwegian NSPA there are a range of three "growth nodes" (four including Trondheim) and a strong correlation between labour market size and the intensity of the decline in all other areas. Sweden has on the other hand only experienced demographic and economic growth in Umeå in this fifteen year period, but does not have as many small and isolated labour market areas with spectacular fall in population figures and jobs as in Norway and Finland.

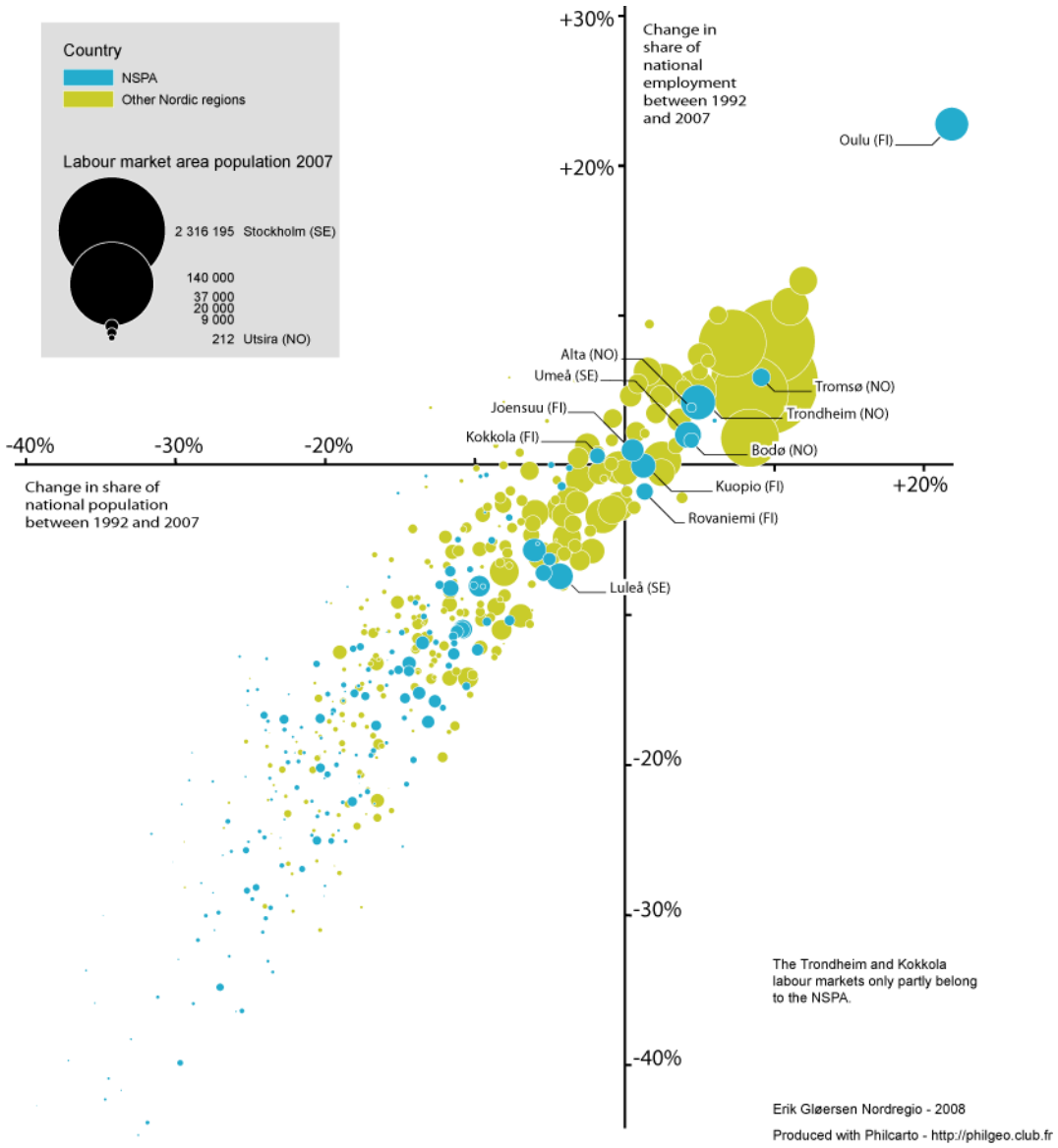


Figure 6: Labour market size and change in employment and in population: the NSPA compared to the rest of Norden

Increased polarisation between core and periphery, and between rural and urban areas, occurs in most parts of Europe. Trends observed in the NSPA however appear as more extreme than in the rest of the Nordic countries, with the largest labour markets growing at almost the same pace as national capital regions, while the number of small labour markets with intense demographic decline is considerably higher. The growth rates of Oulu are not in the same range as other Nordic labour market areas, illustrating an extreme polarisation of the North Finnish space.

Demographic imbalances and ageing: Can the retired population be an economic resource for the NSPA?

Ageing resulting from fertilitity rates below replacement levels and increasing life expectancy has been identified as a European challenge with a strong regional dimension. Indeed, if fertility rates and life expectancies vary significantly between European countries, the largest variations occur between regions, with particularly strong contrasts opposing urban and rural areas. At this geographic level, ageing is a critical policy issue for the supply of infrastructure and services.

If one looks at the NSPA in Norway, Sweden and Finland and compare them to the overall figure for these three countries taken together, distinctly different patterns can be we can observed. In Finland, the underrepresentation of the active population between the ages of 25 and 44 combined with an overrepresentation of people aged 45 to 60 is the most striking feature. This suggests drastic changes on the labour market in the coming years, as numerous persons leaving the labour market through retirement will not be replaced. North and East Finland however have employment rates of older workers that are particularly weak; this should attenuate the tensions on the labour market. Sweden experiences the same type of pattern, even if the deviations from the North-Nordic average are more moderate. However, children are significantly underrepresented in the Swedish NSPA. Norway on the other hand can show to a strong overrepresentation of children in the NSPA, and proportions of elderly people in line with Nordic average values. The demographic perspectives in Finland, Norway and Sweden are therefore quite distinct. As has already been metioned above in relation to the net reproduction rates of the three countries, many of the differences found within the NSPA region are more related to general national characteristics than to NSPA specificities.

A shared trait, on the other hand, is that young adults are overrepresented in all NSPA municipalities offering opportunities for higher education. This illustrates the effects of pro-active policies promoting universities and polytechnics in the NSPA, and also the relatively higher birth figures in some parts (Figure 8). Some however question to what extent such a pattern can be maintained. Evidence concerning student intake may indicate that the NSPA universities are losing ground to more southern higher education facilities. Instead of attracting "southerners" to the North, the higher education opportunities first of all acts as an "entering options" for regional youth who eventually pursue further education and job opportunities outside the region. Secondly they are able to maintain a certain level of activity by attracting non-citizens to free education opportunities. With the introduction of fees the level of interest seems to decline. The relative deficit of people aged 25 to 35 furthermore demonstrates difficulties providing attractive opportunities for this population after the end of their studies in all three countries.

The question is what these different forms of imbalances between age groups imply in terms of regional development perspectives. In the case of East and North Finland, the over-representation of older persons in working age is accompanied by a very low employment rate in this category. The lack of labour supply resulting from the retirement of these cohorts will therefore be relative modest. The presence of relatively larger proportions of retired persons in the NSPA will require major efforts with regards to infrastructure and service provision, which may jeopardize local and regional budget balances. In the context of a welfare society, the presence of a retired population may however also represent an inflow of money in the local economies, through retirement schemes and the consumption of public services. As this produces job opportunities, especially for the female population, it may contribute to a more balanced and dynamic labour market. The economic added value of pension payments may therefore be amplified through a relative overconcentration of elderly people in the peripheries.

Text Box 1: Ristijärvi Seniorpolis: a concept for senior citizens and a factor of enhanced innovation

Ristijärvi municipality, located in Kainuu region, has a particularly high share of elderly and retired people where almost 30% of municipal population is aged 65 year and over. Only two NSPA municipalities have a higher, namely Rautavaara in Finland and Pajala in Sweden.

Ristijärvi has however chosen to approach this demographic challenge as an opportunity rather than as a threat. They even seek to increase the share of elderly, especially by encouraging return migration of retirees. The actions undertaken for this purpose emphasize the environmental qualities of the municipality and the high level of service provision for elderly people.

This is part of a local development strategy built around the concept of "Seniorpolis": more service provision for elderly people gives additional job opportunities for younger people, which in turn improves the overall vitality of the municipality and increases the population in all age groups.

Seniorpolis is also a centre of expertise developing business operations that promote well-being and lifestyle opportunities for senior citizens. It works in cooperation with universities, research institutes, private and public companies and organizations. The main themes are education, housing, healthcare and recreation. The goal is to promote know-how, technology, product development and business concepts within different senior citizen services. The presence of numerous elderly people is in this way used as an asset for innovation.

Source: Seniorpolis – a unique Finnish concept for senior citizens (2008).
http://www.seniorpolis.com/kuvat/Esite-Seniorpolis1.pdf

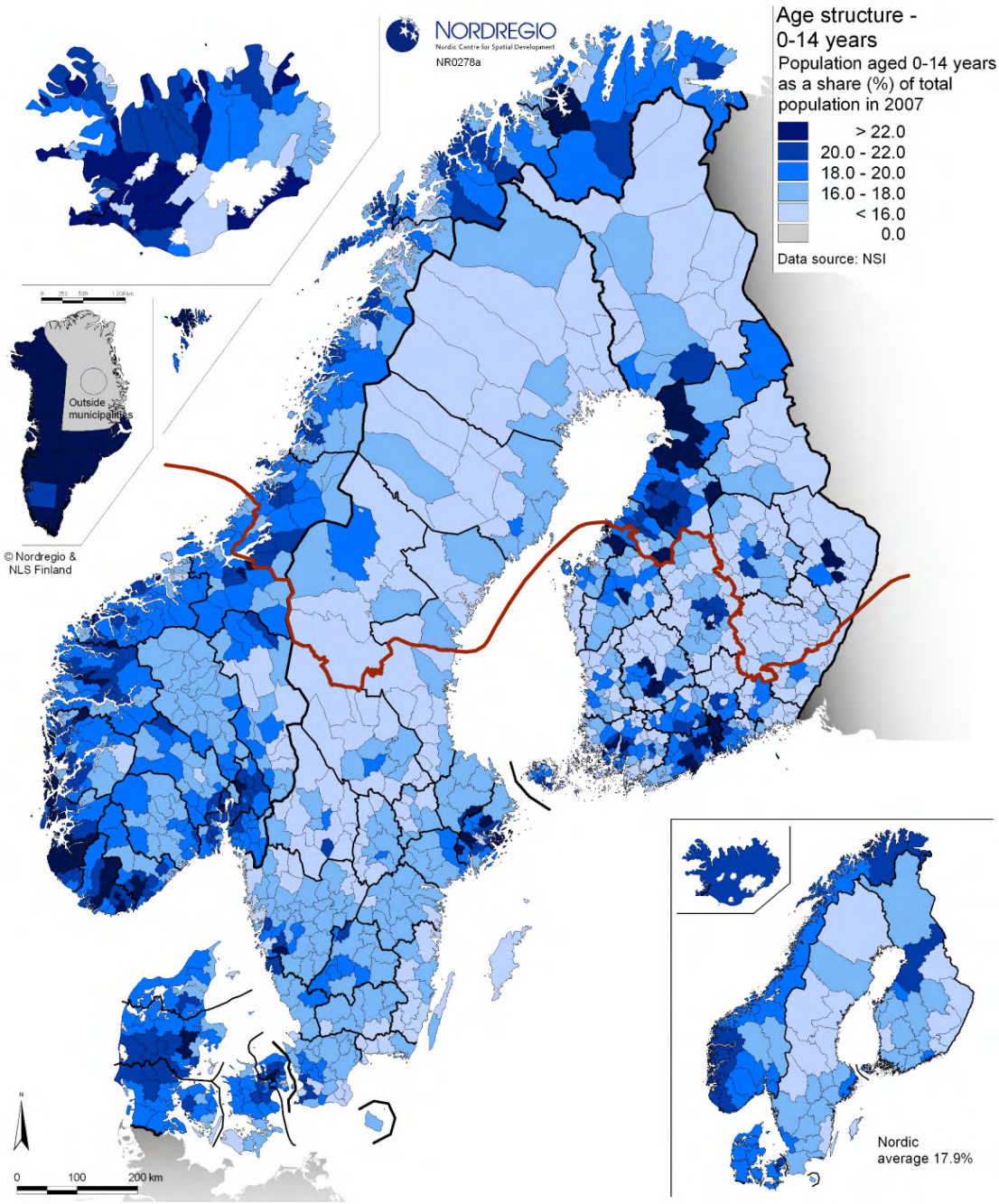


Figure 7: Proportion of children in municipal population

As previously discussed, national net reproduction rates differ substantially between the Finland, Norway and Sweden. This partly, but not fully, explains why the NSPA is a contrasted space in terms of proportions of children. Northern Norway and especially Northen and Central Ostrobothnia in Finland can show to relatively high levels. Sweden and East Finland are by contrast characterised by lower proportions than in the rest of Norden, with the exception of the main urban municipalities.

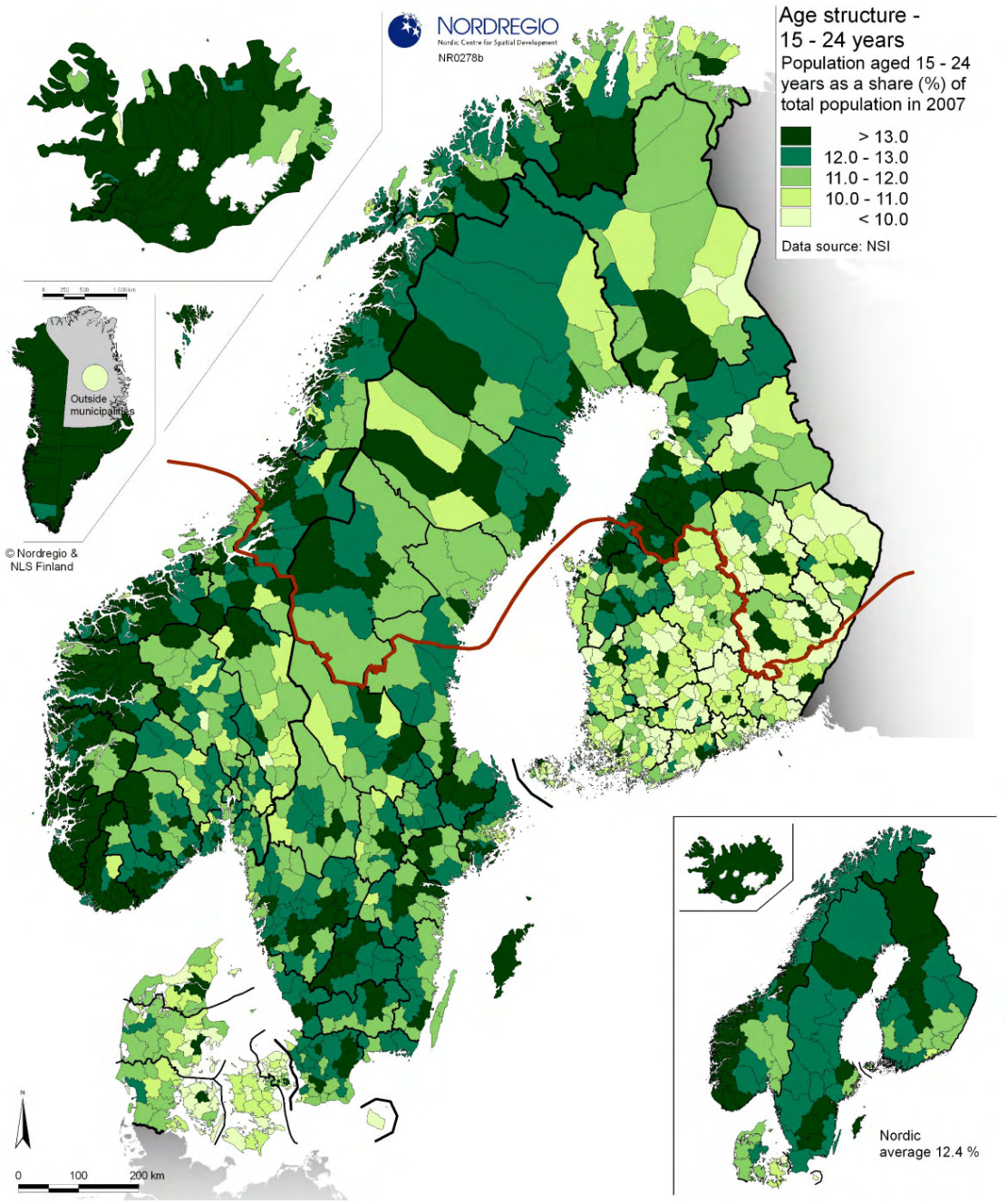


Figure 8: Proportion of young adults in municipal population

Geographical patterns concerning the proportion of young adults are quite distinct from those related to children. This illustrates the wide differences in the capacity of municipalities to keep and attract young adults, which are especially related to the presence or absence of higher education opportunities. A range of municipalities demonstrate a capacity to attract students from other outside the NSPA. A critical aspect for municipalities without higher education opportunities is to develop strategies to attract young adults to return to their place of birth after they have finished their education.

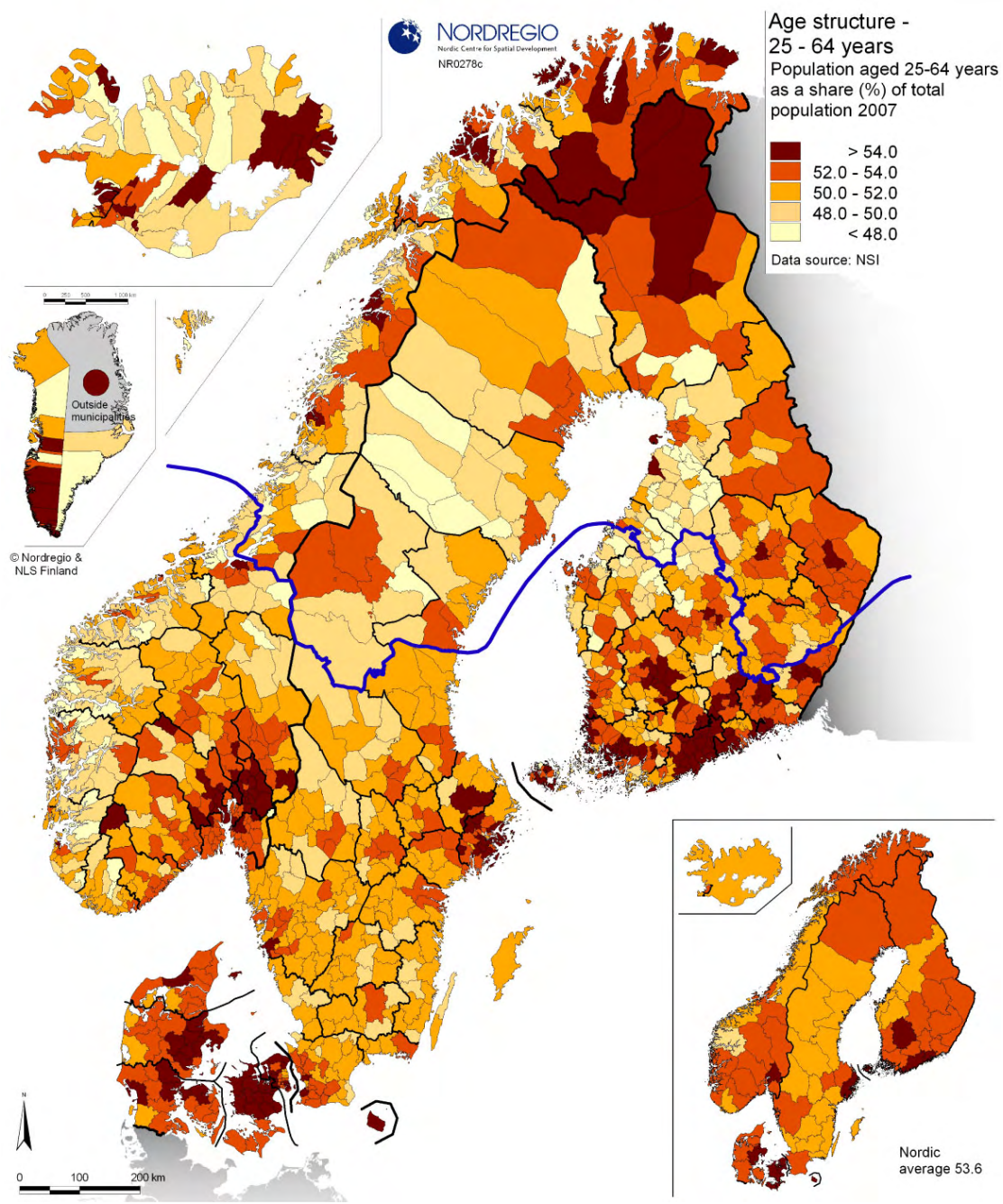


Figure 9: Proportion of core working age population

The proportions of people over between the ages of 25 and 64 are particularly high in the Sami areas of Norway and Finland, and more generally in Northern Norway and Eastern Finland. This however corresponds to quite diverse situations. In the Norwegian cases, this result reflects relatively equal age classes, and therefore a more balanced demographic situation. In the Finnish cases, there is generally a strong overrepresentation of persons aged 50 to 65, which in the coming years will strongly increase the old age dependency ratios in these areas.

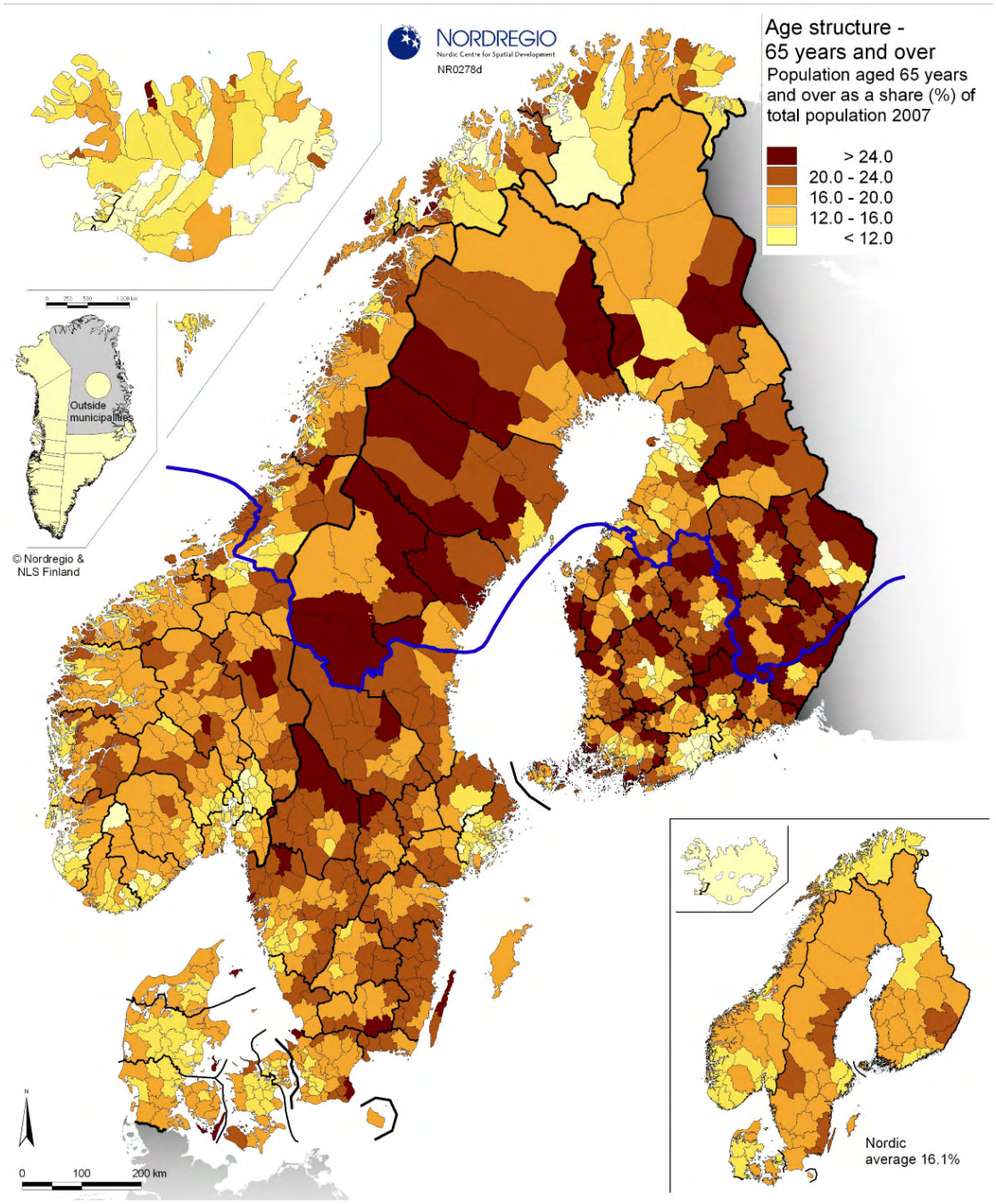


Figure 10: Proportion of retirees

The highest proportions of persons over 65 years of age are to be found in the inner parts of Finland and Sweden.

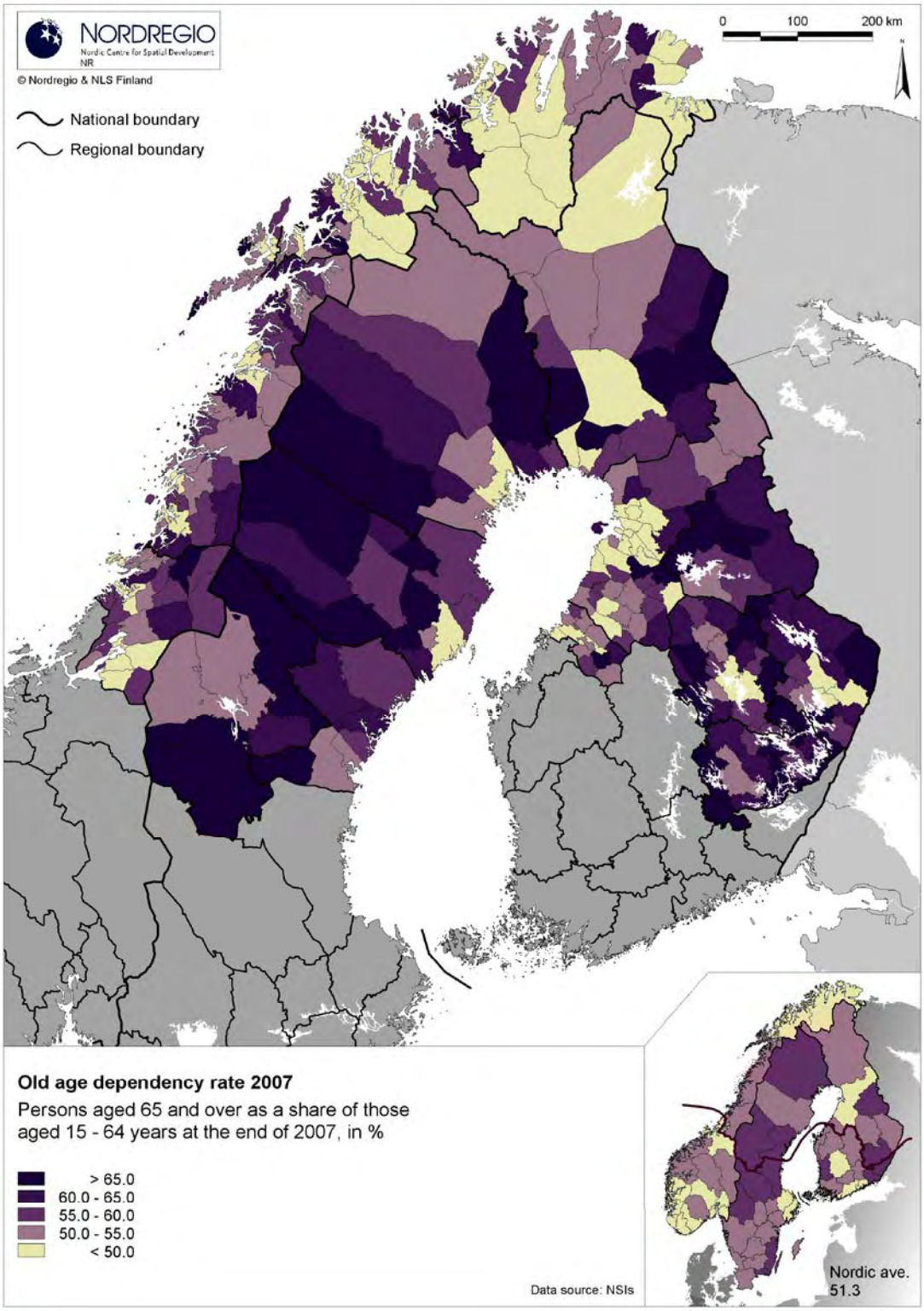


Figure 11: Age dependency ratio – elderly people

The highest old age dependency ratios are to be found in the inner parts of Finland and Sweden, leading to major challenges for financing and organising service provision. The most favourable situations are to be found in urban areas and in municipalities with a large Sami population.

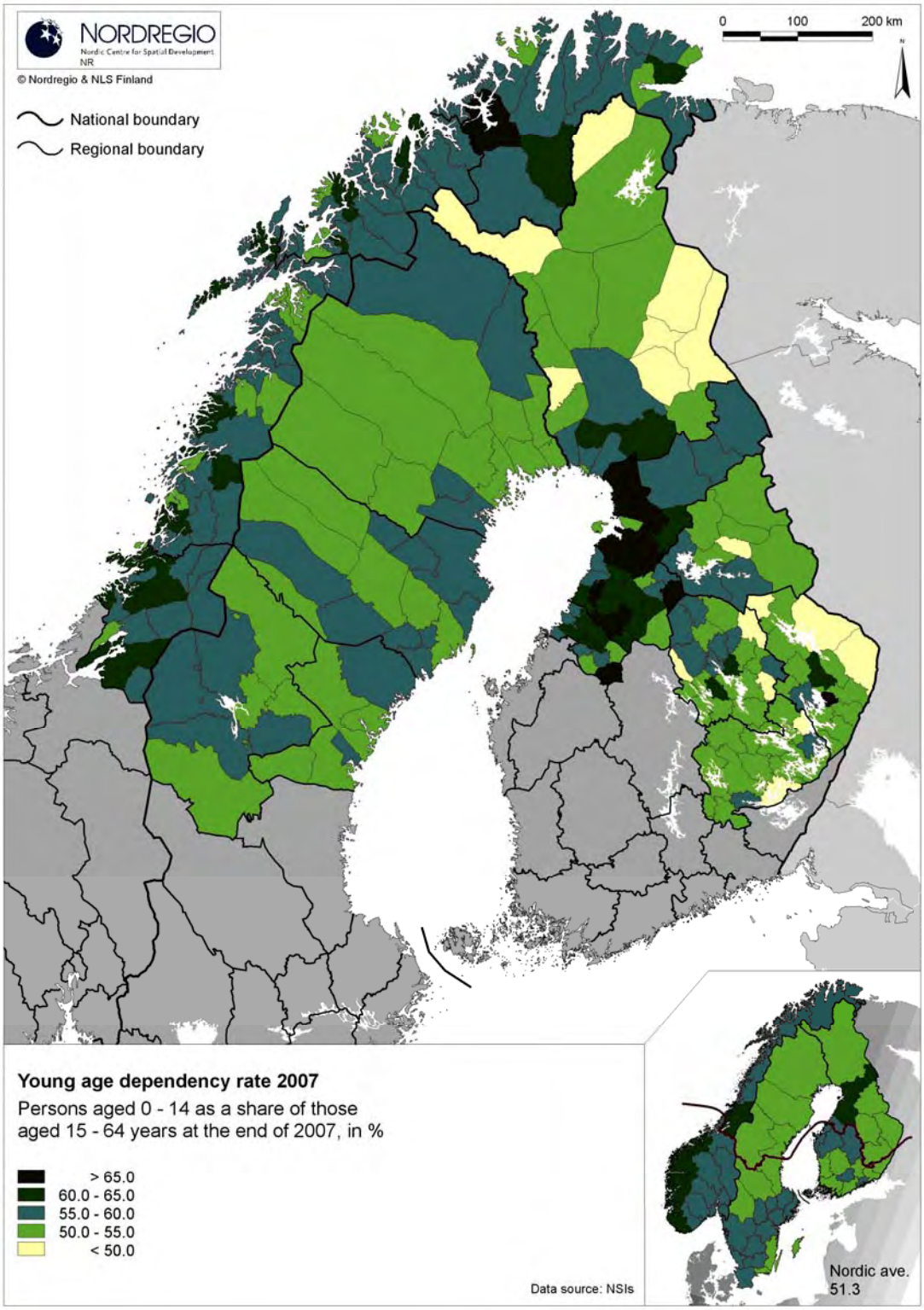


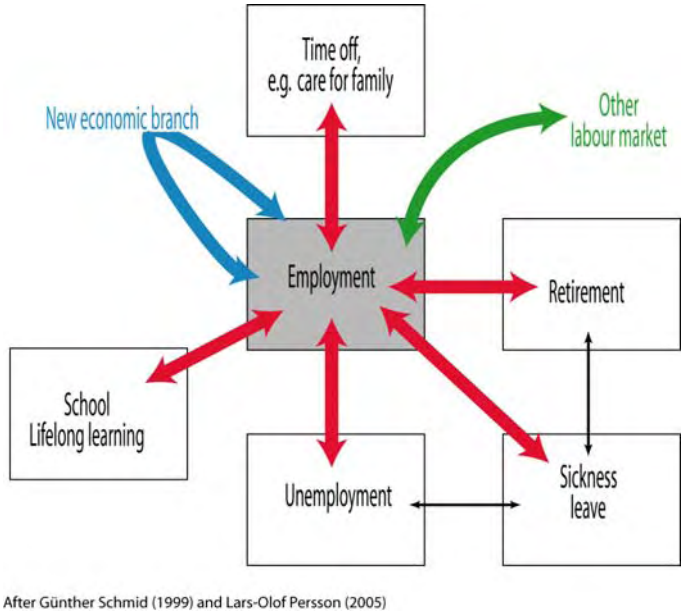
Figure 12: Age dependency ratio – children

The highest numbers of children compared to working age population are observed in the coastal parts of Ostrobothnia and in Norway.

Different forms of mobility in the NSPA

Providing employment opportunities corresponding to the size and profile of the local labour force does not suffice to ensure the good functioning of labour markets. Labour markets need to be envisaged as transitional systems,

Research from Sweden demonstrates that yearly movements into the category "employment" reach 20 to 25% of the total labour force: 8 to 10 percent points correspond to a change of economic branch; 8 to 10 percent points correspond to movements from different forms of 'non-employment' (unemployment, time-off, sickness leave). The last few remaining percent points correspond to movement between labour markets, either through in-migration or commuting[11]. These figures obviously only correspond to approximate average values, and vary considerably from area to area. They however illustrate the extent of flows occurring each year in local labour market.



After Günther Schmid (1999) and Lars-Olof Persson (2005)

Figure 13: Managing the movements in the labour markets – a challenge for the NSPA

This implies that a number of parameters need to be taken into account when seeking to establish more balanced labour market areas. The employment rate (Figures 14 and 15) indicating the proportion of the working age population in employment shows a distinct contrast between Finland and the rest of the Nordic countries. This especially concerns workers aged 55 to 64 years in Eastern parts of Finland. Partial explanations to the observed values can be found through the long term unemployment rates (Figure 16) in these parts of Finland. The proportion of persons on sickness leave is also relatively higher in Finland and in inner Sweden (Figure 17), as a result of under-employment. Overall, these different types of mobility help explaining why changes in employment (Figure 18) and in the number of unemployed (Figure 19) are not necessarily correlated.

[11] Johansson, Mats, Persson, Lars Olof (2000) *Lokala arbetsmarknader i konkurrens : arbetskraftens rörlighet under 1900-talet*, delbetänkande, Regionalpolitiska utredningen, Stockholm Fritzes offentliga publikationer

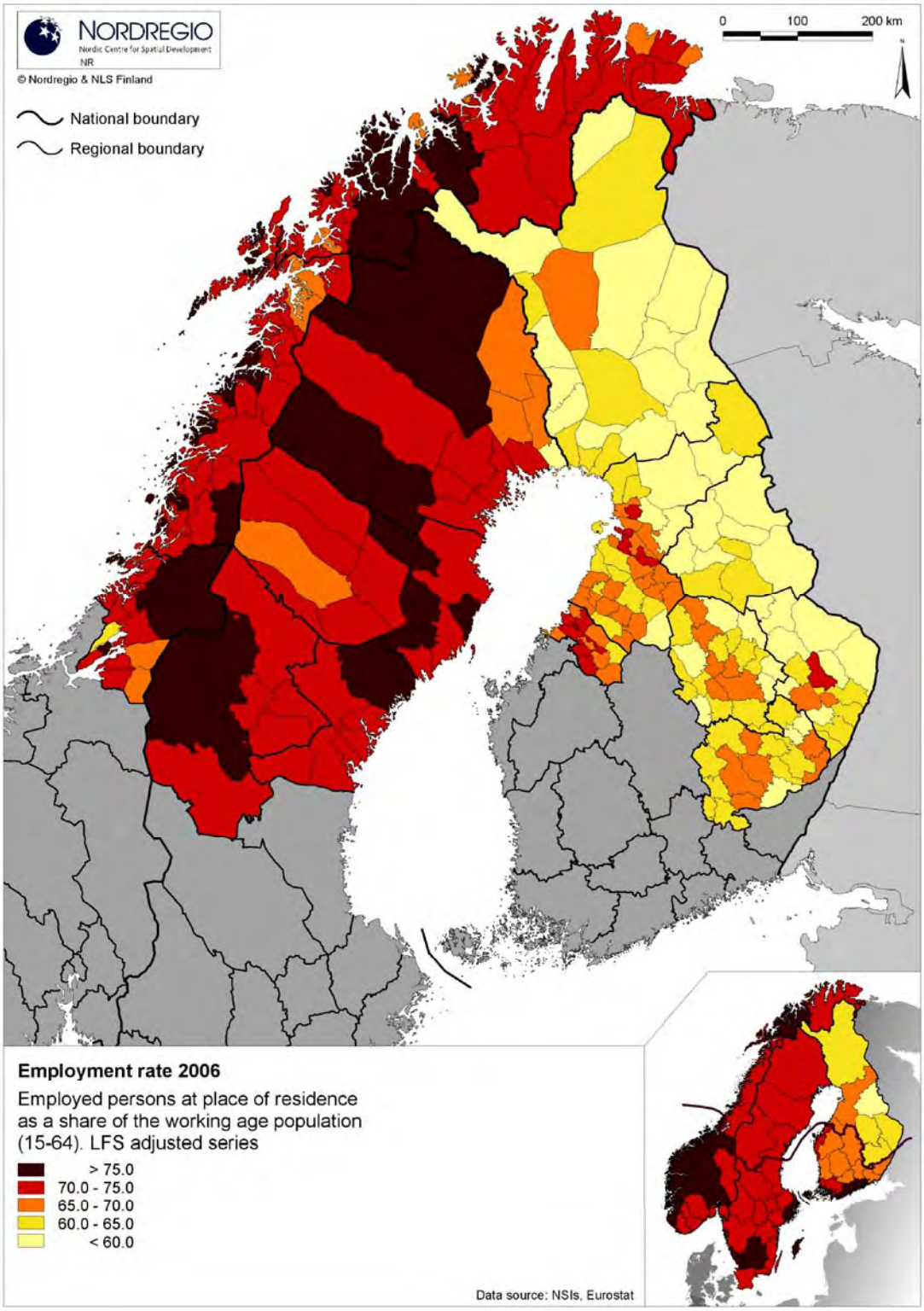


Figure 14: Employment rates

The employment rate is the core synthetic indicator on the performance of local labour markets. The NSPA is in this respect characterised by marked contrasts. The vast majority of Norwegian and Swedish municipalities are characterised by very high employment. Continued economic development in these areas presupposes strategies to attract new workers. Finland, on the other hand has large areas with low unemployment rates, mainly because of extensive long terms unemployment and large proportions of older workers outside of the labour market.

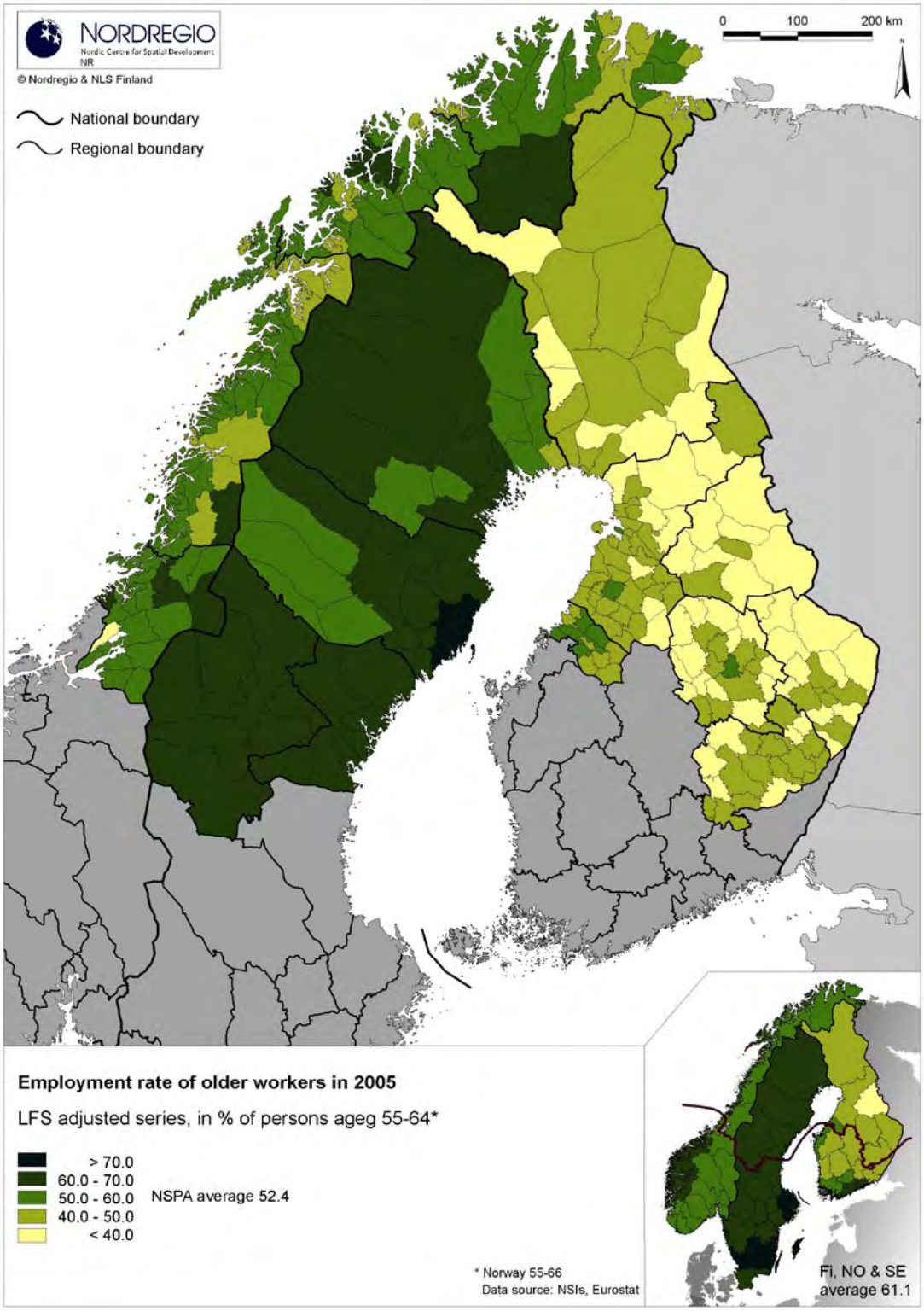


Figure 15: Employment rate of older workers

Low employment rates among older workers reflect difficulties in adjusting the labour force to a changing economic context, with different demands in terms of profiles and competencies. While the lowest values are to be found in eastern and rural parts of Finland, one can also find low values around Norwegian towns with a strong industrial past such as Mo i Rana and Narvik Swedish municipalities have in comparison been extremely successful in maintaining high employment rates in spite of industrial restructuring processes.

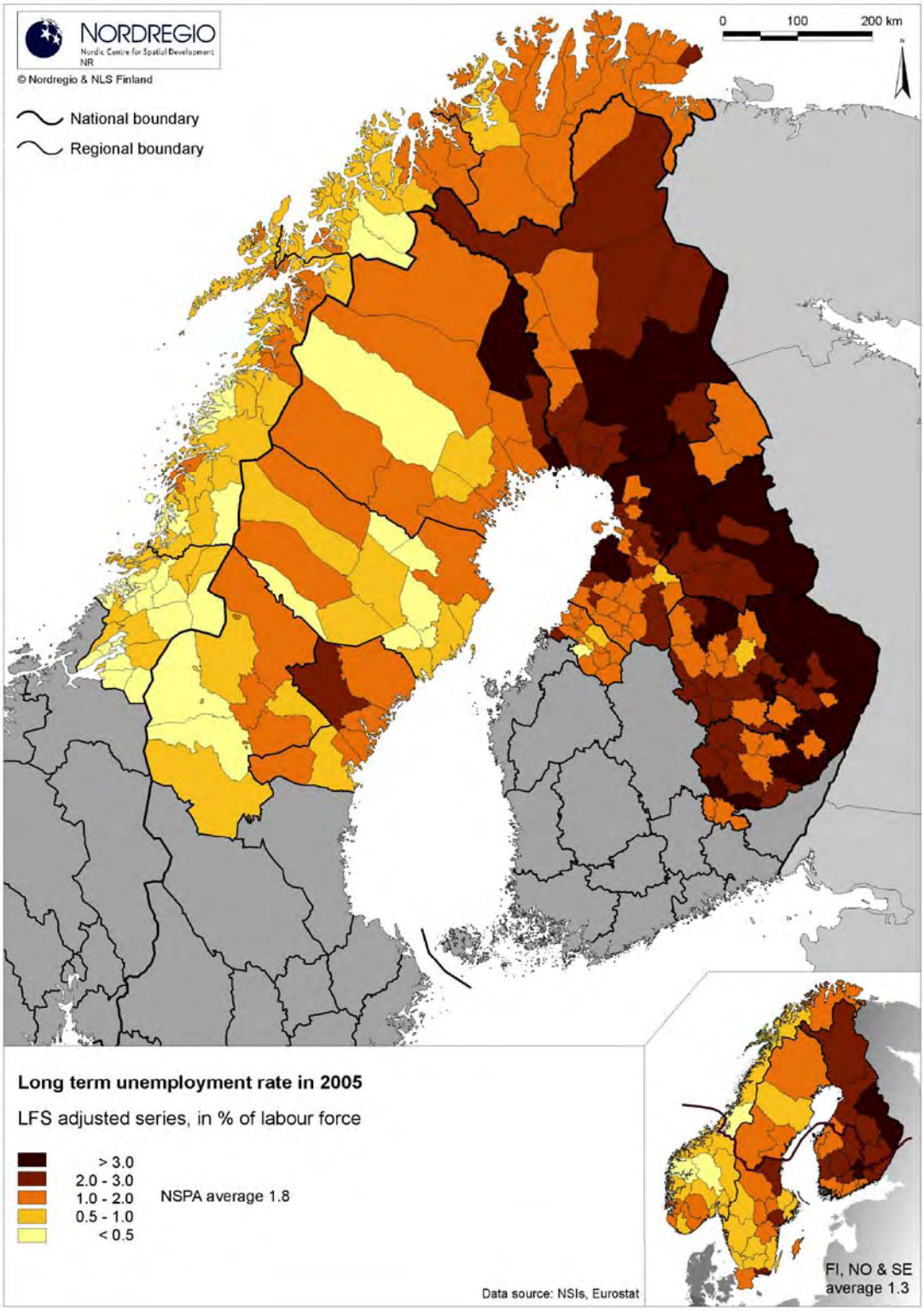


Figure 16: Long term unemployment rates

Long term unemployment rates reflect an exclusion from the labour market. The concerned groups generally tend to find it difficult to return to employment, even when a local economic upswing occurs. Overall rates of long term unemployment are generally very low in Norwegian and Swedish NSPA, the Torne valley excluded. Finland on the other hand has distinctly higher rates of long term unemployment.

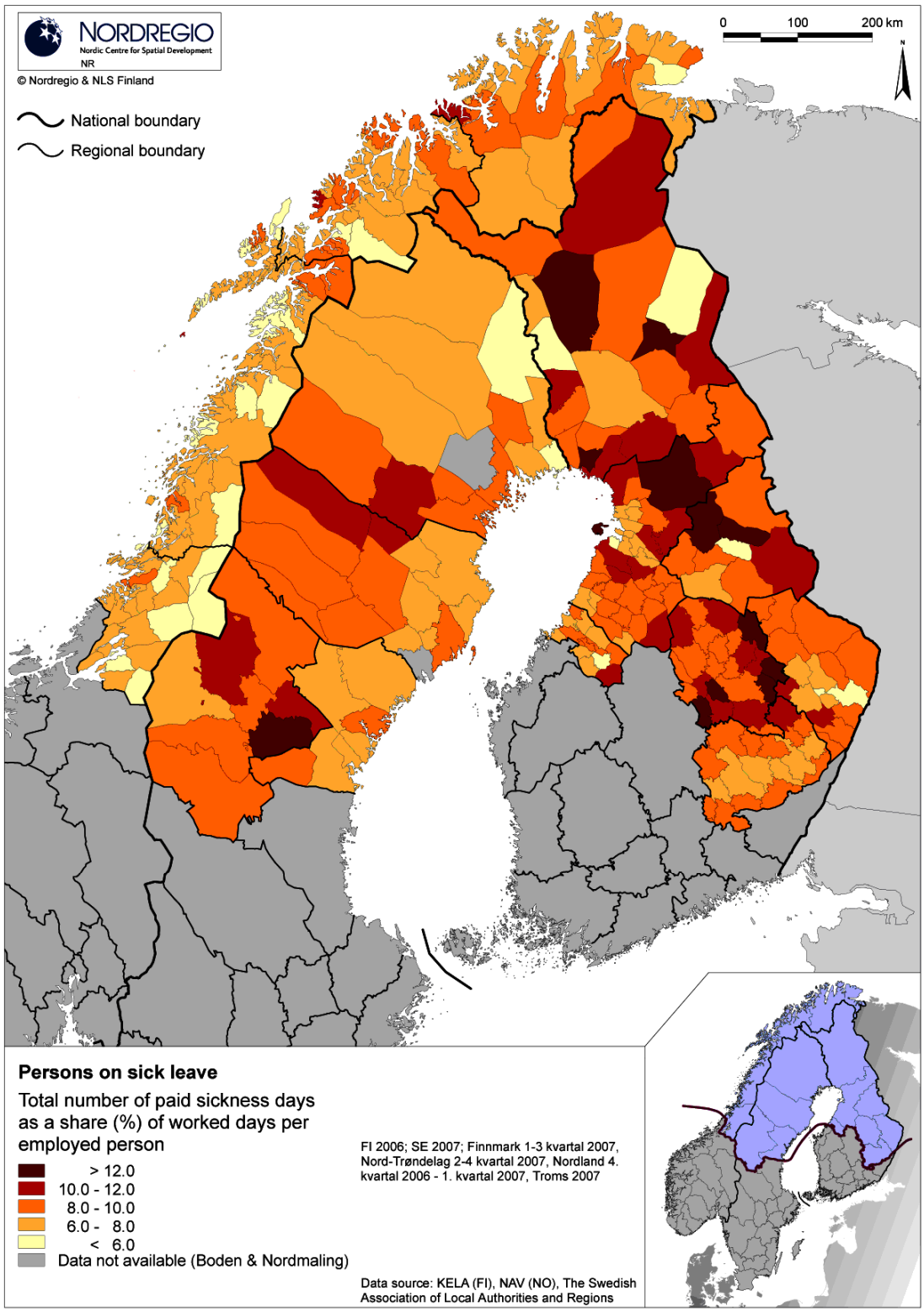


Figure 17: Sickness leave

The proportions of persons on sickness leave are markedly higher in rural parts of especially Finland and, to a lesser extent, Sweden. These patterns cannot be observed in Norway, where the highest values are concentrated on the northernmost parts of the NSPA.

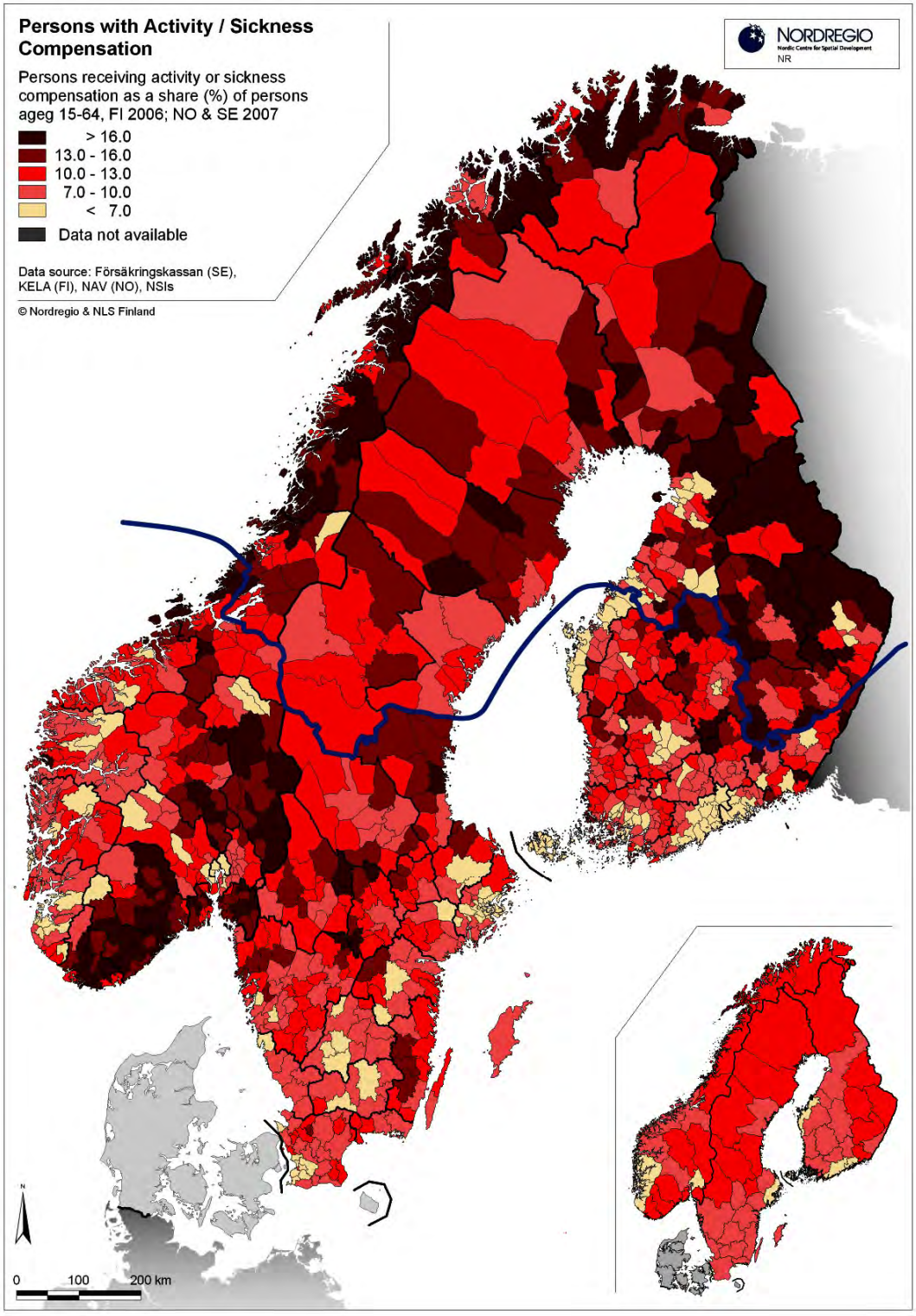


Figure 18: Persons with activity/sickness compensation

High proportions of elderly people generally lead to higher rates of persons receiving activity/sickness compensation. There are however effects, for example from high unemployment. There is also evidence of 'contagion effects', as an increase in the number of people with activity/sickness compensation diffuses from groups of people made redundant to other segments of some local communities.

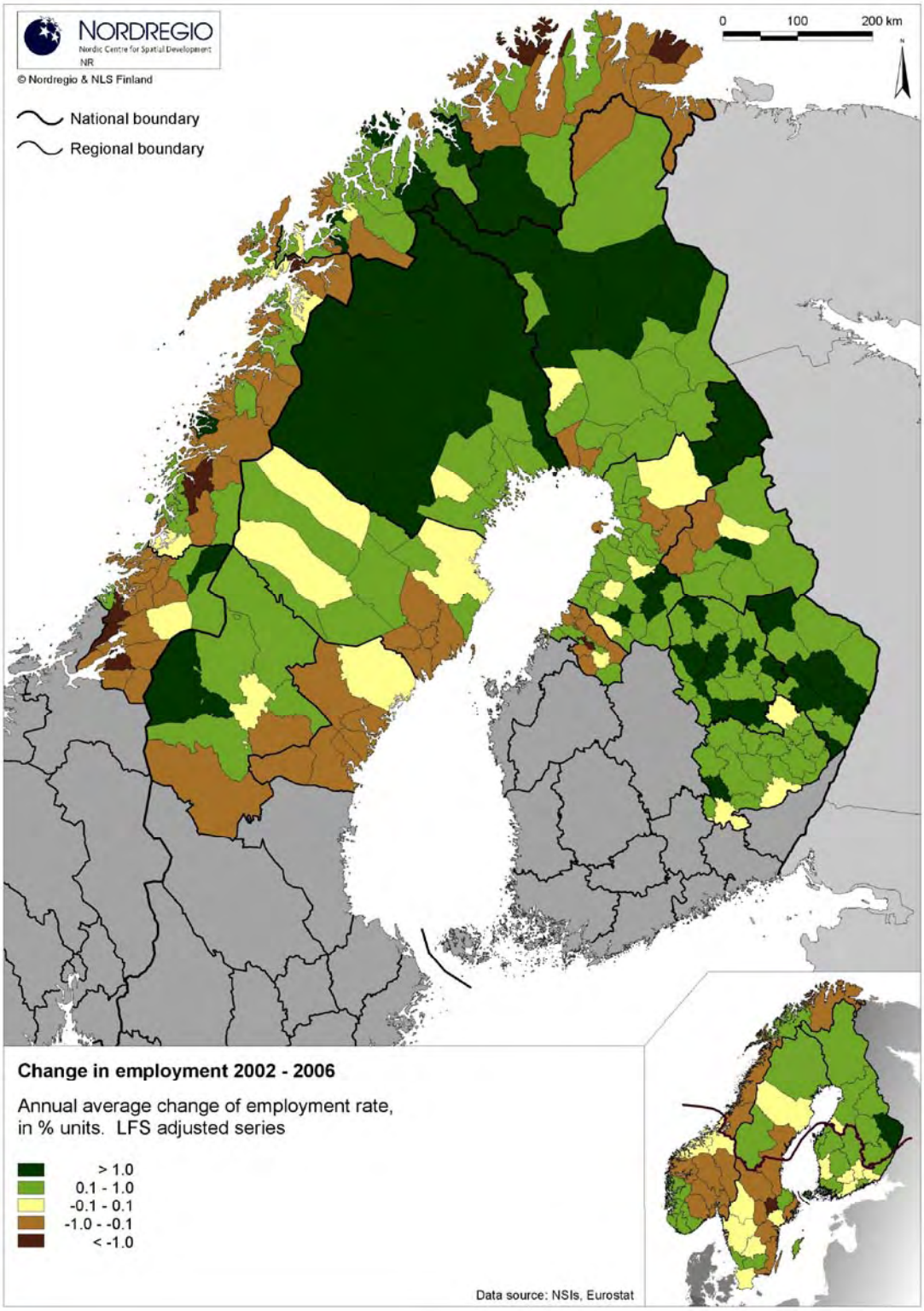


Figure 19: Change in employment between 2002 and 2006

Recent trends reflect a contrasted picture in terms of employment rates. While the situation has been improving in inner part of Norrbotten, Lappi and in East Finland, it has deteriorated in large parts of Northern Norway. The most positive trends to some extent correspond to the retirement of underemployed cohorts of older workers, and to the economic dynamism in parts of inner Norrbotten. They are also linked to high outmigration.

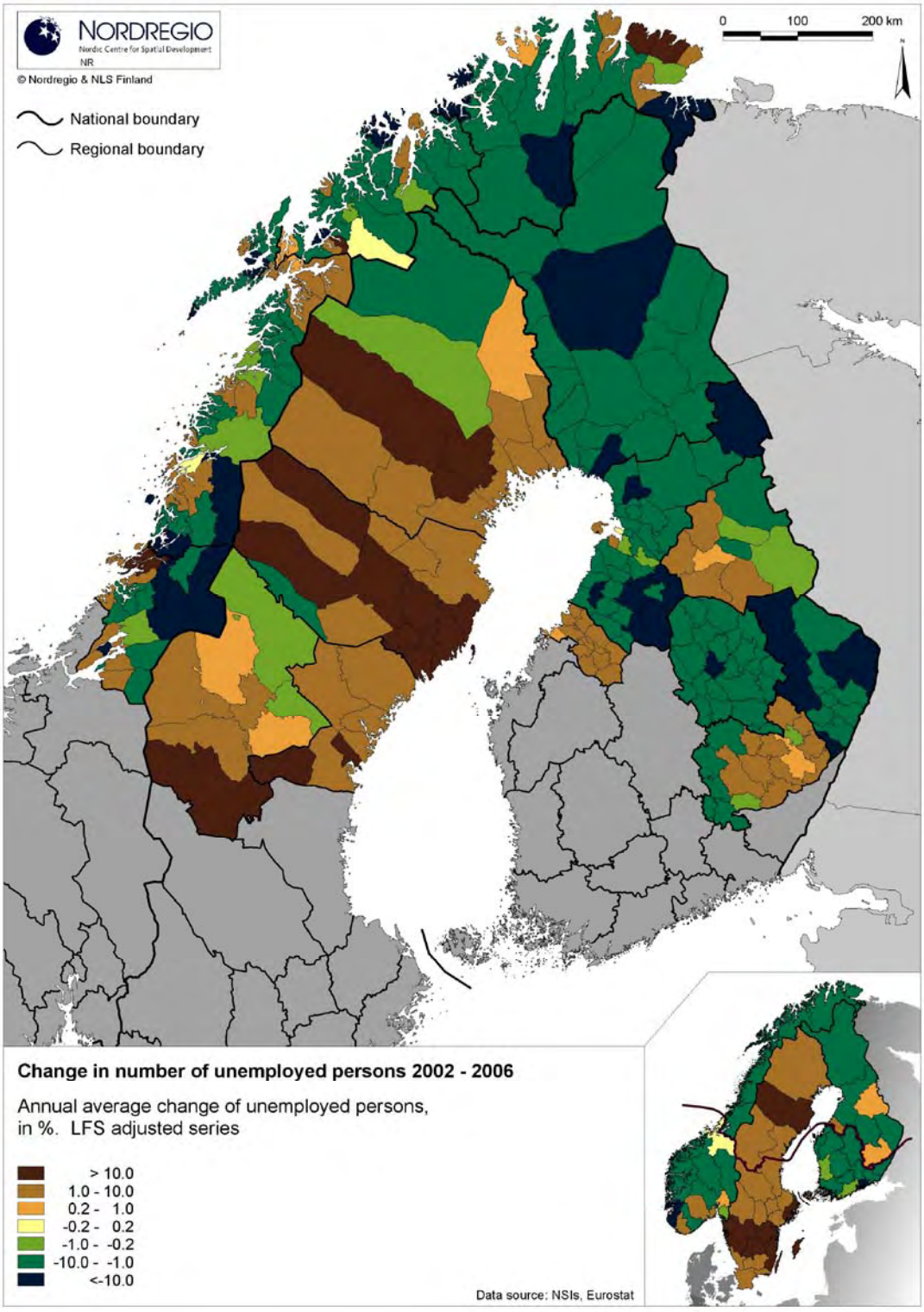


Figure 20: Change in the number of unemployed persons between 2002 and 2006
It may seem paradoxical to see the number of unemployed persons rising in a period of economic prosperity such as the 2002-2006 period. This has however been the case in large parts of the Swedish NSPA, including areas where employment has been rising (inner parts of Norrbotten and Västerbotten, Kiruna, Gällivare and Dorotea excluded, and northern part of Jämtland). Similar trends are also observed in Etelä Savo. Pohjois Karjala, Pohjois Pohjanmaa and Lappi have on other hand observed positive trends. The locally more contrasted trends in Norway must be seen in perspective with the very low starting values.

Migratory trends in the NSPA

Net migratory trends at the regional in the NSPA give the picture of regions losing population, which is often interpreted as a sign of economic and social decline. This image however needs to be nuanced, both in terms of the actual flows that occur and in their geographic patterns.

Negative net migration figures in these areas need to be related to the much larger constant circulation of people in all region and municipalities. Maps illustrating negative net migration such as Figure 22 in other words should not be interpreted too literally as groups of people leaving the NSPA, as they just as much correspond to people failing to return to the NSPA or more generally to a circulation that become unbalanced in one direction or the other. As shown by Table 4, yearly total population movements in and out of individual NSPA regions amount to between 5 to 8% of the total population. This demonstrates that relative attractiveness of the NSPA, which net migration figures may lead to underestimate. The total in and out flow figures also imply that policies impacting on the migratory trends do not so much need to focus on stocks of people, but rather on how to influence the constant flows in and out of each municipality and region.

Table 4 also shows that, while domestic net migration figures have systematically been negative in 2007, international net migration figures have systematically been positive. While the latter figures are far from compensating for the former, this may suggest future trends. Among the ways of compensating for demographic losses resulting from domestic migrations from north to south and from periphery to core, international immigration has been considered a possible solution. It is however a major challenge to attract people with the appropriate competencies and profile, to integrate them in small local communities and to encourage them to settle on a perennial basis. Attracting workers from Northwest Russia is considered a possible solution, as these regions possess a workforce with competencies within relevant sectors of activity (e.g. mining, forestry and fishing) and as the gap in terms wage levels remains important. According to the Norwegian Foresight report *Arena*, the economic development in Northwest Russia however implies increased competition for qualified employees, and makes it unlikely that massive in-migration to the Norwegian NSPA will occur. The difficulty of predict both short- and long term migration trends is however illustrated by he cases presented in Text boxes 2 and 3.

Table 4: Migratory movements in the NSPA: Extensive in- and out-migration
(figures for the year 2007)

Region	Domestic migration					International migration		Total movements (in+out)	
	within NSPA		outside NSPA		total			No	As % of
	in	out	in	out	netto	immigration	emigration	of people	population
Finland									
Etelä-Savo	1 464	1 811	3 132	4 015	-1 230	397	135	10 954	6,9%
Kainuu	1 325	1 549	906	1 356	-674	324	49	5 509	6,6%
Keski-Pohjanmaa	623	614	1 284	1 444	-151	216	87	4 268	6,0%
Lappi	2 362	2 849	2 589	3 032	-930	810	429	12 071	6,5%
Pohjois-Karjala	1 541	1 570	2 415	3 170	-784	445	177	9 318	5,6%
Pohjois-Pohjanmaa	4 445	3 766	4 581	5 700	-440	1 189	700	20 381	5,3%
Pohjois-Savo	2 986	2 587	3 546	4 456	-511	554	262	14 391	5,8%
Norway									
Finnmark	762	1 010	1 070	1 818	-996	793	226	5 679	7,8%
Nordland	1 517	1 438	2 446	4 243	-1 718	1 791	669	12 104	5,2%
Nord-Trøndelag	473	341	2 239	2 698	-327	1 242	277	7 270	5,6%
Troms	1 643	1 606	2 086	3 247	-1 124	1 674	664	10 920	7,1%
Sweden									
Jämtland	948	939	2 595	2 837	-233	778	364	8 461	6,7%
Norrbotten	1 441	1 832	2 929	4 674	-2 136	2 218	959	14 053	5,6%
Västerbotten	2 709	2 265	3 622	5 255	-1 189	1 926	886	16 663	6,5%
Västernorrland	1 675	1 737	3 508	4 670	-1 224	1 777	538	13 905	5,7%

Text Box 2: Finnmark immigrants returning to Russia

While Northern Norway expresses concern for the lack of available labour, the capacity to integrate workers from abroad appears deficient. Inteviews with 35 women in the age group of 20 to 40 years and having migrated from the Kola Peninsula village Teriberka, close to Murmansk, to Båtsfjord in Norway, illustrates this. The reason for moving was the negative economic and social consequences of the break-down of the Soviet system, including the lack of alternatives. After a couple of year's involvement in the fishing industry of Båtsfjord, they however all returned to their place of origin. The reason invoked for migrating back was lack of acceptance, both professionally and socially. Often they were met with degrading attitudes, especially in relation to their competences. Several of them had both substantial education behind them and experience from leading positions. But in spite of that, they were continuously positioned at the bottom of the labour market structure. As a consequence they never became integrated. Originally they only saw the fishing industry as a starting point for a career, but they never managed to "take off" in the system, and consequently they chose to return to Russia.

Parallel interviews with local labour market representatives showed that these never became aware of the problems encountered the in-migrants. Instead they saw the process as being "positive" because it provided cheap labour force in replacement of the missing Norwegian women. A major opportunity to develope a more dynamic development strategy was therefore missed.

Source: Aure, Marit (2008) *Arbeidsmigrasjon fra Teriberka til Båtsfjord 1999-2002*. Universitetet i Tromsø, Det samfunnsvitenskapelige fakultetet, Institutt for planlegging og lokalsamfunnsforskning.

Text Box 3: When integration is not an issue

Interviews with Thai in-migrants to Longyearbyen, Svalbard, indicates that integration in the local community is not necessarily an issue. The Longyearbyen Thai community, consisting of 67 persons, is the largest group of immigrants, equal to 3,3% of the total population. As none of the interviewed persons had any expectations regarding becoming integrated in the community, the question of integration – and consequently, the question of long term community involvement – had no impact on their decisions regarding staying or leaving. They were content to have established a little "enclave" which could serve as a cultural setting for them as long as they would be staying. And they had no specific strategy regarding leaving, as long as they had good income opportunities and felt accepted by the community. In contrary to the Russians who never saw themselves as builders of a ghetto, the Thais were used to that kind of situation, and had no other expectations.

Source: Rasmussen, Rasmus Ole (2008) Interviews with 12 persons – 10 females and 2 males – in Longyearbyen in the period 2nd to 12th of July, 2008. Results not yet published.

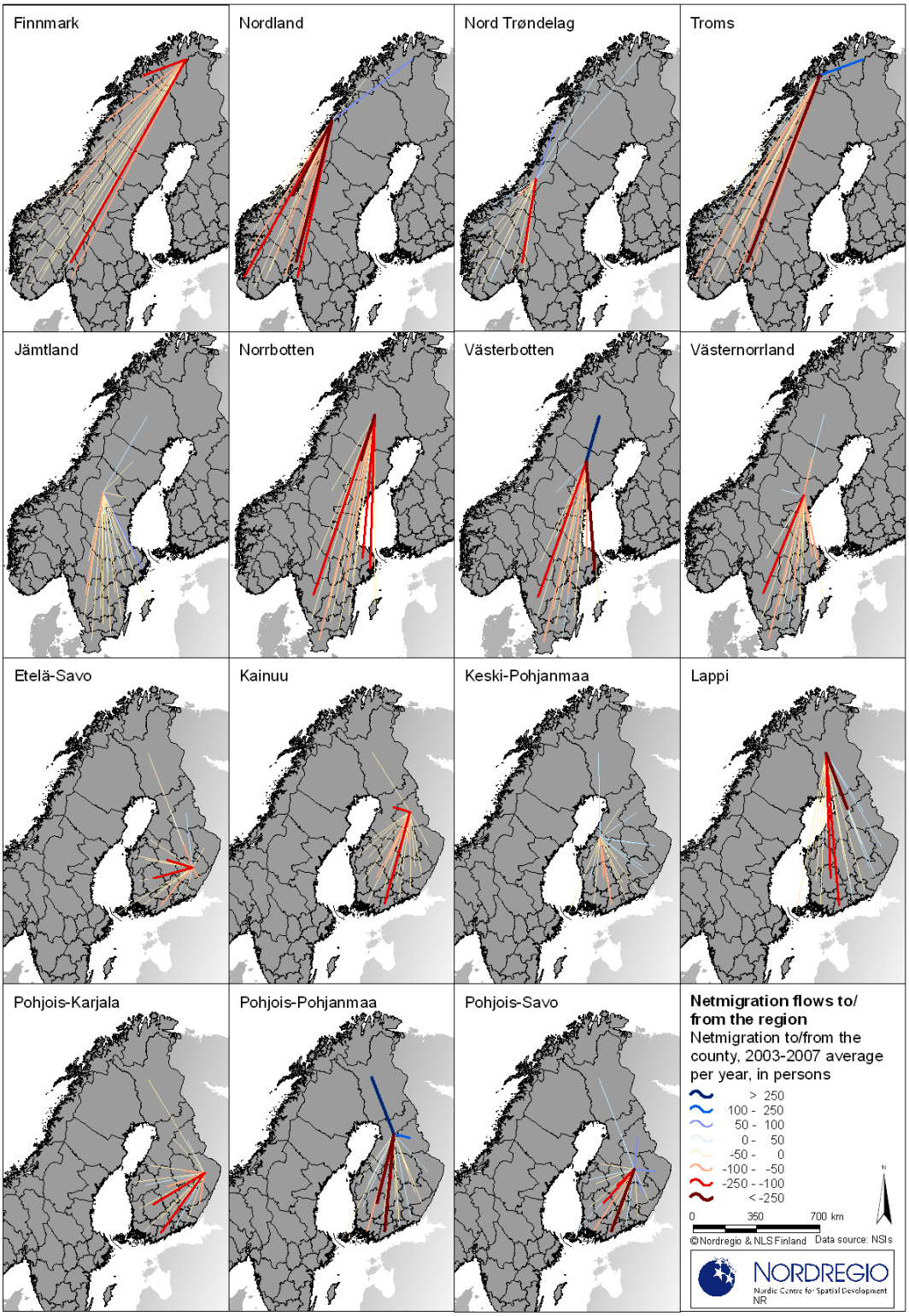


Figure 21: Domestic net migration flows to/from NSPA regions

Norway and Sweden show very distinct step-wise North-South migration patterns, whereby negative net migration systematically goes from north to south. In addition, the further north a region is, the more it loses population. In Finland, an equivalent East-West pattern combines with the North-South one.

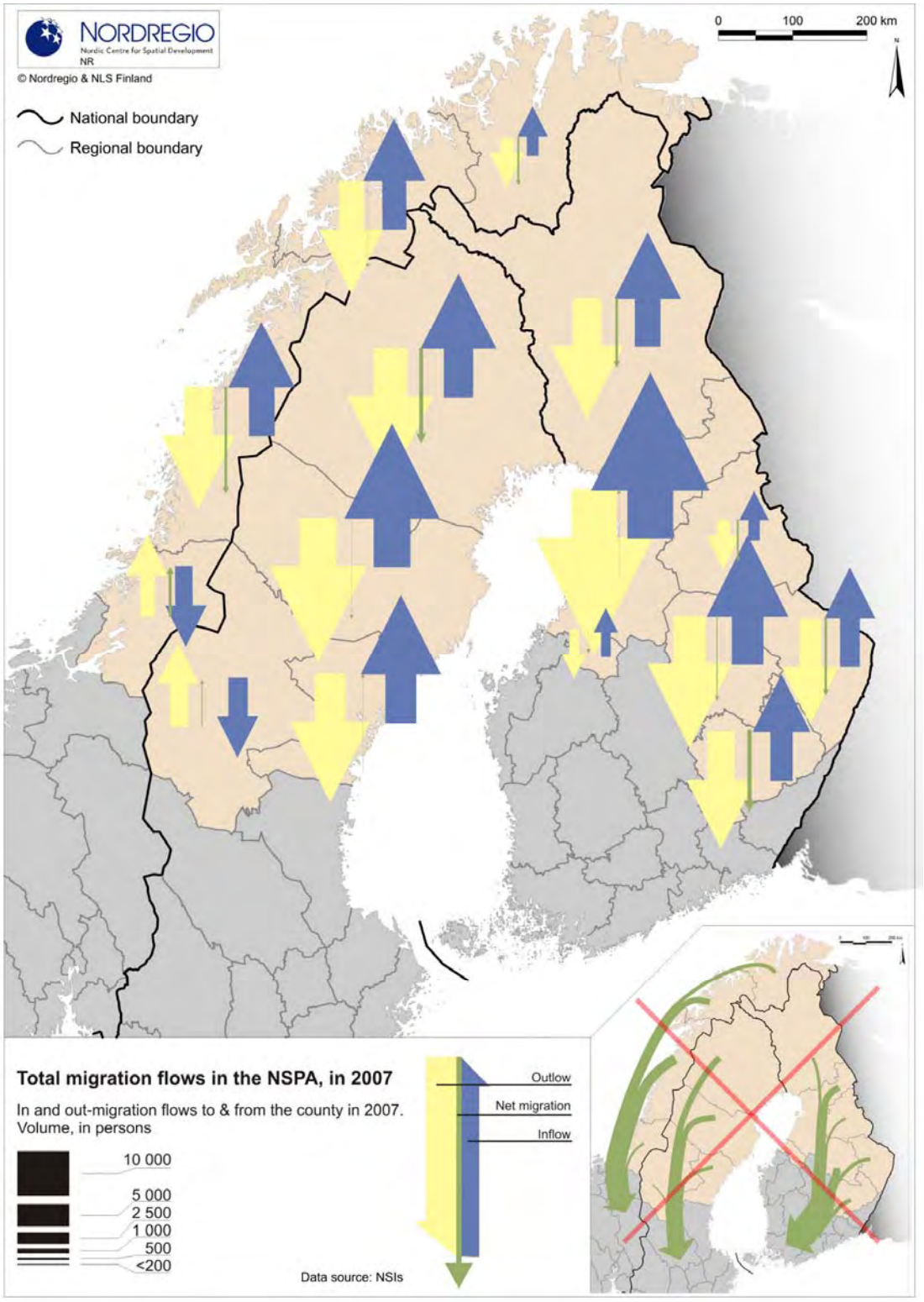
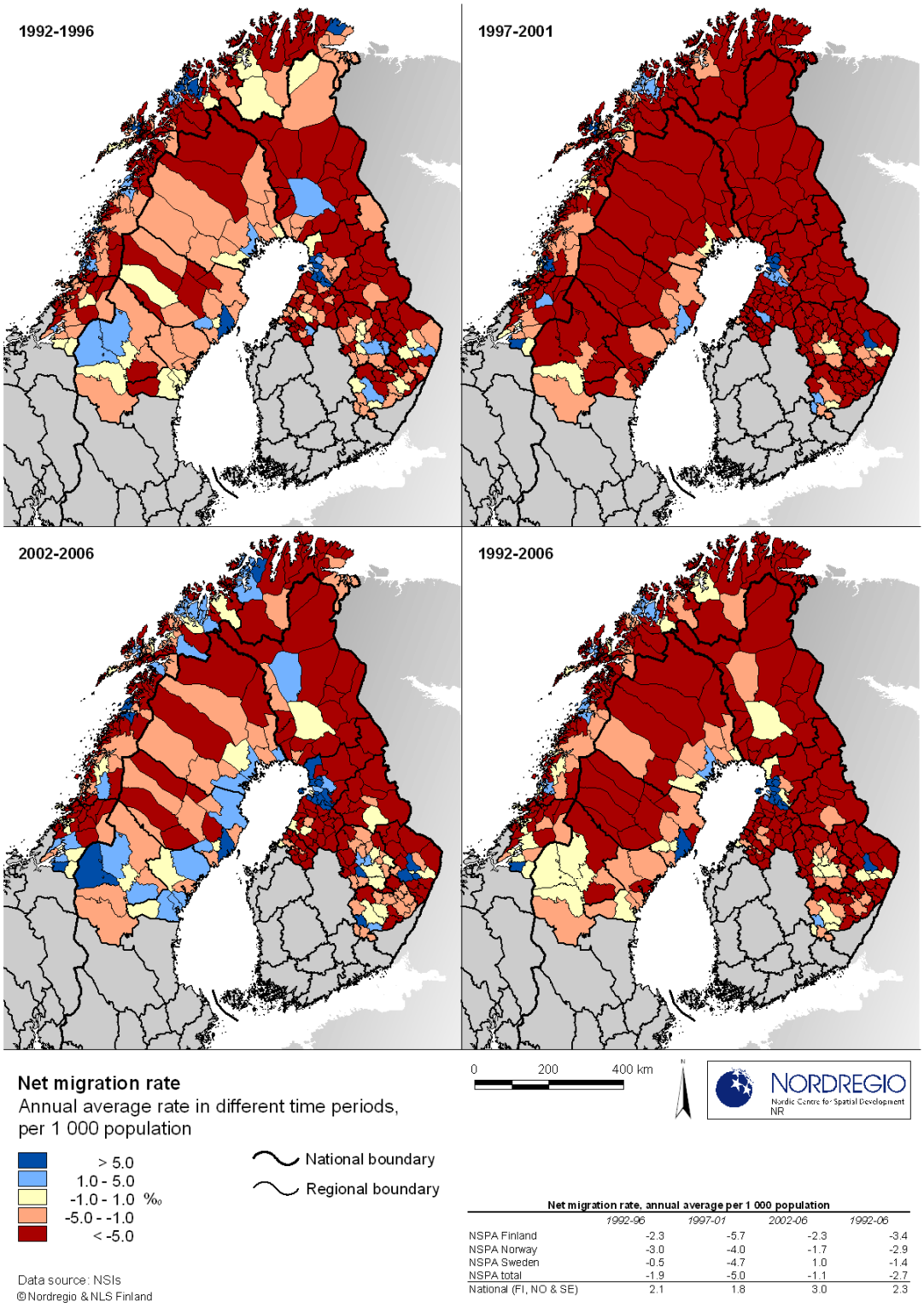


Figure 22: Domestic net migration flows in the NSPA

A map showing net flows such as the one in the bottom right corner can easily create a wrong impression: First, the extent of domestic flows out of the NSPA must not lead to underestimate their differentiation from north to south, regions such as Jämtland, Nord-Trøndelag and Keski-Pohjanmaa having quite modest out-migration flows and being net recipients of migratory flows from other NSPA regions. Second, these figures must also be seen in relation to the total flows in and out of each regions, which are considerably larger.



Net migration rate, annual average per 1 000 population

	1992-96	*1997-01*	*2002-06*	*1992-06*
NSPA Finland	-2.3	-5.7	-2.3	-3.4
NSPA Norway	-3.0	-4.0	-1.7	-2.9
NSPA Sweden	-0.5	-4.7	1.0	-1.4
NSPA total	-1.9	-5.0	-1.1	-2.7
National (FI, NO & SE)	2.1	1.8	3.0	2.3

Figure 23: Net migration rates in NSPA municipalities, 1992-2006

In spite of overall regional out-migration, most regions have one or more municipalities have with a net inflow of migrants. The main exceptions in this regard concern the 1997-2001 period, when even the largest municipalities in many regions did not manage to attract more in-migrants than out-migrants. The relative economic prosperity between 2002 and 2006 is accompanied by an increase in the number of municipalities with a positive or balanced net migration.

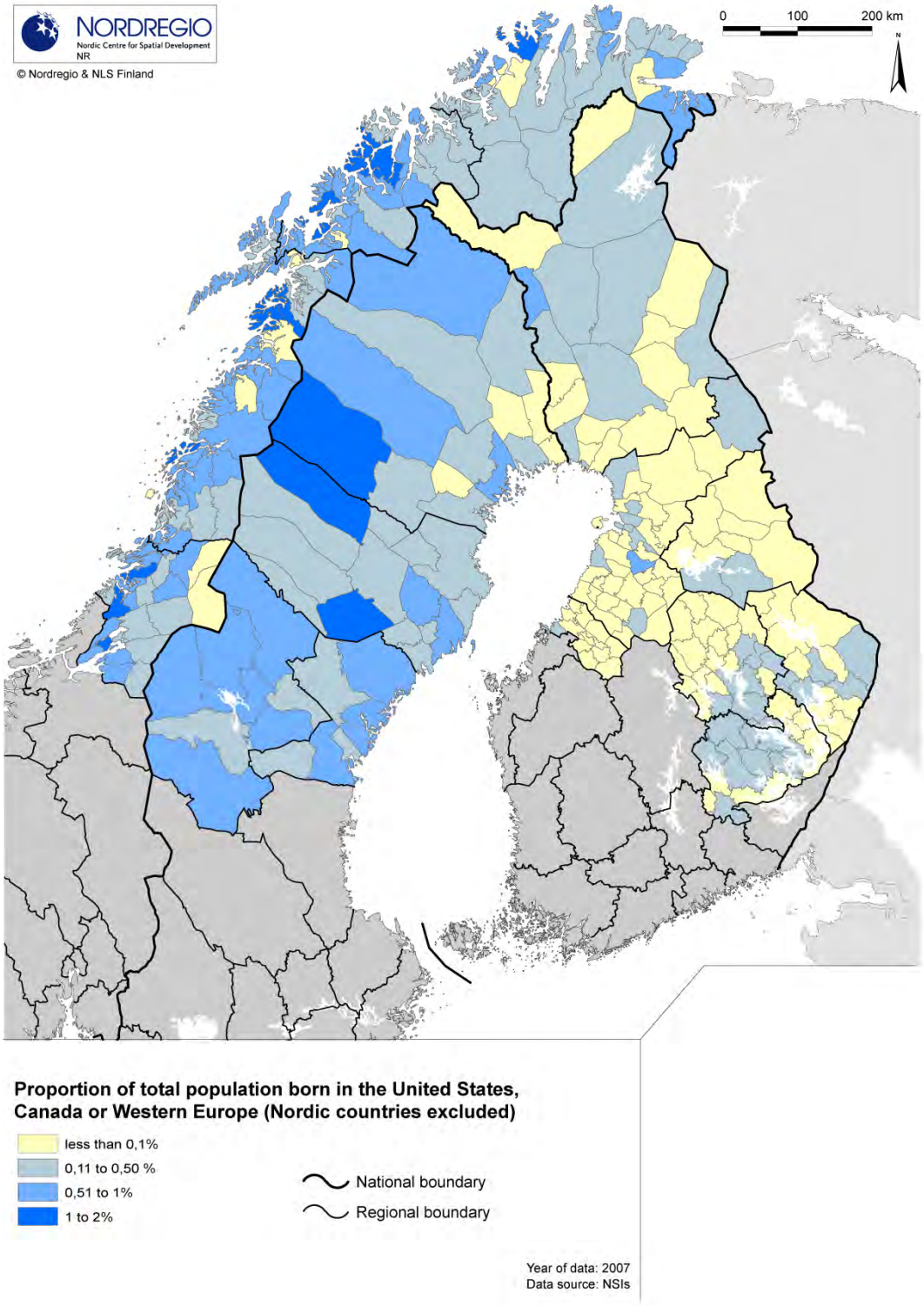


Figure 24: Proportion of total population corresponding to persons born in the "Western world" (Norden exluded)

The high proportions observed in Norway are partly due to a statistical bias, as foreigners are registered after only 6 months of presence instead of 12 in Sweden and Finland. Striking contrasts can however also be observed between Sweden and Finland, both in urban and rural parts. Some Swedish rural inland municipalities such as Sorsele, Arjeplog and Åsele stand out with values of more than 1%. This corresponds to small absolute figures (40 persons or less), but nonetheless reflects an attractiveness of these extremely sparsely populated spaces that could be further exploited throughout the NSPA.

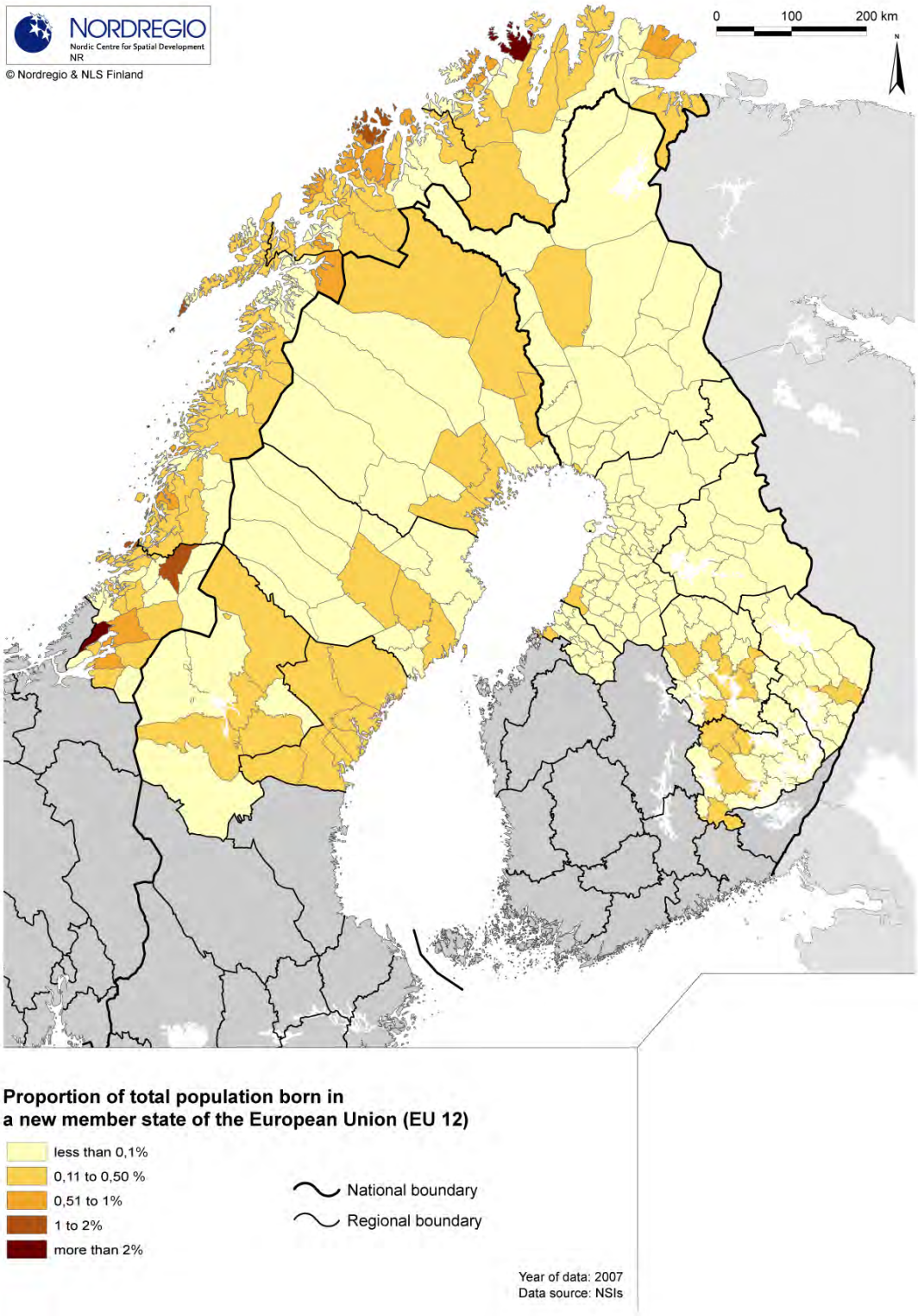


Figure 25: Proportion of total population corresponding to foreigners born in the new EU Member States

Particularly low figures throughout the NSPA show an underutilised potential for in-migration. The few exceptions concern the Norwegian municipalities of Verran, Namskogan, Vera, Moskenes, Karlsøy and Måsøy. Verran is an example of the cumulative effect of in-migration, as the current presence of 450 Polish workers employed in the steel industry helps attracting new workers from Poland. Måsøy has also had active public policies to attract Polish workers.

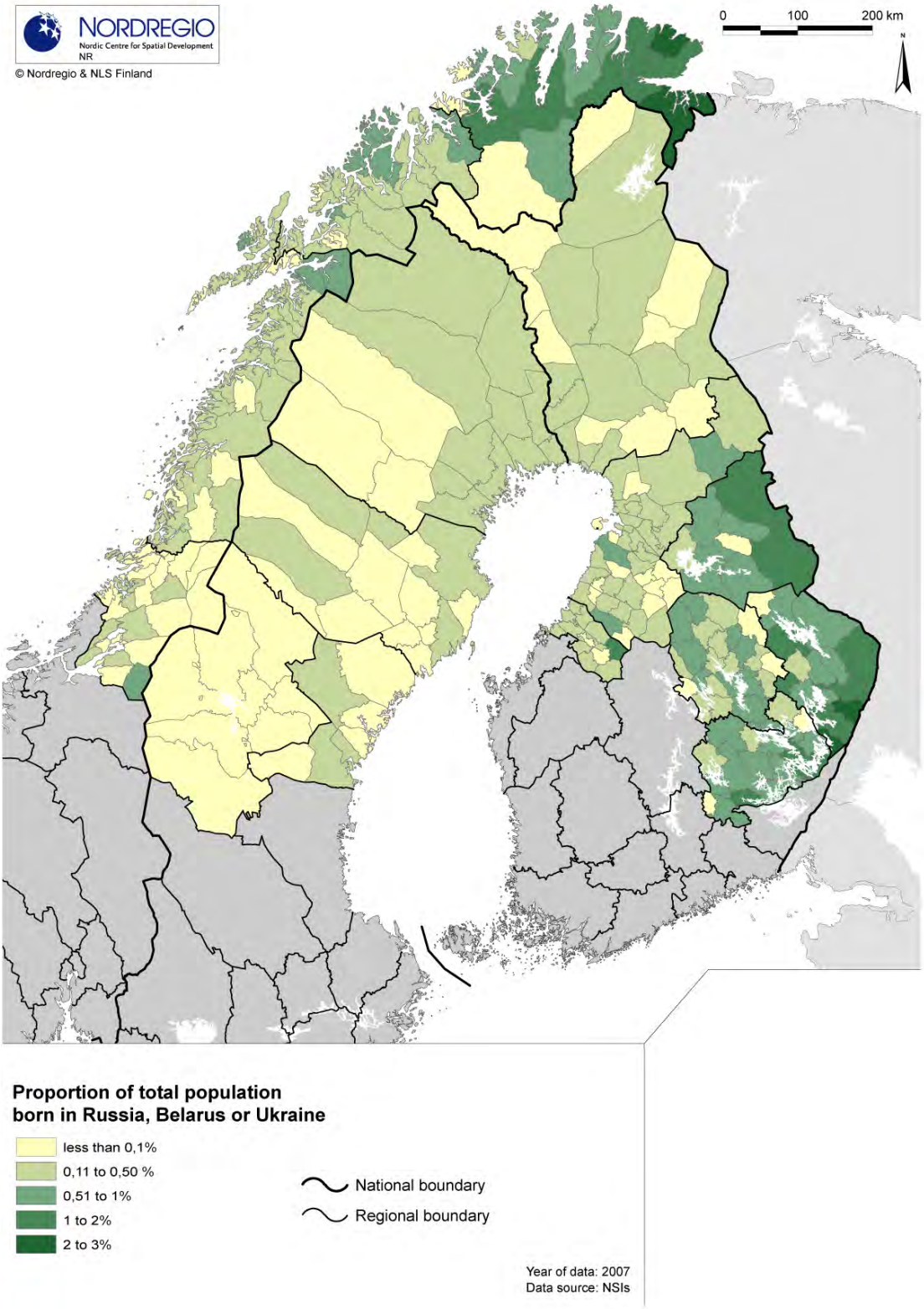


Figure 26: Proportion of total population corresponding to persons born in Russia, Belarus or Ukraine

The historical links appear through equivalently high numbers of persons born in Russia in East Finland and Northern Norway. Finnish Lapland and North Ostrobothnia by contrast have remarkably few inhabitants born in Russia.

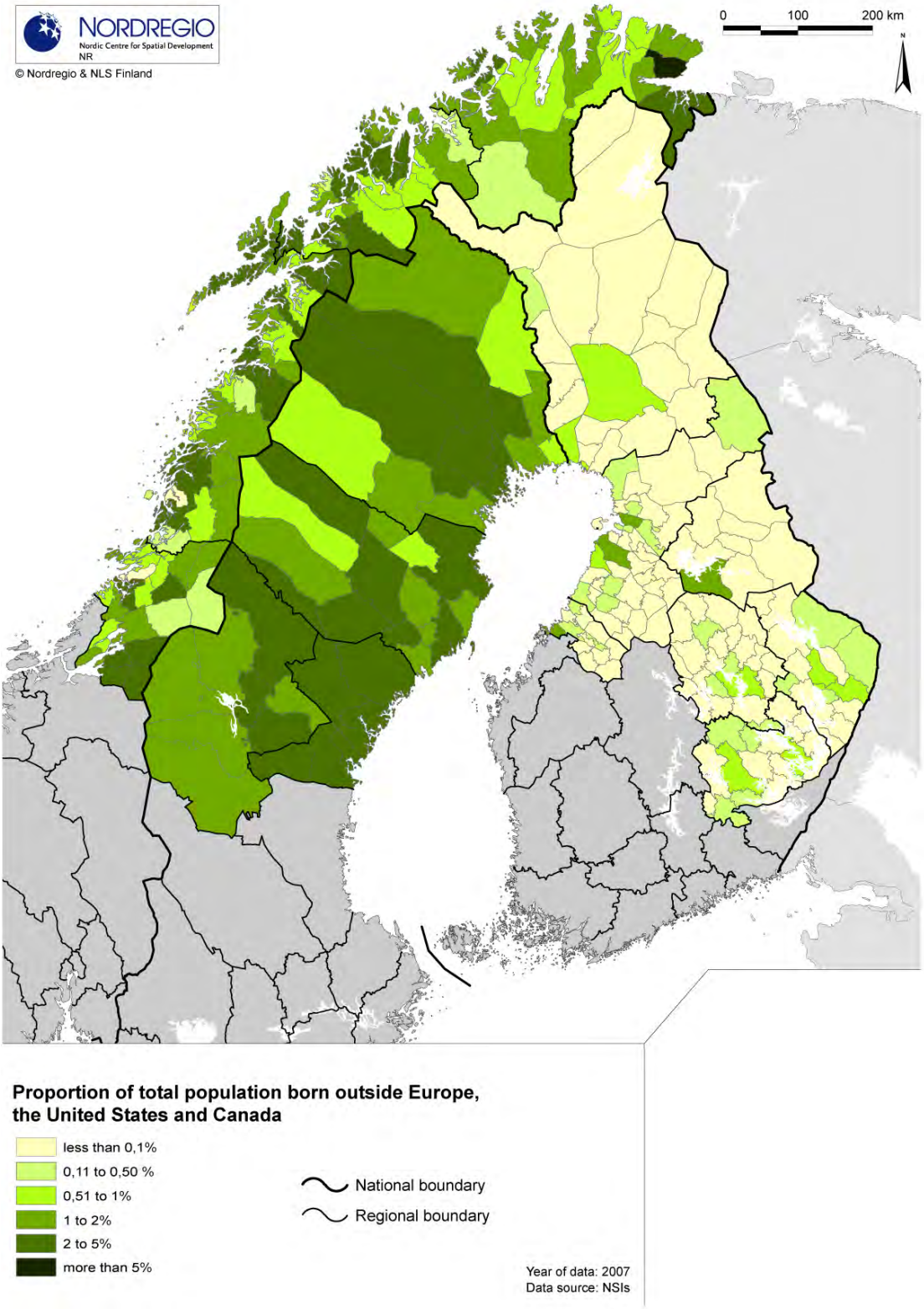


Figure 27: Proportion of total population corresponding to persons born outside Europe, the United States and Canada

In terms of immigration from outside the 'Western world', the primary contrast is between Finland on the one hand, and Norway and Sweden on the other. The proportion is however below 2% in large parts of the NSPA.

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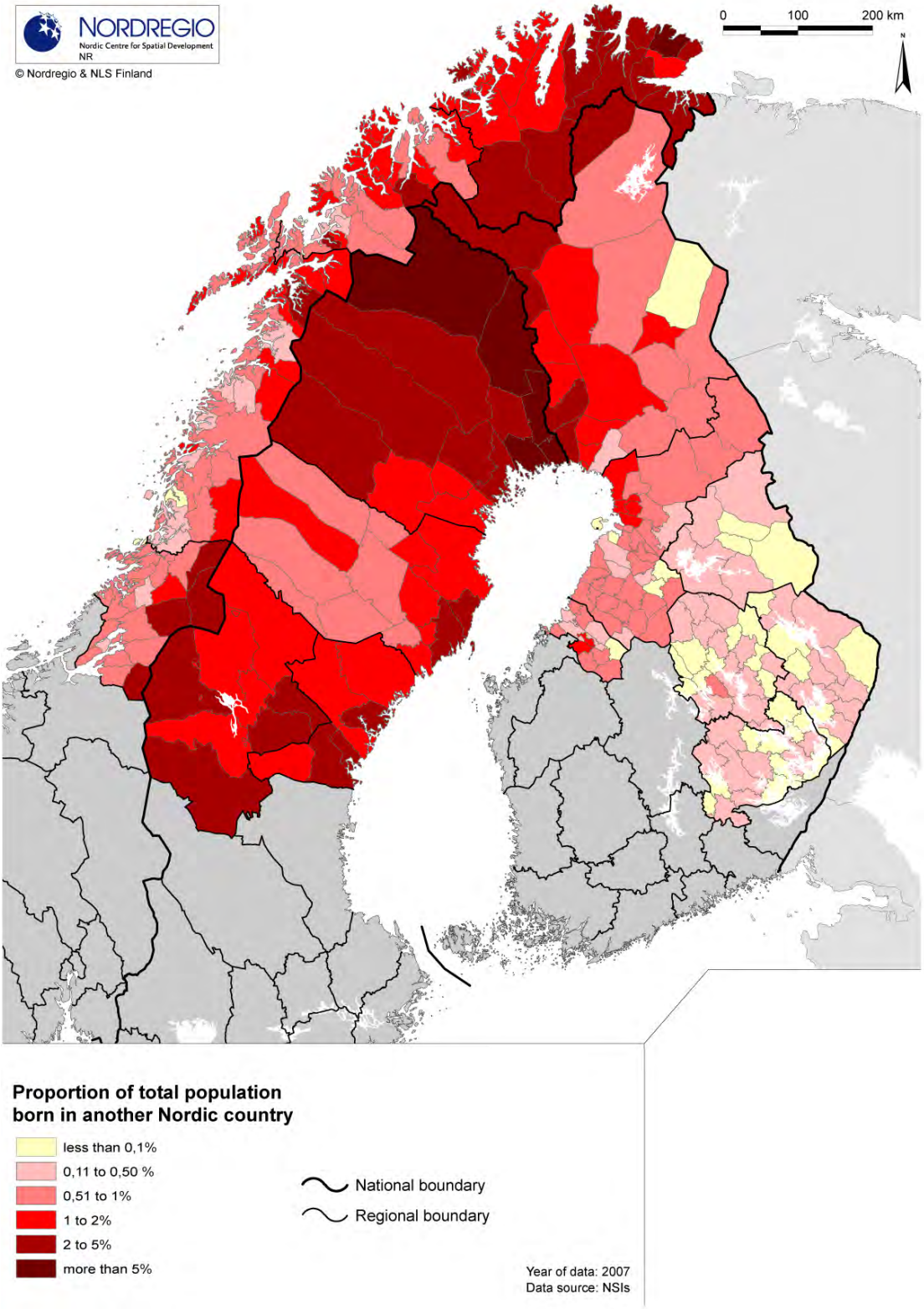

Figure 28: Proportion of total population cf corresponding to persons born in another Nordic country

The proportions of persons from another Nordic country are obviously related to border proximity, with the highest values to be found along the Swedish side of Swedish-Finnish border. The generally higher values in Sami areas and Sweden and Finland are related to linguistic proximity. The extremely low values encountered in East Finland bear witness to the limited movements from the rest of Norden to these regions.

Gender balance and its implications

At present one of the most important demographic challenges – not only in NSPA but in rural areas in general – is the marked differences in gendered migration patterns. The patterns regarding gender differences when it comes to affinity to rural and northern community life are quite homogenous throughout the NSPA: More female than males tend to migrate permanently away from their home community and region, on one hand to look for job opportunities which better fit their qualifications, but also social and cultural opportunities outside those characterizing the traditional economic activities in their communities.

The question of job opportunities is often emphasized as being the primary reason for moving, but more recent research seems to indicate that the question of "escaping" communities where the discourse is primarily male, and the cultural aspects are limited to the mail-oriented traditional cultural components – sports and physical activities, fishing and hunting etc.. Instead women are looking for cultural diversity, higher degree of social interaction, and challenges.

These patterns are similar to what is found in rural areas experiencing restructuring and decline of the agriculture sector, parallel to the growth of the service sector. These undergoing economic and social changes fundamentally affect women. Research undertaken in Europe and in North America reveals that unemployment combined with a lack of economic diversification has a greater impact on the professional and personal perspectives of women than of men. As rural areas are experiencing marked demographic, social and cultural changes, women tend to experience negative short-term and long-term consequences in terms of careers, earnings and pensions. This has severe consequences for migration patterns contributing to a continuing out-migration of young and well-trained persons. As the majority of those who leave are women, there are negative effects on the social life of that rural area. Not only does this jepoardize the possibility of marriage and of maintening a balanced family structures. It also has a a more genera impact on the social and cultural dimensions of rural life.

As illustrated by Figure 29 most of the municipalities with a deficit of women are found within the NSPA region. Within the NSPA region the few municipalities with woman surplus are predominantly found in urban areas and in the more densely populated areas, and especially in municipalities where there are extensive education opportunities. In contrary to this, areas with an extreme deficit of females are usually those connected to highly specialized male activities, This primarily concerns mining, but also activities related to military installations. As discussed above, some of the northern municipalities with an even distribution or a female surplus are benefitting from an influx of women, in some cases from Russia, but also from other regions which for a period of time are experiencing limitations to job offerings, and therefore adds to the compensation of the general pattern of female out-migration.

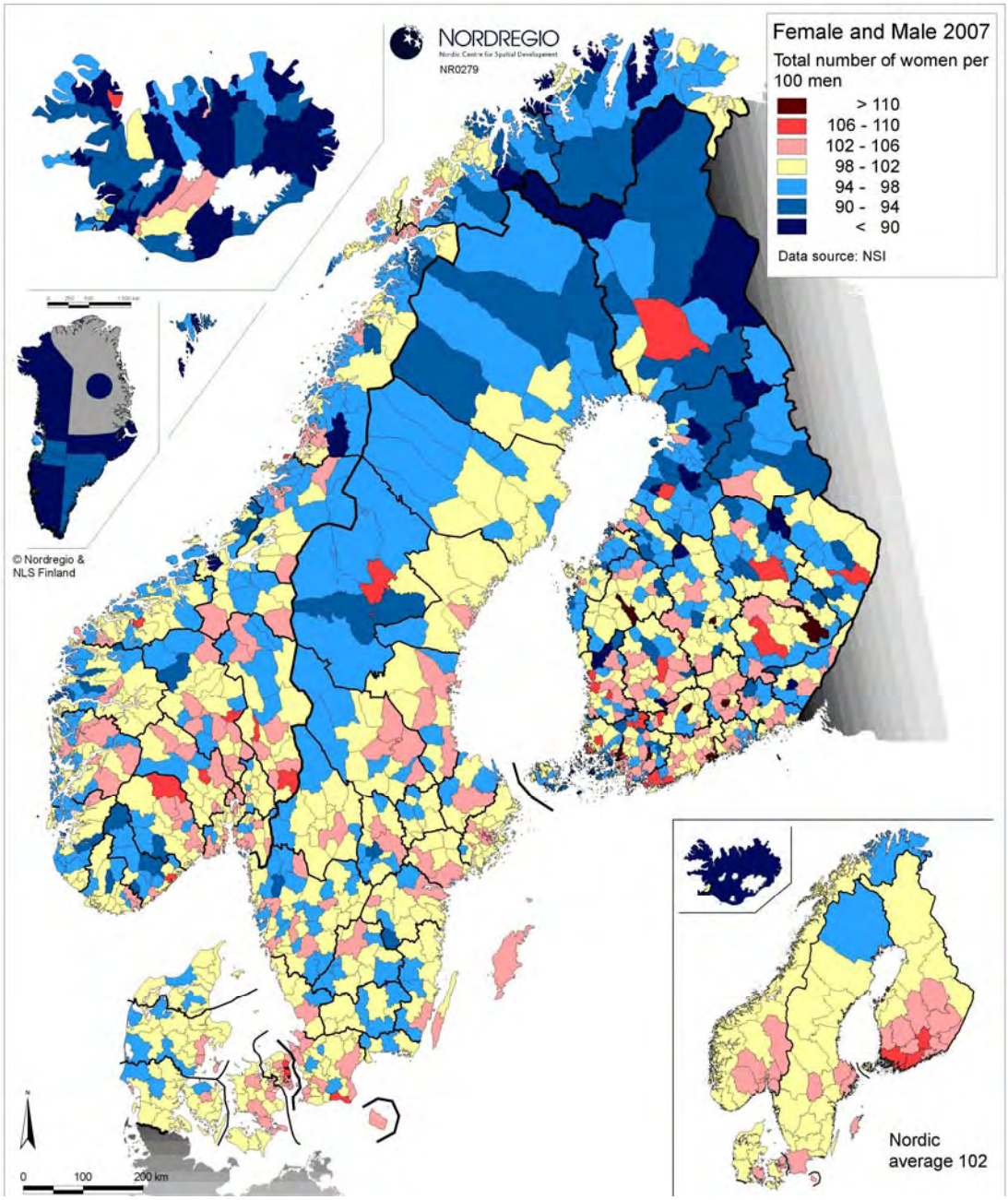

Figure 29: Gender distribution in municipalities

The yellow colour indicates municipalities with a balanced gender structure while the red colours indicate female surplus and blue colours a female deficit. The NSPA are characterised by a concentration of 'blue' municipalities.

The role of women in the "knowledge economy"

A key element in the concept of "Knowledge Economy" is the attainment of knowledge. Data on educational attainment make it obvious that women have shown a much better capacity to adapt to the knowledge economy than men during the last 10-15 years. Since the late 1990s women represent the majority of people with a higher education degree in practically all Nordic countries (Figure 30).

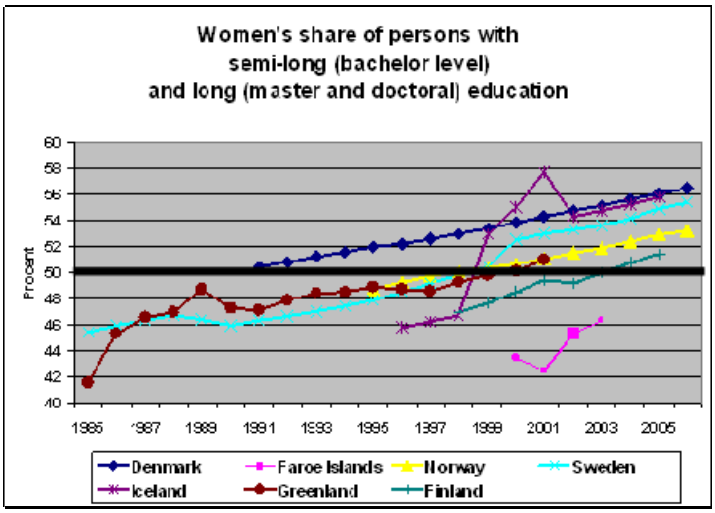

Figure 30: The majority of people with a higher education degree are women

The only reason for the Faroe Islands being an exception in this respect is that many women emigrate before they finalize their education, in order to pursue a career where they are able to take advantage of the skills and competencies they have acquired. Similar patterns can be found in parts of the NSPA where accessibility to education facilities are limited. Long term planning is therefore needed. As the consequences of the increasing number of women with higher education there are only very few municipalities where there is a majority of males with higher education. In most cases this has to do with the existence of specific activities with a predominantly male workforce, such as those related to the armed forces, to heavy industries and to resource extraction, or to the presence of a technical university.

Urban areas are generally characterised by a relatively higher level of persons with a higher education degree, partly due to the existence of one or more higher education institution. These centres are attracting both males and female. However, females are in general dominating, exceeding males with a few percentage points. A substantially higher level of dominance, i.e. a share of women among people with higher education degrees of 56% and more, appears in municipalities where the most of the population is concentrated in small towns or villages (Figure 31). This female predominance appears in spite of the fact that these are te very communities with the highest overall deficit of women (see Figure 29).

One of the major challenges for the NSPA is therefore to take advantage of the important resource represented by highly educated women, by adjusting their labour market accordingly.

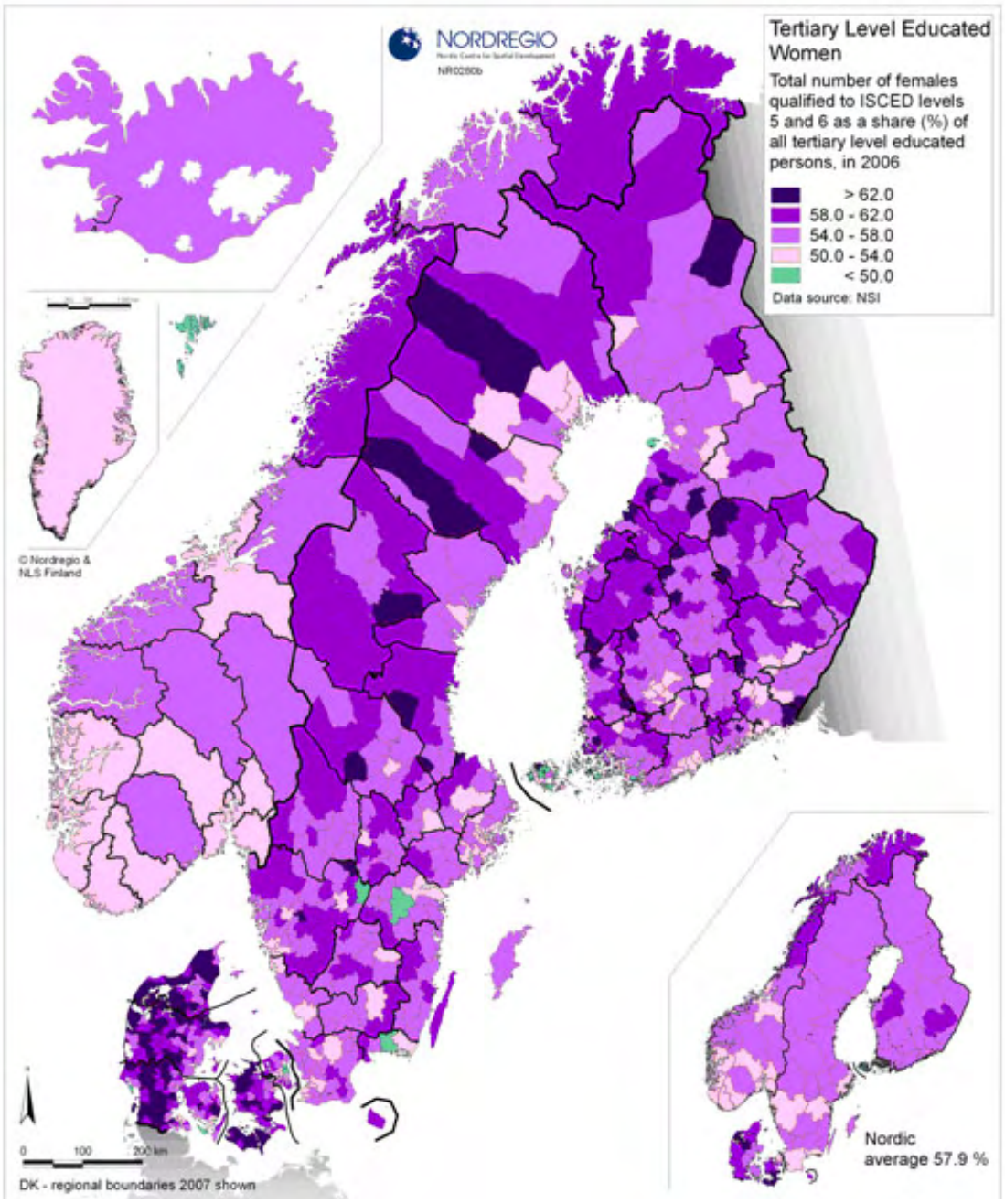

Figure 31: A large majority of persons with higher education are women in many NSPA municipalities

This map on the one hand shows the general predominance of women among people with higher education. In the NSPA, the high values observed are particularly striking, as they often coincide with municipalities with a predominantly male population (see Figure 29)

Gendered response to challenges

The relatively high number of women employed in the service sector has been argued to represent "an escape valve" away from the traditional rural structure based on primary sector activities which are highly mechanised and masculine, towards a new, more diversified socio-economic structure in which women participate and receive both a salary and social protection. These patterns can be seen as connected to a number of gender-related differences in aspirations and approaches to change.

One reason for which women are more able to adapt is hat they are socialized into collective activities, being attentive to other's needs. They consequently become much more open to change, and to the demands of an emerging knowledge economy. To use an analogy, males seem to be socialized into path-dependency, creating difficulties in accepting other paths and changes, while females tend to be socialized into situations where adjustment and change are required. This enables women to be more successful than men when moving to new job categories and job options, and when taking advantage of opportunities offered by the educational system in order to adjust to change.

This implies challenging the recurrent focus on traditional activities such as hunting, fishing, mining etc. – jobs only appealing to a certain group of males. It requires new initiatives offering opportunities to a group of well educated females and the new generation demanding cultural and economic diversity reflecting the fact the NSPA ought to be an active part in a globally shared culture and economy.

This also raises issues about the identity of the NSPA. The perception of customary male activities related to renewable resource exploitation as the economic base of the NSPA seems to be "sticky". The prevailing discourse around male professional identity in the NSPA has difficulties adapting to a changing economic context. While the primary sector used to be dominant, now only 5 to 20% of the economic activities are actually related to the primary sector in most regions. Instead the service sector dominates the economy, a situation to which women seem much more able to adjust. So instead of the stereotype of the NSPA region as dominated by male activities, a new type of economic framework is appearing. This requires adjustments from both planners and policy makers.

Industrial profiles and entrepreneurship in the NSPA

The NSPA regional economies, generally focussing on primary production and raw materials, have benefited from a very positive economic context over the past years. The observed economic patterns stand in contrast to prevailing ideas according to which the production of advanced and knowledge-based producer services would be the general key to improved economic performance. On the other hand, this industrial profile has increased the vulnerability of the regional economies. They are particularly exposed to fluctuations in the domestic and international markets, especially due to the reliance of individual local communities on a given type of resource. There is a general need to reflect more systematically on the specificities of NSPA economic development perspectives in relation to other parts of Europe, and on the socially and economically efficient ways of managing the major cyclical variations of NSPA economies.

A specific industrial profile in the NSPA?

The degree to which the NSPA have a specific industrial parts compared to other parts of Norden or Europe can be a relevant indicator of the need for a specific economic development policy in these regions. A general analysis based on employment (Figure 32) and production values (Figure 33) identifies a peripheral type of economies in Norway and Finland, but suggests that it concerns a considerably larger area than the NSPA, stretching south to Oppland and Sogn og Fjordane in Norway and to all of Finland except the southern strip from Helsinki to Turku. In the Swedish NSPA, a more contrasted regional pattern emerges, with different types of economic specificities in each region. The types observed in the Swedish NSPA can however also be found in more southern and densely parts of Norden.

The data demonstrate a certain over-representation of activities with high production values compared to the number of employees in a number of NSPA regions, particularly within energy supply, steel production, pulp and paper production and Fisheries. This confirms the idea that these are regions where wealth production is partly related to a number of capital intensive activities with relatively few employment opportunities. Here again, however, the data does not make it possible to conclude that the NSPA are in unique compared to other Nordic regions. This tends to suggest that the specificity of NSPA economies is not so much related to the structure of the economy, as to its geographic organisation with relatively small, isolated and specialised labour markets

Figure 32: Typology of regional economies on the basis of employment per branch

The classification groups regions according to the branches that are most overrepresented compared to Nordic average values, public and financial services having been excluded. In Norway and Finland, this analysis suggests that the 'peripheral' types of economies extend considerably wider than the NSPA. In the Swedish NSPA, a more contrasted regional pattern emerges, with different types of economic specificities in each region.

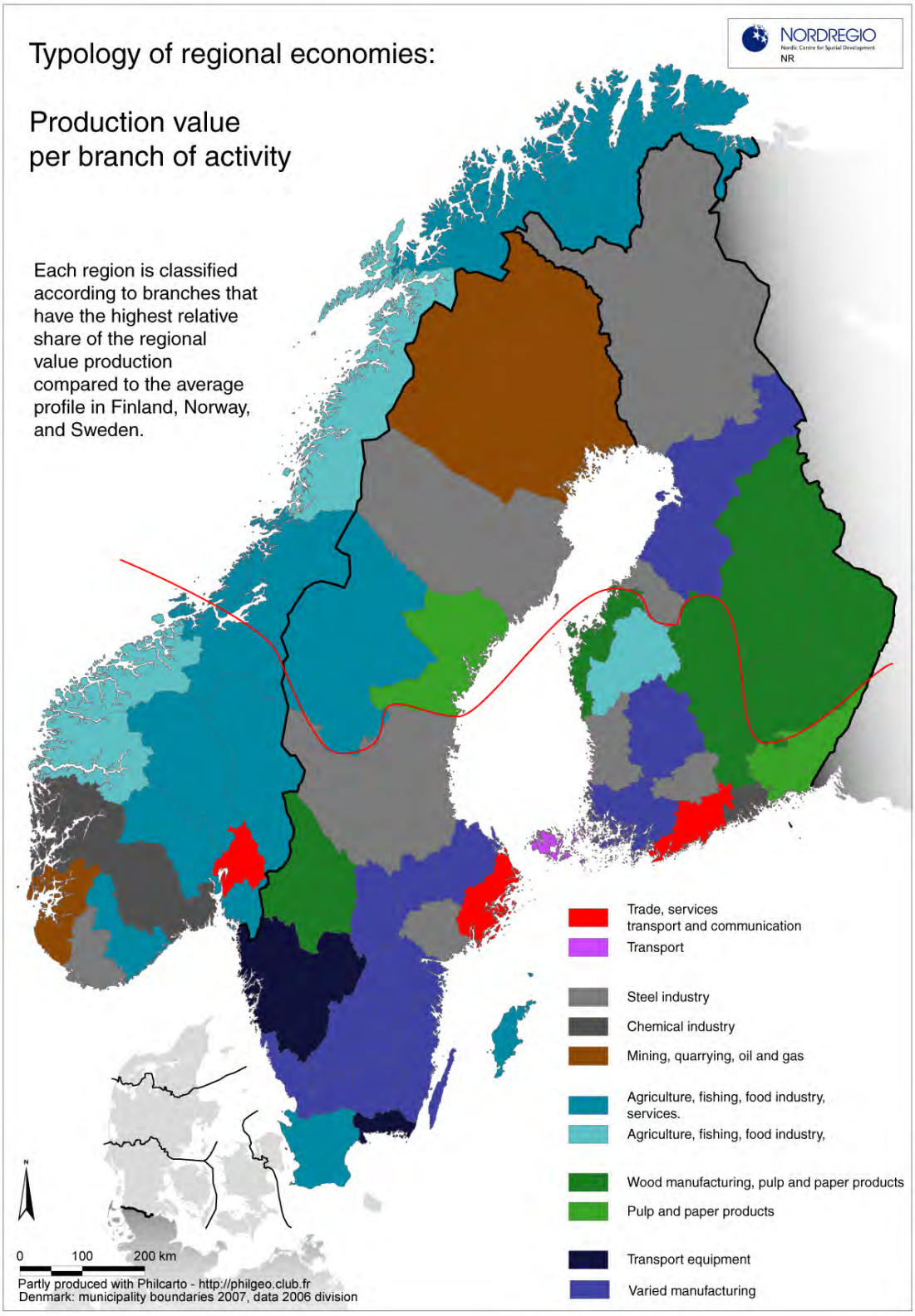

Figure 33: Typology of regional economies on the basis of production value per branch

While the classification is relatively similar to that obtained on the basis of employment figures in the Swedish, Norwegian and East-Finnish NSPA, manufacturing and steel appear as the main specificity in North Finland. The relatively larger importance of service production in the economy also appears more clearly in Nord-Trøndelag, Troms and Finnmark when one considers production value rather than employment.

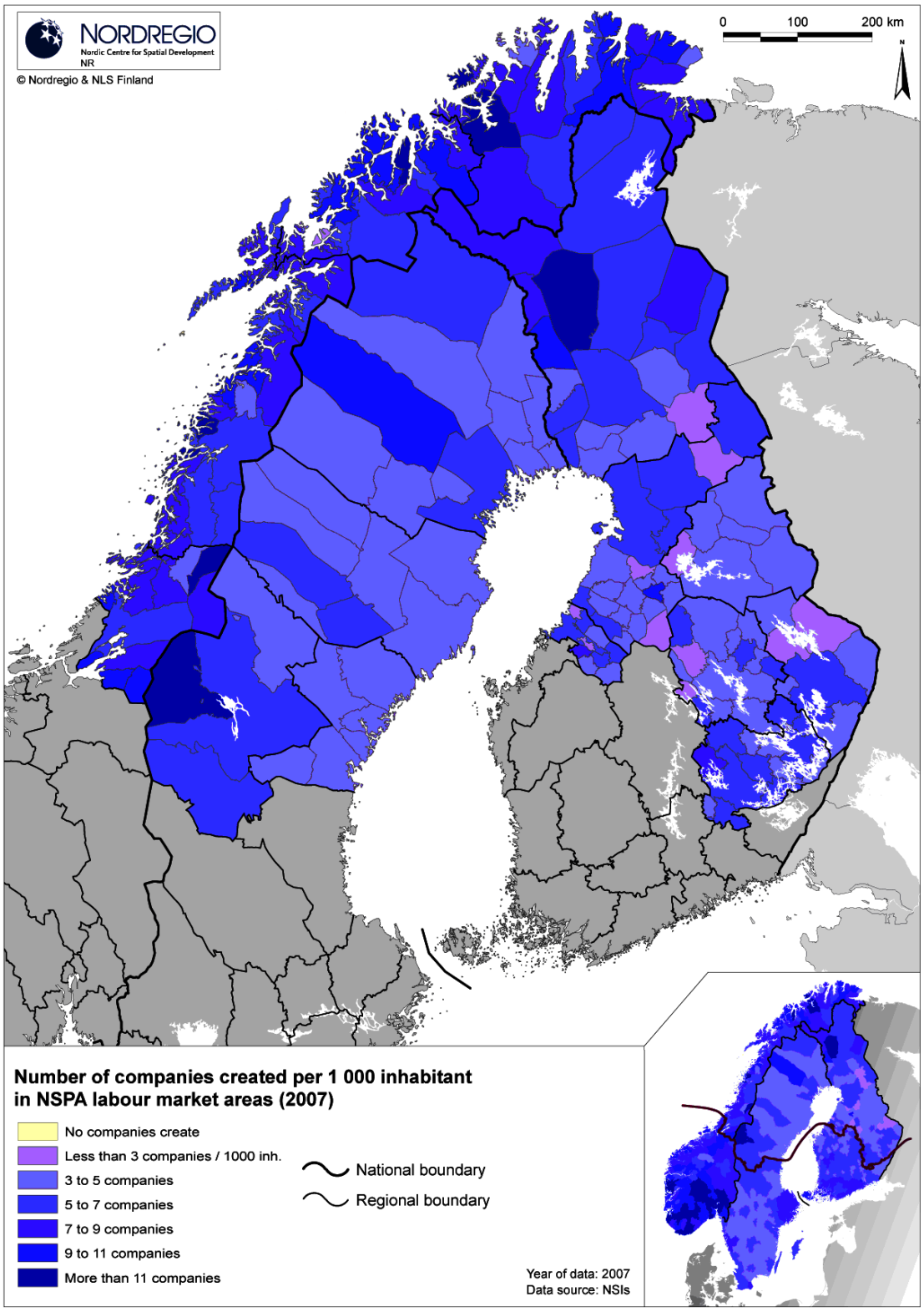

Figure 34: Number of companies created per 1 000 inhabitants

Large urban labour markets do not generally score higher than their smaller rural counterparts with regards to company creations per 1000 inhabitants. NSPA values are in line with the national average outside the capital region in Sweden and Finland, while they are markedly lower in Norway. The highest values can be found in municipalities with a strong tourism sector, such as Kittilä (Levi) (FI) and Åre (SE).

The importance of informal economy, seasonal activities and subsidiary sources of income in the NSPA

There are a lot of negative connotations connected to the informal sector or the informal economies such as: "Black Economy", "Hidden Economy", "Moonshine Work" etc., and many of these are reflecting the problems in formal rule and law based economies to accept activities which are more or less out of formal control. An important factor in this connection is the fact that these types of activities are spanning wide, from organized and random crime, through tax avoidance to simple subsistence activities. The negative connotations are therefore often reflecting the law-abiding citizen's reaction to what is considered activities not conforming to the legal and/or moral setting (Rasmussen, 2008)[12]. As is discussed below, however, this is a rather narrow interpretation of activities that might not only be individual or group based approaches to survival strategies, but also beneficial for societies in general. This is especially the case in small NSPA communities where general economic, social and institutional systems show their limits when it comes to allowing the inhabitants to develop a sustainable livelihood.

The definition

In the following discussion the definition of informal activities is not reflecting any moral positioning, but simply the fact that there are activities with economic implications that are not part of the formalized economic system. This includes economic transactions that:

- are not registerede by any formal authority,
- may involve a realised economic potential, with the exchange of money, or an unrealised one through a commodity exchange, gift giving etc.), and
- related to the extraction of renewable resource.

Consequently the informal economy – or the informal sector, as these two concepts are used interchangeably – is somewhere in between a subsistence economy (i.e. hunting and fishing for own or family consumption), and formal economy where products from hunting and fishing are sold to registered and registrating authorities.

The role of the informal sector

The informal sector is often described as creating a kind of linkage between the formal and the subsistence sectors. In NSPA rural areas, the distinctions between subsistence and cash-based economic sectors can be more or less artificial and meaningless, as the two sectors are thoroughly interwound. In small, isolated, communitnities there is not a labour market in the sense that the relations between employers and wage earners regulate the economy. This means that the rationality of economic actors is not the same as in areas were people can move from one branch of activity or employer to the other dependaning on wage levels. It is in this connection that the concept of informal economy becomes important, as it gives us the tools to understand why some communities continue to exist despite apparently weak economic performance (in the formal economy). In addition the question of the subsistence sector, and maybe even more than that, the informal sector and its economic implications are needed to be taken into account. In their report on the Economy of the North, considering an Arctic area that includes North Finland, North Norway and North Sweden, Glomsrød and Aslaksen[13] emphasize the different aspects of the Economy in the North, and how both subsistence and informal economic activities are essential in at least two aspects. On one hand in relation to

[12] . Rasmussen, R. O., 2008, Climate change, Informal economy and Generation and Gender response to changes. POENORD report, NORD (forthcoming).

[13] Gromsrød, S., and Aslaksen, I. (eds), 2006, The Economy of the North. Statistics Norway, Oslo.

coping with changes, where the informal sector may solve problems in relation to anomalies, unforeseen consequences etc., situations which – without the informal sector – would have caused social distress and eventually the only option of leaving the community. And on the other hand the role the informal sector in connection with the creating of "authentic" experiences for tourists, and thereby promoting new economic activities in this connection. Both aspects will be discussed further below, after a short discussion of the problems in valuing the informal economy. One can hypothesise that these types of analysis could also be valid in a range of small and isolated East Finland settlement, and thereby to the entire NSPA.

Coping with changes

As mentioned previously, the combination of subsistence and commercial wage activities provides the economic basis for the way of life in many rural communities. The informal sector acts as an economic lever, as the incomes generated through the informal market activities enable the operators when it comes to formal economic activities. It is therefore quite obvious that the subsistence sector in many situations becomes a crucial element in the contined existence of many of the smaller settlements. Some observers even note that the informal activities play an increasing role in many peripheral communities.

The informal economy can also help providing access to locally produced food in the communities. In cases where local shops are closing, this can partly compensate the negative consequences by providing local access to some of the staple foods. A general characteristic of the role of both subsistence and informal economy in the NSPA is a certain component of a "means of coping with crisis":

- The informal economy providing support to dwindling pension economies, especially in connection with the economic consequences of limited pensions, especially important in the NSPA where most people are depending on the public pensions very seldom supplemented by private pension arrangement.
- Adjusting anomalities in wage work arrangements, for instance in situations where full time employments are replaced by part time employment or no employment alternatives.
- Adjusting economic discrepancies in families and among relatives.
- Individual survival strategies or more collectively organized approaches to coping with crisis.
- Enables maintaining links to the formal economy for persons otherwise outside the formal sector, and thereby a redistribution of formal economies.
- Maintaining local production which may not be possible within a formal system due to regulations, monopolies and similar obstacles.
- Provides local products available and accessible for a larger audience, for instance in situations where the commercial value is low, but markets still exist.
- And in many situations providing the basic means of existence in otherwise condemned settlements.

The role of the informal economy in relation to tourism

Tourist seek a close relationship with one specific place or region, a feeling of "belonging" and an experience of "authenticity". Visitors who experience this type of proximity will even sometimes tend make this place or a region their regular destination, second home or even main place of abode. In this process, access to personal relations and especially informal services are not only a part of rural life, but also provide authenticity and connectivity between tourists/second home owners and the regular population.

The informal economy in a NSPA perspective

The informal economy is, in the settings described here, much more than what is usually though of when referring to "black economy". The informal economy in many ways seems to be a "problem solver", both in relation to risk and insecurity management. It makes it possible to establish links between households, and is a significant component of the economic livelihood for many communities.

Contrary to expectations, the informal economy is also increasingly important in connection with the development of tourism in rural and Northern communities. Tourists are not only expecting to get access to local produced handicrafts when visiting northern towns and villages. Meeting the craftsmen themselves, visiting the informal marketplace, seeing how the pieces are produced, how the fish is caught and dried – all these elements contributes to the sense of relating to the place in a way which becomes an increasingly important part of the touristic experience, and thereby becomes a major attraction.

The NSPA as a producer and recipient of innovation

One of the most important means used to induce structural change and meet the need to compete on the global market over the last decades has been the attempt to encourage the development of new solutions and thinking stimulating both societal and technological innovation.

The sparsely populated areas and the non metropolitan regions, including the NSPA, however face special challenges in respect of innovation. The potential limitations to the regional innovation performance have been analysed by referring to the notion of '*regional capacity*'. Regional capacity is a generic term to describe the range of factors enabling a region to be innovative, as for example universities or high schools, research centres, appropriate economic branches of activity, educational attainment of the inhabitants and the capacity to mobilise of networks. Beyond these measurable factors, there are however also some more intangible ones, such as the entrepreneurial culture.

European measures of innovation performance and potential tend to focus on technological innovation. Other types of innovation, related to organisational efficiency or incremental improvements of production processes within the companies, are less emphasised although they may have a greater impact on specific regional economies. The restrictive technological interpretation of innovation puts the focus on innovation as a result of advanced Research and Development processes. Typically, R&D expenditure per point of GDP is being put forward as one of the key indicators for measuring innovation in the regions.

Regional disparities are highlighted when data for R&D expenditure and performing sector 2005 are displayed. In the EU, the 'Barcelona objective' implies that at least 3 percent of GDP should be spent on R&D. The Nordic countries perform well in this regard, with figures exceeding those of the USA and equivalent to those observed in Japan. As illustrated by Figure 35, these high shares of R&D expenditure are mainly concentrated in the metropolitan regions, many of which belong to the European regions with the largest share of R&D expenditures in their regional GDP. However, even NSPA regions such as North Finland, Övre Norrland (Västerbotten and Norbotten), North Norway and Trøndelag have share of R&D expenditures levels that are comparable to the ones of regions of the most central parts of Europe.

Yet, the measurement of such indicators at the NUTS2 level makes little sense for the Nordic countries in general and the NSPA in particular: the relatively thinly populated Norden gets NUTS2 regions that cover several regional administrative units. Consequently, important intra-national disparities are smoothed out because more rural areas are merged with more populated ones. For instance the coastal-inland or the metropolitan-rural dichotomies do not show on these types of maps. Finally, NUTS2 regions in Norden do not have any administrative or policy legitimacy as they often are constituted of several regional administrative authorities. Yet, innovation policy is one of the key ingredients of the Nordic regional development plans. Consequently, one needs to go a bit deeper in order to understand the challenges of Nordic regions when it comes to innovation potential.

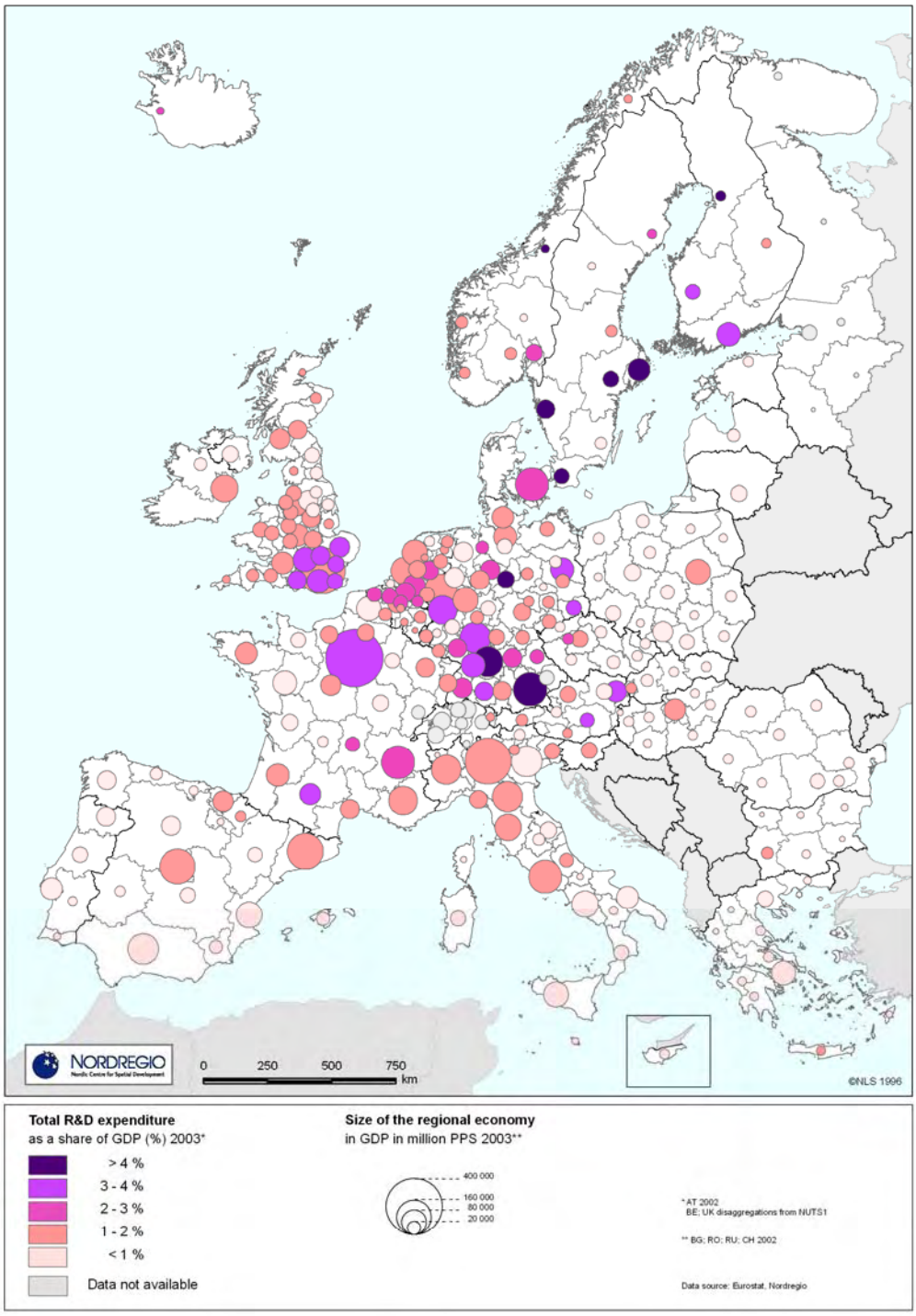

Figure 35: Regional R&D expenditures: small amounts, but relatively high intensity in many regions

At NUTS 2 level, Trøndelag, North Finland and Norrbotten have the proportions of R&D expenditure that are among the highest in Europe.

Marked differences in R&D expenditure levels indeed become visible if one goes down to the level of maakunta, fylke or län (NUTS 3) (figure 36). The quantitative target of 3% of R&D expenditures in the regional GDP is only met by 3 NSPA regions out of 14. From an NSPA point of view, even this geographical scale figure is however inadequate, it does not show the territorial disparities between the regional centres and the rest of the territory. Indeed, the weight of Oulu, Umeå and Tromsø in the R&D expenditures of respectively North Ostrobothnia, Västerbotten and Troms in overwhelming. The relevance of this locally intense R&D activity for the regions as a whole remains to be verified. Inversely, there is no reason to believe that the R&D environments present in Trondheim would be less beneficial to the NSPA region North Trøndelag than to South Trøndelag.

This material therefore makes it obvious that innovation should be analysed at a detailed geographical scale, and as a process resulting from networks and interrelations rather than as the mechanical outcome of R&D activity within a region. Efficient innovation processes stem from the close co-operation between different types of regional actors, i.e. research institutions (Universities, but also national agencies or private research companies), the economic structure (existing companies) and public authorities (regions, municipalities,…).

In this regard, it is also important to note that private actors undertake the major part of the Nordic R&D effort. The public sector stands for only slightly more than 30 percent of the expenditure outlay. Furthermore public R&D is mainly conducted at the universities. Norway does however have a comparably large public R&D sector. The overall Nordic financing mix of R&D is comparable to that of other leading industrialized nations such as the USA, Canada or Japan but more business-orientated than in the EU25 in general. The fact that Nordic innovation systems are highly financed by the private sector makes the link between regional innovation and the regional economic structure even higher. However, large corporate structures tend to relocate their R&D activities away from more peripheral production plants, and to concentrate them in metropolitan areas. Highlighting the advantages of maintaining some R&D functions closer to production plants, were day-to-day interaction with the production processes is possible, is therefore an important challenge for the NSPA.

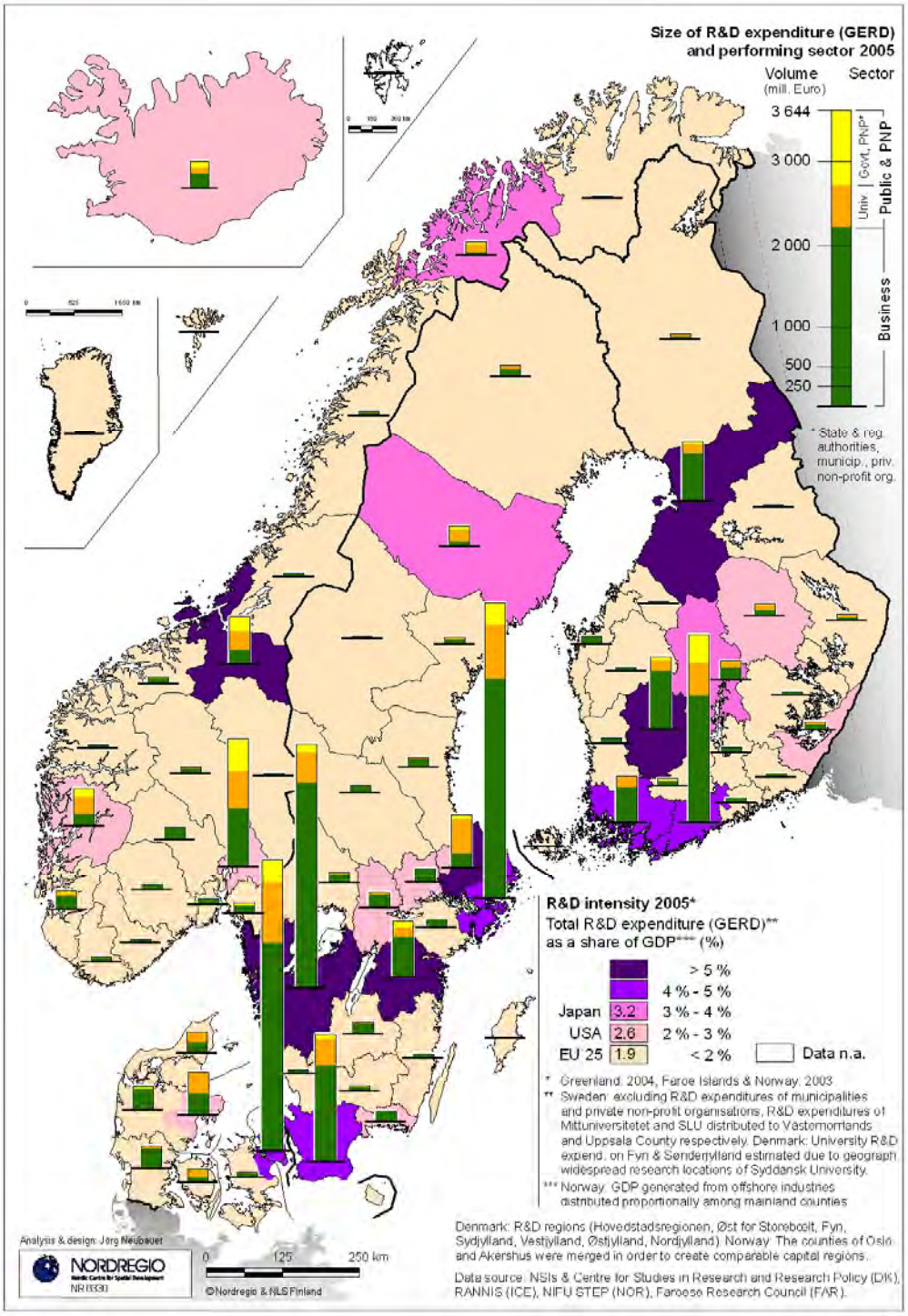

Figure 36: R&D expenditure and performing sector 2005

The quantitative target of 3% of R&D expenditures in the regional GDP is only met by 3 NSPA regions out of 14.

Research environments in the NSPA

Research environments are increasingly seen in regional strategies as a way forward in order to bolster innovation processes within their boundaries. The research environments in the NSPA bear two different understandings. First of all, it is related to the presence of universities and research institutions and their specific thematic focus, being natural sciences, physics or social sciences. Second, it is related to the impact that these research facilities on the wider society, attracting well-educated people to the region, and maintaining the well-educated autochthones, by improving the image of the city or region as an attractive place for living.

Figure 37 shows the correlation between the presence of the Nordic universities which are well ranked in worldwide, European and national comparisons and the proportion of inhabitants having a rather advanced education (tertiary level). Not surprisingly, the map specifically highlights the capital and largest metropolitan regions of the Nordic countries. In the NSPA, only one university, Umeå, is ranked in the top-500 of European universities. The other main universities located in the NSPA (Oulu, Sundsvall, Joensuu…) have a more national dimension.

However, this does not imply that the population of NSPA regions generally has a lower proportion of persons with tertiary education. Indeed, education attainment in Northern Sweden and Norway is higher than in more central and southern regions of their respective countries. Only in Finnish Lapland and in Eastern Finland does one find educational attainments that are below the national levels. These however remain in line with those found in the Swedish and Norwegian NSPA.

The importance of research institutions for regional development stems from the expected spin off effects that research and researchers may have for the surrounding local economies. This functions in two directions. First of all, researchers may decide to become entrepreneurs by setting up a company commercially exploiting the results of their research. Having both hats as researcher and entrepreneur, they will most likely set up their company in the close vicinity to the university and thus enrich the local economy. Second, universities provide a dynamic research environment when their field of R&D is connected to the business activities of the local or regional companies. In that respect, companies are able to directly use innovation stemming from research in order to increase their international competitiveness. Figure 38 provides an overview of the NSPA research institutions and their related domain of expertise.

One first remark concerning figure 38 is that the research environment in the NSPA goes well beyond the large universities as identified in figures 37. If universities act as large, multi-disciplinary 'R&D hubs' for the region, the location of smaller, but more specialised, research institutions across the region supplements its overall research potential. For instance, in Finland, many small institutions are dedicated to environmental research. The three different countries show rather different patterns: contrary to the situation in Norway and Finland, Swedish research institutions are more concentrated to the coastal areas, with the notable exception of Östersund and Kiruna.

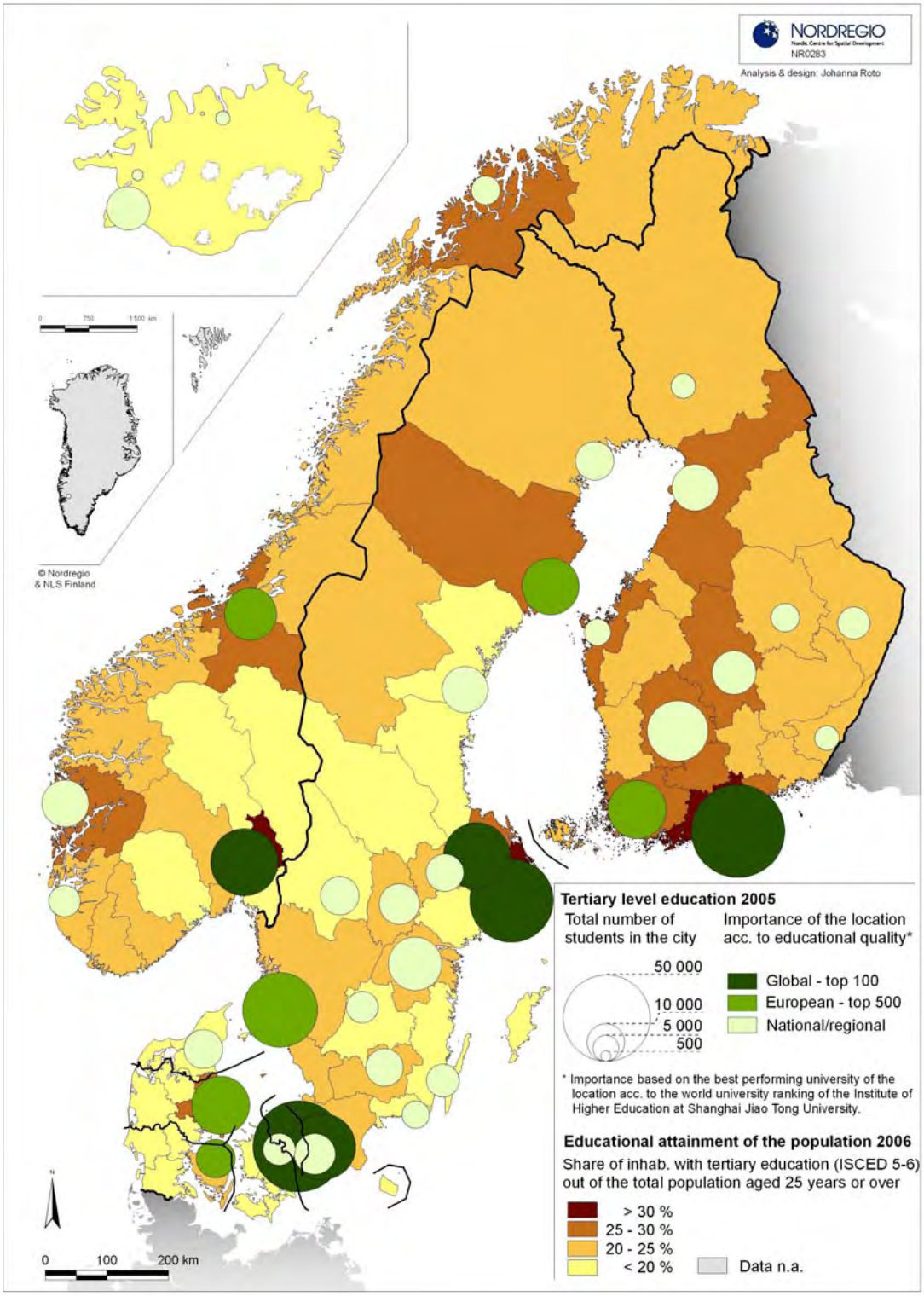

Figure 37: Tertiary level education and educational attainment of the population

The large number of universities in the NSPA, considering the population of the area, reflects proactive public policies. Multicampus universities such as Mittuniversitetet (Sundsvall, Östersund, Härnösand) create an access to higher education which is even better than suggested by this map. The question is however to what extent these various universities can develop into European centres of excellence within specific fields of expertise of relevance for local communities.

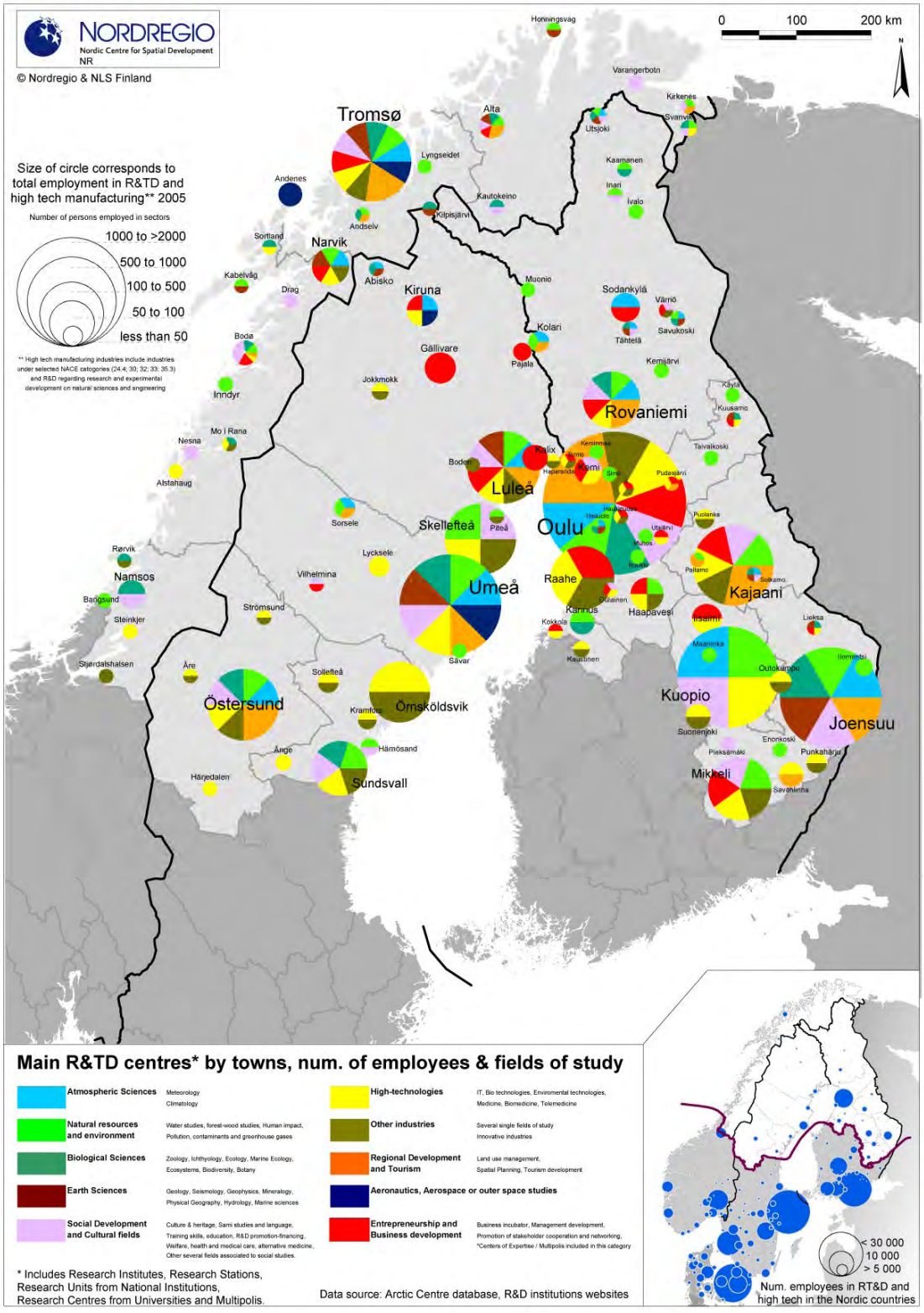

Figure 38: R&D institutions and associated research fields in the NSPA

This map shows the number of identified research institution in each town or city, and their main fields of expertise. It shows that there are large numbers of geographically dispersed institutions in the NSPA. A further investigation of R&D activities within private firms would probably identify even larger numbers of research centres.

Different types of geographic contexts in the NSPA

The role of cities in the NSPA

We have previously noted the rapid concentration of population to larger labour markets in the NSPA. This reorganisation of the regional population is a far greater challenge for the concerned regions, than their overall demographic deficit. At the level of settlements, this intraregional demographic concentration can be confirmed and nuanced. As illustrated by Figure 29, few settlements at more than 45 minutes from a city or town of more than 10,000 inhabitants (i.e. outside the dark green areas) are growing. The largest number of exceptions in this regard can be found along the Norwegian coast, where pro-active public policies to preserve settlement patterns combined with economic activities related to the sea and an improved transport accessibility with the regular visits from the coastal express have created different conditions. Overall, however, the figures demonstrate how transnational economic integration combined with increased individual expectation with regards to service provision and modern amenities leads to a situation where it is increasingly difficult for small isolated settlements to attract and maintain the population.

This, however, does not mean that only the largest settlements grow. A number of smaller settlements close to larger towns or cities successfully experience a positive demographic development. The relevant level of planning is therefore neither settlements, municipalities nor current labour market areas, but accessibility areas as illustrated in Figure 29.

Practically continuous patterns of areas accessible within 45 minutes from a city or town of more than 10,000 inhabitants can be observed in East Finland as well along the entire Baltic arc from Sundsvall to Kokkola. Throughout these areas, all settlements can theoretically develop on the basis of commuting to a nearby town or city. The relative proximity between neighbouring urban centres also makes it possible to envisage a further integration between neighbouring towns or cities through improved transport infrastructure, as is for example currently being done between Sundsvall and Umeå through the Bothnia railway. European territorial development principles such as polycentricity may consequently be usefully applied in these areas, promoting better integration and cooperation between neighbouring towns and cities as a principle for more balanced growth.

A second category of spaces is constituted of more isolated urban influence areas, such as around Rovaniemi, Kuusamo, Kiruna and Östersund, as well as Alta, Tromsø, Harstad/Narvik, Bodø and Mo i Rana along the Norwegian coast. These areas have the minimal demographic mass needed to offer a certain range of services and some flexibility in the labour market. These centre points, Kiruna excepted, are all growing and stimulate an increase in population in some surrounding settlements. Geographic distances however make it difficult to envisage any further functional integration between these towns and cities, except possibly through a development of their function as potential regional air hubs. This has so far only been the case in Norway (see Figure 39). The area between Steinkjer, Levanger and Stjørdal is in a special position due to its position in the continuity if the Trondheim influence area.

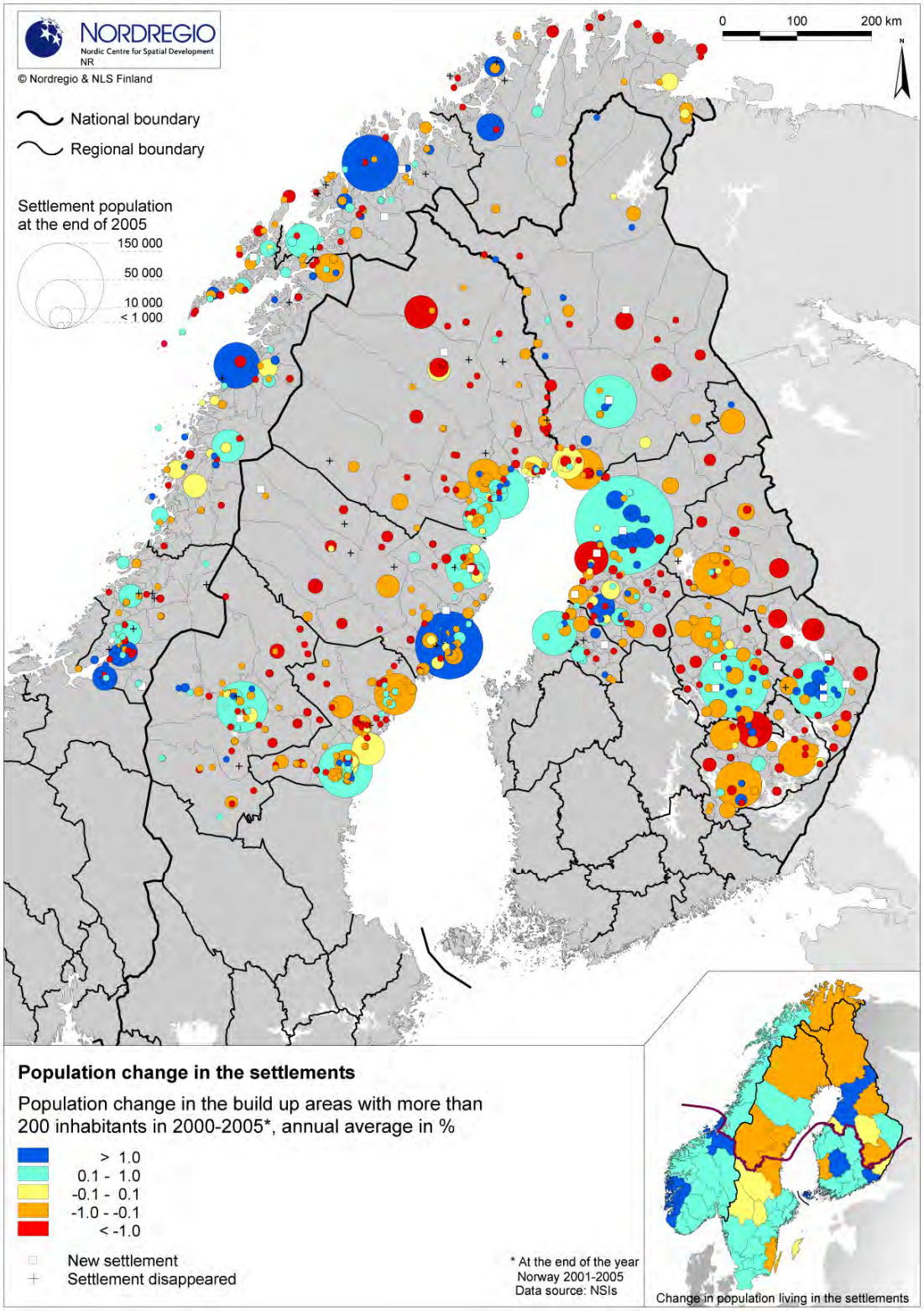

Figure 39: Change in population in NSPA settlements

Settlements, defined as groups of houses with a total population of more than 200 inhabitants, are the finest geographic level at which we can observe demographic changes. They provide a detailed picture of how the population is reorganising within the regions. This shows the relevance of labour market areas, as most growing smaller settlement are situated within commuting distance of larger towns and cities. The few exceptions concern tourism areas (e.g. Levi, Åre) and some coastal communities in Norway.

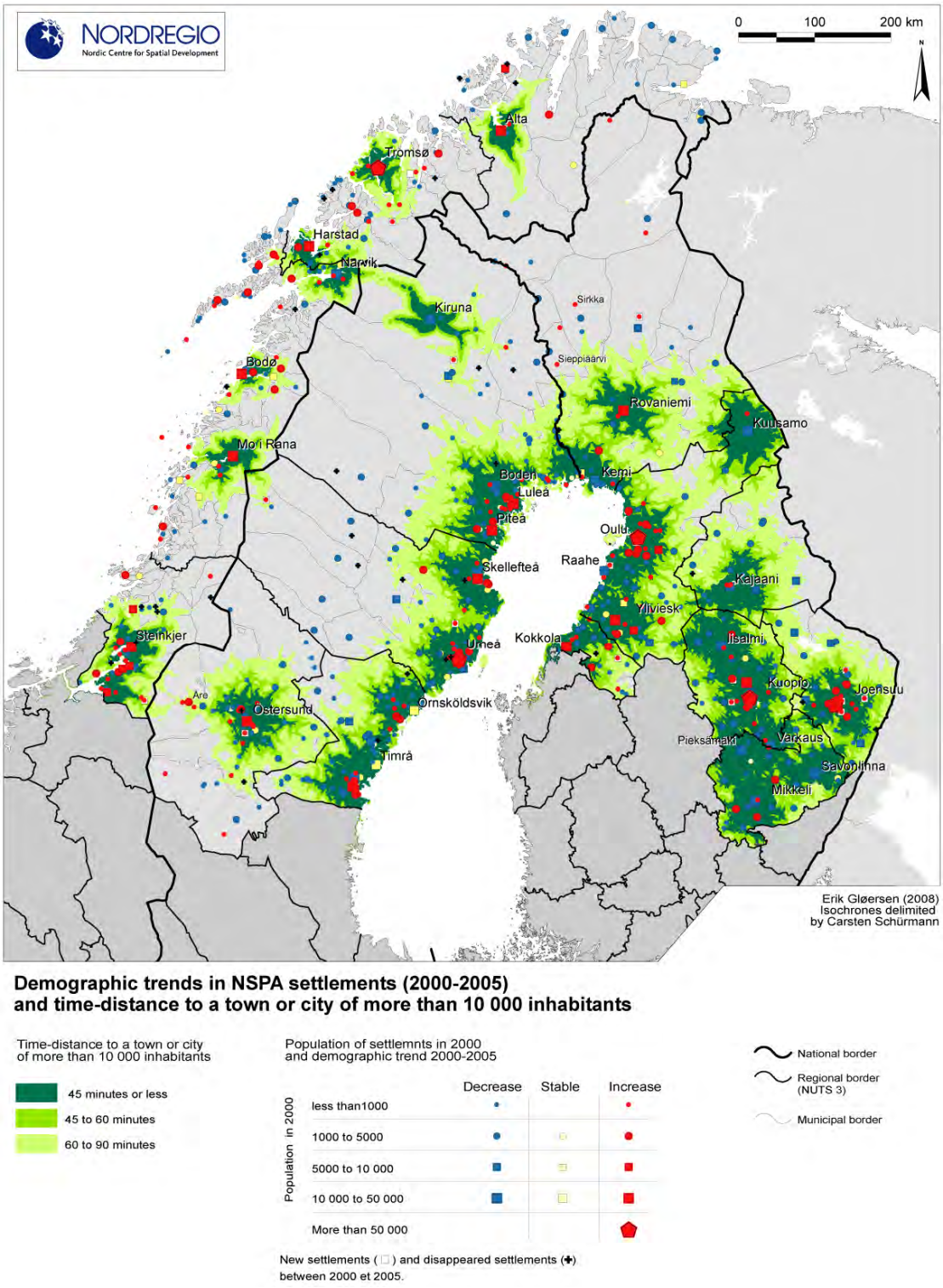

Figure 40: The urban and rural NSPA

Even smaller settlement within reach of towns or cities of some size (here, 10 000 inhabitants) may rely on the commuting possibilities and service provision of this wider functional area for in their development strategies. The situation is quite different outside of these areas, which tends to suggest that there are different types of NSPA areas, with very different preconditions for growth and development.

The third type of spaces is constituted of the vast areas beyond the influence of cities or towns of more than 10,000 inhabitants. In these areas, most settlement are losing population at a more or less rapid pace, making it necessary to envisage either a controlled depopulation, or an alternative type of development strategy. It is highly unlikely that these areas can have a long term sustainable development based on the principles of market regulations of the economic activity only.

Overall, this suggests a division of the NSPA in three types of spaces with regards to urban infrastructures, each of which require specific types of analytical approaches and strategies

Rural lifestyles in an NSPA perspective

The array of different local development trajectories results in a situation where there is an increasing range of 'rural ways of life'. In rural areas with many amenities, there has been an important shift towards recreation based economies and commercial tourism, based upon what is still perceived of as an abundance of local natural resources. An important aspect of this new rural development strategy is the extensive development of a seasonal housing market. The question is how the NSPA relate to these trends, as the number of people living in towns and cities susceptible of having a recreating dwelling or seasonal home is smaller, and as the distances in the rural parts are much longer.

This issue is important, as lifestyle choices have an important impacy on interactions between various parts of the rural populations. Lifestyle is considered as a collective and new set of meanings, practices and places. One of the most important motivations behind the second home preferences is personal choice, often with an ambition to enjoy the best of the urban and rural worlds[14]. The choices made refer typically to escape or pleasure, but second homes appear to construct life more and more as complementary to people's primary home lives, which are equally rich and diverse. This focuses the attention to spatial mobility between two or more places that people deem attractive at the moment; i.e. the elements of attraction, representations, instead of focusing on for instance housing in the countryside. Thus, in this context, the urban and rural are not seen as opposites but more as complementary elements in unique lifestyles.

In this context the NSPA may be considered as attractive regions not only from urban dwellers of these regions, but also for residents of south Scandinvian urban areas with a special attachment to specific localities, e.g. through family history or relations of kinship. The new lifestyles that may develop as a result of this may in turn lead to different opportunities and demands being put on the NSPA. New possibilities for rural economies create a new social, economic and also political settings and activities. It is sometime argued that second home demand adds to the process of out-migration from rural communities by displacing the permanent residents, but research by Marjavaara in small island communities in Sweden shows that not only does migrating individuals experience improved situations, but the second home activities adds to the economic performance of the communities.

A key question in this connection is the small business and the promotion of entrepreneurship on grass-root level, ensuring that entrepreneurs are attracted to the rural areas. Studies among entrepreneurs in rural areas show that men mainly produce both goods and services, while women mostly start service enterprises. The exclusion of the service sector

[14] Marjavaara, R. (2007), "Route to Destruction? Second Home Tourism in Small Island Communities", Island Studies Journal vol. 2 no.1, 27-46.

as eligible for grants to entrepreneurs in rural areas excluded many women initiatives, but this has changed, and women are now prioritised for grants to entrepreneurial purposes. Consequently, the number of female entrepreneurs has increased considerably. In Norway, for instance, 24% of all self-employed persons are now women. (Spilling and Berg, 1998[15]), and changes in State and Regional Development rules for grants in Norway resulted in an increase of women among grant receivers from 20 to 40 %.

Sami population and reindeer herding traditions

Rural parts of northernmost Europe are also the traditional living areas of the Saamis, the only indigenous peoples of European Union. The Saami population is traditionally spread out over a large territory, from the central part of Norway and Sweden to the northern parts of Finland and the Kola Peninsula in Russia. This region is called Sápmi, Saameland (see Figure 1). There are approximately 75 000 Saamis in the four countries cited above: More than 40 000 in Norway, between 15 000 – 25 000 in Sweden, 7 000 in Finland and 2 000 in Russia. The Saamis have their own language (or languages because the dialects are rather distinct), culture and organizations. The main cooperative body for the Saamis is Saami Council and each of the Nordic countries is also having their Saami parliament to take care of Saami issues. Traditionally the main economical activities were reindeer herding, fishing, hunting and handicraft production. Today tourism has also become a significant source of income in Sápmi. Even reindeer herding has always included just a part of Saami people it's still seen as a main Saami livelihood and in Norway and Sweden the Saamis have the exclusive privilege of herding.

Reindeer herding is regarded as central for the viability and maintenance of the Saami culture in many Saami areas. In Norway and Sweden the Saamis have the exclusive privilege of herding. Two main extern challenges for reindeer herding are resource management and climate change. According to the Finnish ministry of Agriculture and Forestry[16] there are four distinct dimensions to the conflicts surrounding resource management and reindeer herding: Firstly, the question of land ownership between the Saamis and state and other actors has given rise to numerous legal disputes. Secondly, nature conservation dimension of reindeer herding is often mentioned, as most of reindeer pastures are defined as conservation areas. Thirdly, the economical viability of reindeer herding is questioned, considering the low market value of the meat and the rising production costs. Finally, the possibility of combining reindeer herding with other types of land use, especially forestry, is being considered. This issue is particularly high on the agenda in Finland and Sweden. One issue is for example that commercial forests lack slow growing horsehair lichen, which is crucial for reindeers in the winter time. In Nellim in northernmost Finland, a legal dispute between forestry companies and reindeer herding which started in 2005 has now been raised in front of the United Nation's Human Rights Committee. The objective for the NSPA must be identify the best way of balancing the economic, cultural and social dimensions of different types of land uses in the rural parts of the NSPA.

The second main challenge is the potential impacts of climate and environmental change. Changes in natural environment have been regognized both in weather and snow conditions and in animals and plants. Three possible climate related challenges for reindeer herding have been identified[17]:

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[15] Spilling, O. & N. Berg (1998) Gender and small business management: the case of Norway in the 1990s. Paper for the RENT XII conference (November).

[16] Ministry of Agriculture and Forestry (2003). *Ylä-Lapin metsä- ja porotalouden yhteensovittamista koskeva toimintaohjelma* - programme paper, 15 s.

[17] Helle, Timo (2006) "Poronhoito ja muuttuva ilmasto" in Nikula, Ari & Varmola, Martti (ed.).

- Increasing precipitations in winter time, thicker snow coverage making it harder to reindeers to get food.
- Warmer weather during winters leads to more frequent successions of thawing and icing and higher risk of ice. Ice in top of the snow coverage makes for reindeers to get food, except in old forests where the ice makes It easier to collect horsehair lichen from trees.
- Increasing temperature in summer time increases also the number of mosquitoes. This affects in general reindeers' condition.

However, a possible positive effect is that a shorter snow period would make it easier for reindeer to get food.

Ilmastonmuutos Lapissa – näkyvätkö muutokset – sopeutuuko luonto? Working Papers of the Finnish Forest Research Institute 25. 58 p. http://www.metla.fi/julkaisut/workingpapers/2006/mwp025.htm

What infrastructure strategies do the NSPA need?

At the European level, 'accessibity maps' have frequently been used as an illustration of core-periphery patterns in Europe. There is a long tradition for these representations, going back to the Keeble reports in the 1980s. From a Nordic point of view, such maps confirm the unique position of north Nordic Regions (Figure 43). It is tempting to conclude from this that they constitute a factual underpinning for demands to improve core-periphery infrastructure, so as to reduce the extent of core periphery patterns. The paradox is however those radial connections would increase the relative contrasts between core and periphery, rather than reducing them. Indeed, such infrastructure mechanically increases the accessibility of core areas more than that of the periphery.

While Trans-European Networks, conceived as transnational links connecting all European regions in a predominantly radial pattern are part of the European integration agenda, they therefore do not necessarily constitute an appropriate answer to north-Nordic challenges in terms of accessibility. The relative absence of transnational TEN in north-Nordic regions does not need to be problem, insofar as the primary accessibility challenges are found within region and between neighbouring regions. A TEN axis connecting the NSPA to Europe would however have an important symbolic value, and would certainly facilitate some industrial development. The risk is however that this would turn attention away from other regional transport issues.

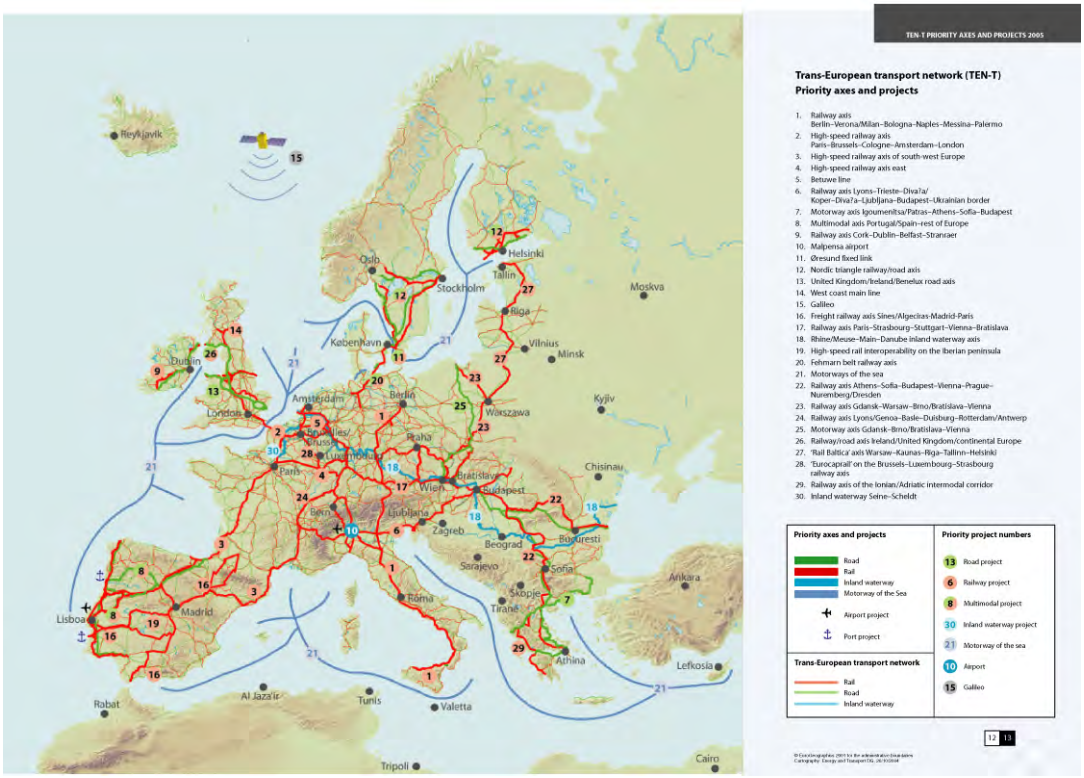

Figure 41: The absence of Trans-European Transport Networks in the NSPA
What regional impacts would be expected of an inclusion of major NSPA transport axes in the TEN-T scheme?

While the importance of transport subsidies is undeniable from the point of view of individual companies, and in preserving existing jobs, the overall impact on regional economic performance remains difficult to quantify. The 2004 Cap Gemini evaluation of the transport aid system in Sweden, which is supposed to compensate for long distances, concludes that it "*does not stimulate economic conversion to new or service-oriented sectors of activity, that it does not lead to the creation of new companies and is not perceived as compensating for the deficiencies of the infrastructure of for the lack of competition in the transport sector*".

Furthermore, it is logically impossible to quantify the relative disadvantages faced by northern Nordic industries as compared to similar activities in other parts of Europe. The industries that do develop in these areas are indeed naturally ones that are less sensitive to distance to markets. Attempts to assess the impact of distance on the geography of international trade however conclude that there is little evidence to support the 'additional cost' assumption.

This does not imply that the NSPA does not have specific issues with regards to transport. Industries in North Nordic regions indeed experience problems of network congestion (bottlenecks), low reliability (due to the climate, and to the lack of alternatives when a problem occurs) and unsatisfactory handling and distribution services (high costs, no possibility of next day delivery). These industrial needs remain to be identified carefully throughout the NSPA.

A number of initiatives have also been proposed to develop alternatives to the traditionally predominant north-south axis in the NSPA. Figure 42 illustrates some important cooperation projects, namely the Barents Link from Narvik to Russia via Luleå and Kainuu, The Via Baltica from Nordland and Västerbotten to Poland, and the North-East Cargo Link from Trøndelag to Russia via Savo and North Carelia. These links have developed different forms of institutional connections and cooperation throughout the past INTERREG programming periods. The question is however how they could on the long term be incorporated in a coherent transport strategy for the NSPA, as they develop alternative priorities which are unlikely to be developed in parallel.

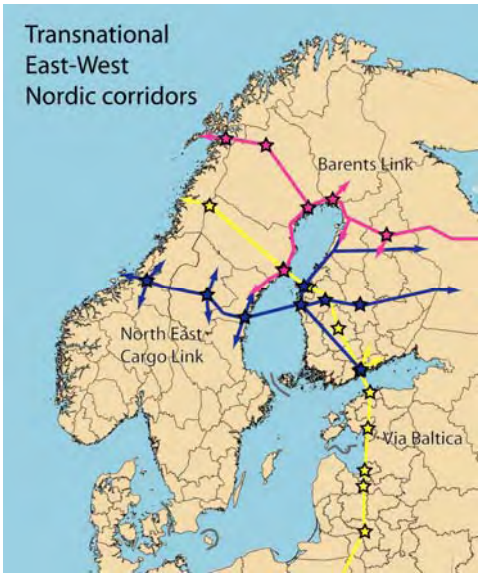

Figure 42: Transnational East-West corridors in the NSPA

These transnational cooperation projects partly expressing competing visions on how to develop transversal axes in the NSPA, which may in the long run cancel each other and favour a further development of north-south axes. It is therefore important to consider whether a more coherent approach can be developed.

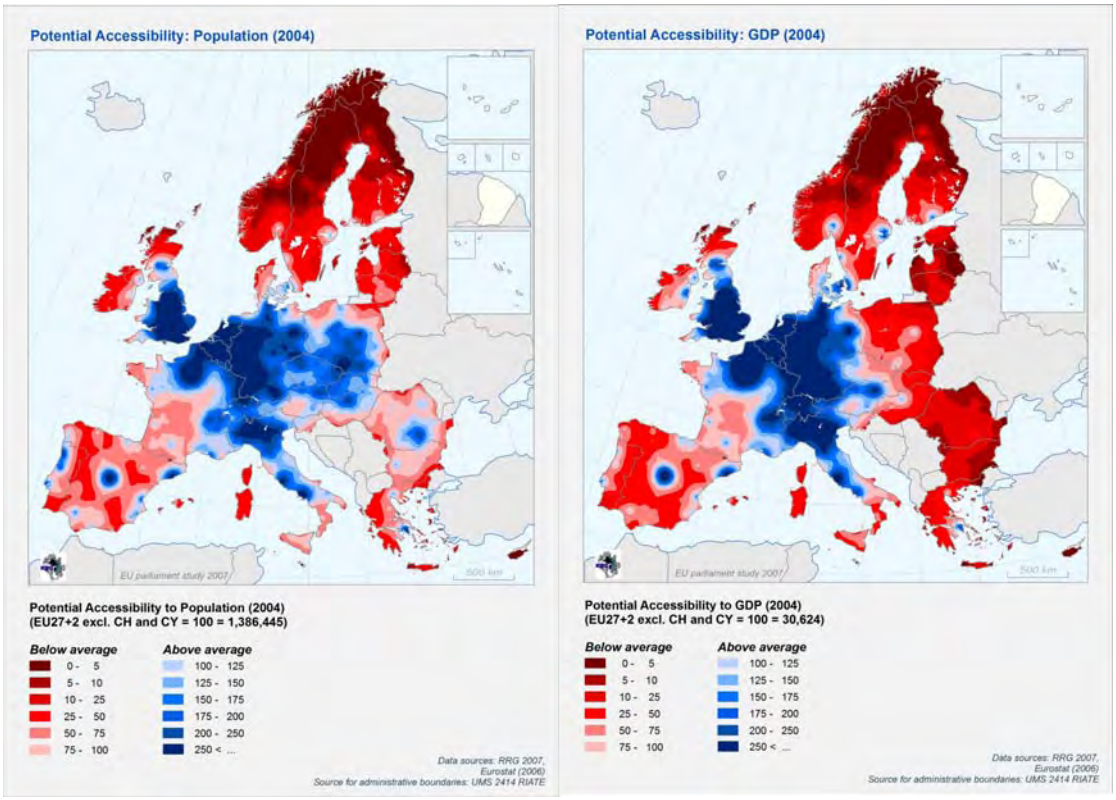

Figure 43: Potential accessibility to population and GDP by road

Measures of potential accessibility to population (left) and to GDP (right) are used as an illustration of the peripherality of the NSPA. It is however not established that distance to markets constitutes a significant competitive disadvantage or reduces the potential for regional economic development, as illustrated by the presence of North-American or south-east Asian producers on European markets. The question is also what types of accessibility are relevant for the NSPA. The present map considers road transport and destinations in EU 27 + 2 only.

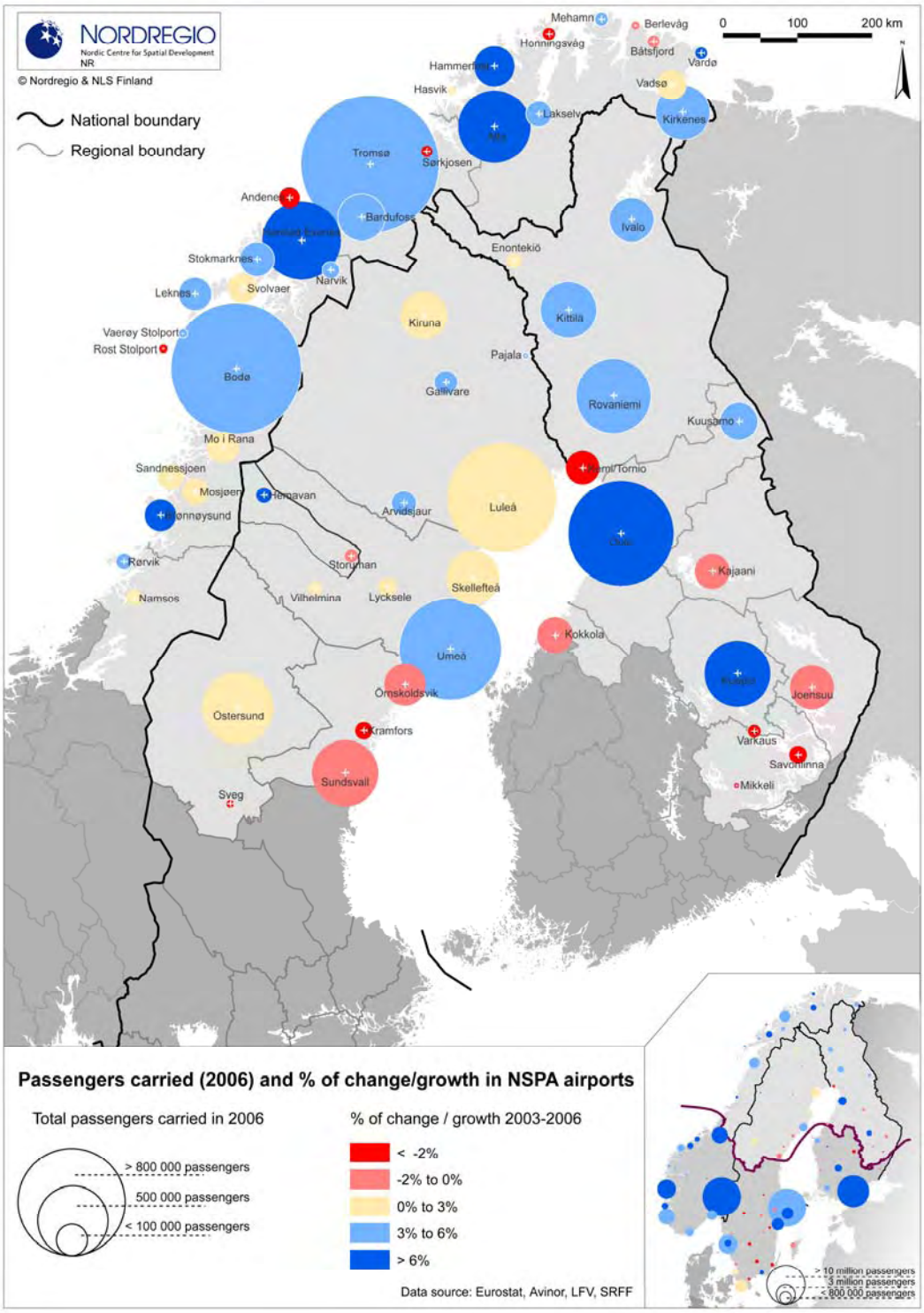

Figure 44: Airport passenger traffic volume (2006) and recent evolution (2003-2006)

A concentration of traffic to a wide selection of main airport: The traffic increase in the majority of major Northern airports stands in contrast to decreases observed in Sundsvall, Övik, Joensuu, Kokola, Kemi/Torneå and in the smaller airports of Etelä Savo and southern Sweden.

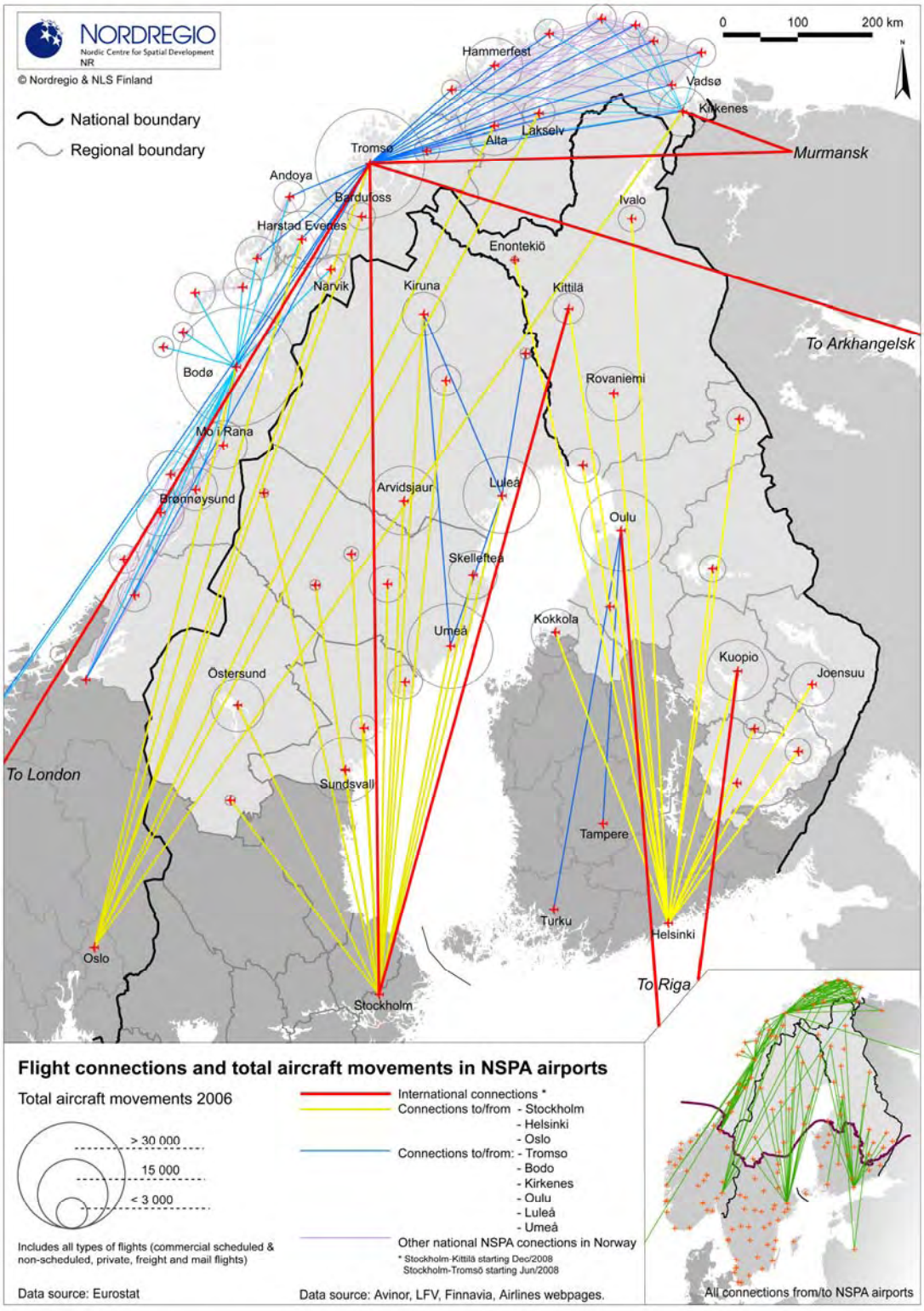

Figure 45: Flight connections and total aircraft movements in NSPA airport

The extreme concentration of the Finnish and Swedish air systems around Stockholm and Helsinki stand in contrast to the system of regional hubs and local connections in Norway. The lack connections between regional airport in the NSPA reduces the scope for interaction and increases the dependence on the capital region.

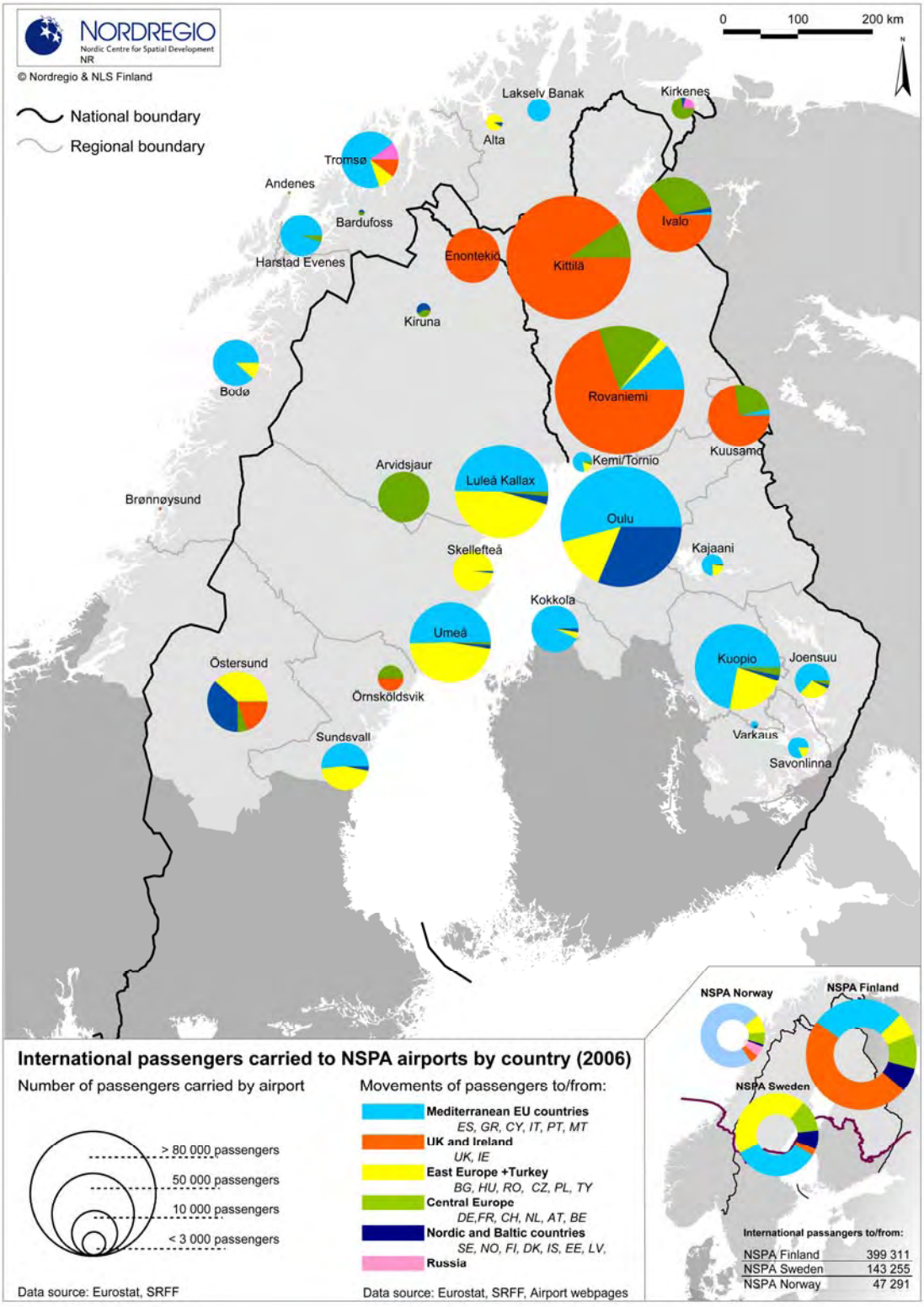

Figure 46: International passengers carried to NSPA airports

While the effect of charter connections to Mediterranean destinations is obvious in this map, one also sees successful strategies to attract tourists from the UK and Ireland in Finnish Lapland. The extent of connections to East Europe and Turkey in the Swedish NSPA also bears witness to emerging connections with these parts of Europe.

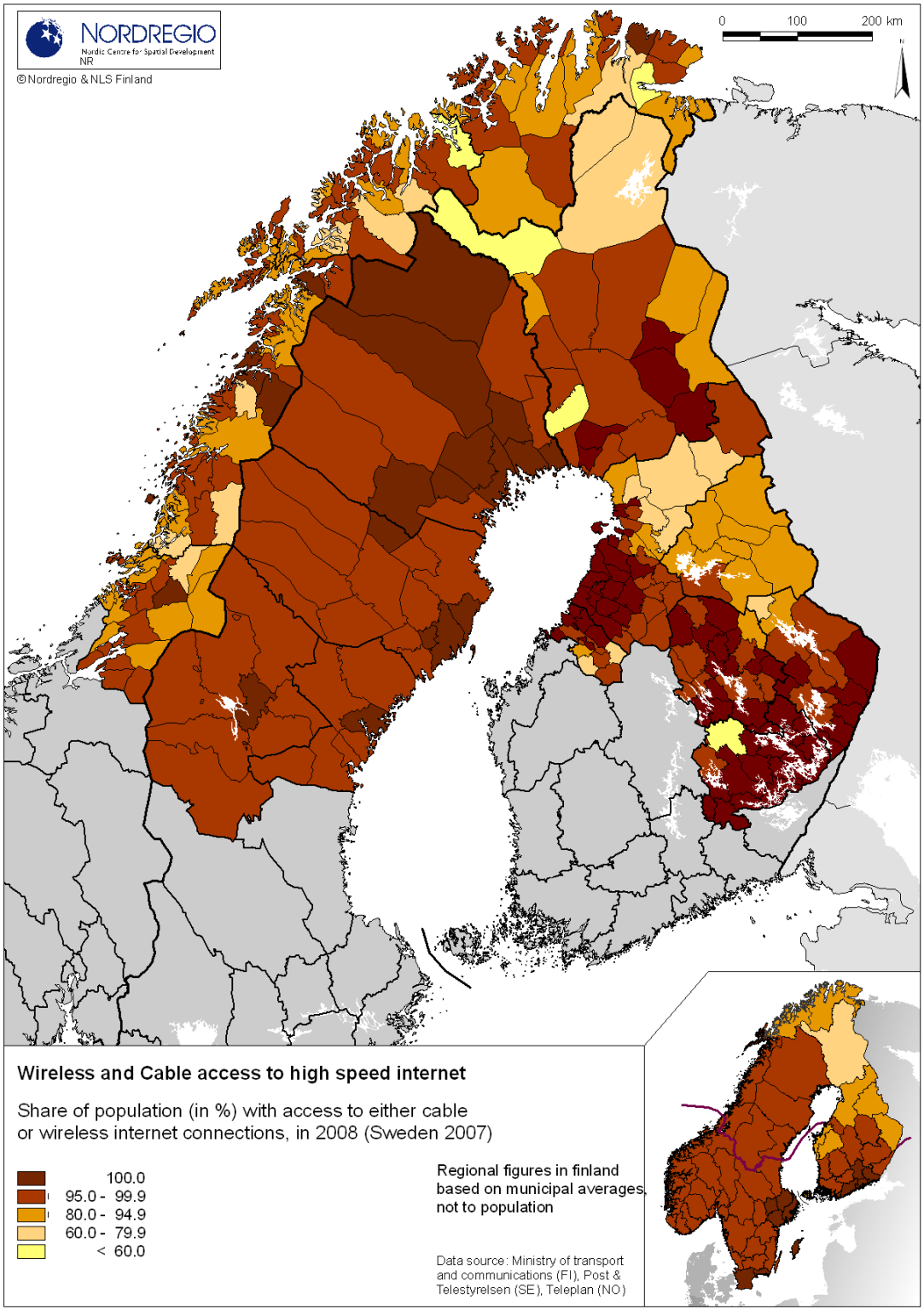

Figure 47: Broadband access in the NSPA

The high values found in all parts of the Swedish and Norwegian NSPA demonstrates that broadband access is generally not an issue. There are national strategies to achieve full coverage in all three countries, including Finland which currently has the lowest values in the NSPA.

Annex

Demographic trends in NSPA labour market areas between 1992 and 2007

Sorted from the most positive to the most negative

Name	Population (2007)	Population growth (% change)			
		1992-1997	*1997-2002*	*2002-2007*	1992-2007
Oulu (FI)	227 585	7,71	9,41	8,28	27,59
Tromsø (NO)	67 690	6,87	6,05	6,36	20,54
Trondheim (NO)	*244 302*	*3,28*	*4,61*	*7,23*	*15,85*
Alta (NO)	18 272	4,41	4,97	5,26	15,37
Bodø (NO)	48 095	5,38	3,49	5,78	15,36
Sievi (FI)	5 257	4,85	4,33	1,41	10,93
Umeå (SE)	142 610	5,56	1,39	3,11	10,36
Rovaniemi (FI)	58 825	3,88	-1,30	3,39	6,02
Kuopio (FI)	124 198	2,86	1,17	1,79	5,92
Joensuu (FI)	102 302	1,90	0,82	2,36	5,17
Levanger/Verdal (NO)	34 915	0,86	0,82	3,08	4,83
Karasjohka-Karasjok (NO)	2 866	3,63	-0,46	0,77	3,95
Kokkola (FI)	*51 055*	*0,85*	*-0,57*	*2,41*	*2,69*
Åre (SE)	10 127	-0,06	-2,40	4,49	1,92
Luleå (SE)	141 945	0,91	-0,37	0,71	1,26
Brønnøy (NO)	11 371	1,16	0,94	-1,53	0,55
Namsos (NO)	16 801	-0,56	0,44	0,32	0,20
Ylivieska (FI)	16 467	-0,09	-1,85	2,17	0,19
Nesna (NO)	1 792	5,92	-3,11	-2,50	0,06
Rana (NO)	29 570	0,60	-0,11	-0,98	-0,50
Sundsvall (SE)	112 459	-0,34	-1,48	1,28	-0,55
Kalajoki (FI)	9 421	-1,82	-2,80	4,19	-0,56
Flakstad/Vestvågøy (NO)	12 151	0,69	-0,44	-1,03	-0,78
Mikkeli (FI)	56 219	0,65	-0,94	-0,79	-1,09
Vefsn (NO)	14 961	0,69	-1,76	-0,25	-1,33
Vikna/Nærøy (NO)	9 049	-0,46	0,44	-1,93	-1,95
Steinkjer (NO)	34 213	-2,14	-0,58	0,71	-2,02
Hammerfest (NO)	10 508	-3,56	-1,84	3,29	-2,22
Harstad (NO)	30 344	-0,22	-0,75	-1,31	-2,26
Lenvik (NO)	17 283	-1,10	-0,65	-0,57	-2,30
Sortland (NO)	24 939	-0,09	-1,04	-1,40	-2,52
Sør-Varanger (NO)	9 518	-0,30	-2,48	-0,30	-3,07
Tornio (FI)	22 373	-0,27	-4,16	0,98	-3,47
Nivala (FI)	10 976	-0,58	-3,44	0,52	-3,50
Skjervøy/Nordreisa (NO)	7 599	-1,65	-0,54	-1,91	-4,05
Guovdageaidnu – Kautokeino (NO)	2 947	1,95	-3,76	-2,48	-4,32
Vågan (NO)	8 933	-1,12	-2,28	-1,14	-4,48
Östersund (SE)	93 432	-1,24	-3,11	-0,17	-4,48
Kittilä (FI)	5 967	-4,52	-3,45	2,93	-5,10
Målselv (NO)	10 597	-3,05	-1,45	-0,83	-5,25

Name	Population (2007)	Population growth (% change)			
		1992-1997	*1997-2002*	*2002-2007*	1992-2007
Kannus (FI)	5 844	1,23	-3,25	-3,36	-5,34
Kaustinen (FI)	4 298	-0,59	-1,99	-3,02	-5,52
Skellefteå (SE)	76 470	-2,43	-3,45	0,15	-5,65
Vadsø (NO)	6 918	-1,93	-2,06	-1,89	-5,76
Narvik (NO)	23 562	-3,29	-1,09	-1,60	-5,87
Oulainen (FI)	9 237	-1,26	-1,79	-3,33	-6,25
Meråker (NO)	2 506	-4,26	-0,27	-1,96	-6,39
Örnsköldsvik (SE)	55 284	-3,42	-3,62	0,43	-6,52
Haparanda (SE)	10 192	-2,75	-2,67	-1,37	-6,64
Kajaani (FI)	54 451	-1,77	-3,74	-1,47	-6,83
Meløy (NO)	6 622	-3,87	0,18	-3,26	-6,84
Røst (NO)	622	-0,45	-3,90	-2,96	-7,16
Grong/Høyland (NO)	3 650	-1,42	-1,91	-4,07	-7,24
Balsfjord/Storfjord (NO)	7 422	-4,60	-2,55	-1,26	-8,21
Kuusamo (FI)	16 899	-0,11	-4,60	-3,87	-8,39
Lyngen (NO)	3 208	-4,65	-4,97	1,01	-8,47
Haapajärvi (FI)	7 850	-1,29	-3,88	-3,72	-8,65
Savonlinna (FI)	34 241	-1,40	-4,29	-3,27	-8,72
Fauske (NO)	16 190	-2,98	-3,70	-2,41	-8,82
Himanka (FI)	3 066	-1,81	-4,16	-3,49	-9,18
Alstahaug (NO)	12 443	-3,14	-2,10	-4,23	-9,19
Raahe (FI)	34 901	-2,21	-4,83	-2,43	-9,19
Træna (NO)	451	-1,61	-5,11	-2,80	-9,26
Härnösand (SE)	24 922	-2,69	-5,96	-1,08	-9,48
Iisalmi (FI)	38 696	-2,07	-5,03	-2,79	-9,59
Kemi (FI)	34 969	-2,56	-5,01	-2,57	-9,83
Älvsbyn (SE)	8 545	-2,27	-4,76	-3,28	-9,98
Haapavesi (FI)	7 515	-1,50	-4,64	-4,28	-10,09
Lierne (NO)	1 480	-3,89	-1,96	-4,64	-10,14
Kalix (SE)	17 283	-3,59	-4,05	-2,93	-10,21
Deatnu - Tana (NO)	2 954	-4,91	-2,20	-3,72	-10,46
Porsanger (NO)	4 059	-2,49	-2,89	-5,47	-10,50
Varkaus (FI)	39 785	-2,98	-4,17	-3,77	-10,53
Inari (FI)	6 954	-1,06	-6,50	-3,64	-10,87
Rantsila (FI)	2 050	-2,65	-5,98	-2,75	-10,99
Suonenjoki (FI)	7 678	-3,61	-6,01	-2,64	-11,79
Båtsfjord (NO)	2 090	7,34	-5,50	-13,06	-11,81
Kiruna (SE)	23 122	-3,62	-6,78	-1,84	-11,81
Værøy (NO)	743	-3,08	-5,88	-3,38	-11,86
Perho (FI)	3 017	-3,18	-7,45	-1,73	-11,94
Ullava (FI)	1 009	-1,66	-7,17	-3,72	-12,11
Toholampi (FI)	3 590	-3,57	-6,63	-2,39	-12,12
Utsjoki (FI)	1 335	-0,85	-7,82	-4,78	-12,97
Mäntyharju (FI)	6 647	-3,62	-4,35	-5,86	-13,21
Lycksele (SE)	15 841	-4,74	-5,62	-3,63	-13,35
Salangen (NO)	3 179	-6,11	-3,37	-4,51	-13,36
Nilsiä (FI)	6 537	-5,75	-6,14	-2,10	-13,39
Juva (FI)	7 213	-4,19	-6,71	-3,17	-13,45

Name	Population (2007)	Population growth (% change)			
		1992-1997	*1997-2002*	*2002-2007*	1992-2007
Härjedalen (SE)	10 699	-4,62	-4,25	-5,23	-13,45
Punkaharju (FI)	3 992	-3,86	-6,59	-4,18	-13,95
Utajärvi (FI)	3 108	-2,99	-6,53	-5,22	-14,05
Veteli (FI)	3 518	-3,57	-6,41	-4,82	-14,09
Vilhelmina (SE)	7 220	-1,51	-7,54	-5,68	-14,11
Lurøy (NO)	1 899	-3,25	-5,84	-5,80	-14,19
Varpaisjärvi (FI)	3 023	-5,45	-5,58	-3,94	-14,24
Hattfjelldal (NO)	1 463	-4,44	-4,04	-6,76	-14,49
Pieksämäki (FI)	20 476	-4,51	-6,04	-4,72	-14,52
Tervola (FI)	3 550	-3,45	-6,23	-6,11	-14,99
Piippola (FI)	1 255	-0,07	-5,08	-10,42	-15,03
Namsskogan (NO)	916	-8,34	-2,33	-5,18	-15,11
Arvidsjaur (SE)	6 751	-5,26	-7,01	-3,79	-15,24
Muonio (FI)	2 363	-5,87	-6,43	-3,94	-15,40
Pertunmaa (FI)	2 019	-7,07	-2,03	-7,17	-15,49
Kangasniemi (FI)	6 131	-4,02	-6,90	-5,59	-15,63
Gällivare (SE)	18 860	-4,54	-9,15	-2,88	-15,77
Sollefteå (SE)	20 679	-5,18	-8,16	-3,30	-15,79
Outokumpu (FI)	7 688	-5,45	-7,91	-3,36	-15,85
Reisjärvi (FI)	3 039	-5,17	-6,48	-5,21	-15,93
Sodankylä (FI)	8 982	-2,27	-9,20	-5,34	-16,00
Ånge (SE)	10 442	-5,69	-6,66	-4,62	-16,04
Kiuruvesi (FI)	9 515	-4,51	-7,16	-5,55	-16,26
Juankoski (FI)	5 454	-6,25	-6,02	-4,98	-16,29
Pyhäntä (FI)	1 763	-5,22	-6,81	-5,27	-16,33
Halsua (FI)	1 379	-2,24	-7,13	-8,01	-16,47
Kärsämäki (FI)	2 986	-5,69	-8,13	-3,86	-16,71
Rantasalmi (FI)	4 261	-5,96	-6,46	-5,60	-16,97
Kitee (FI)	17 446	-5,11	-6,41	-6,55	-17,01
Arjeplog (SE)	3 089	-4,08	-7,94	-6,14	-17,12
Kaavi (FI)	3 490	-5,11	-8,66	-4,64	-17,36
Rautalampi (FI)	3 592	-5,48	-8,03	-4,95	-17,37
Storuman (SE)	6 383	-5,39	-8,68	-4,43	-17,44
Lødingen (NO)	2 279	-8,15	-6,11	-4,32	-17,49
Steigen (NO)	2 672	-5,09	-6,50	-7,06	-17,53
Flatanger (NO)	1 138	-5,94	-4,16	-8,52	-17,54
Kvænangen (NO)	1 348	-7,45	-6,46	-4,94	-17,70
Pudasjärvi (FI)	9 142	-4,16	-8,39	-6,66	-18,05
Jokkmokk (SE)	5 406	-2,82	-9,83	-6,50	-18,07
Gáivuotna-Kåfjord (NO)	2 248	-9,54	-5,03	-4,71	-18,14
Taivalkoski (FI)	4 621	-3,41	-9,57	-6,46	-18,30
Övertorneå (SE)	5 092	-4,36	-9,58	-5,55	-18,32
Kramfors (SE)	19 663	-5,62	-8,88	-5,06	-18,35
Berlevåg (NO)	1 077	-4,47	-5,39	-9,72	-18,41
Lestijärvi (FI)	904	-1,53	-10,16	-7,94	-18,56
Nordkapp (NO)	3 219	-8,99	-3,02	-7,95	-18,75
Puumala (FI)	2 723	-4,93	-8,41	-7,10	-19,10
Kolari (FI)	3 796	-9,66	-7,85	-2,94	-19,20
Kestilä (FI)	1 603	-3,22	-10,30	-7,02	-19,28

Name	Population (2007)	Population growth (% change)			
		1992-1997	*1997-2002*	*2002-2007*	1992-2007
Åsele (SE)	3 265	-5,04	-9,00	-6,69	-19,36
Pyhäjärvi (FI)	6 124	-5,44	-10,37	-4,98	-19,47
Överkalix (SE)	3 795	-6,26	-8,17	-6,48	-19,50
Sorsele (SE)	2 811	-4,95	-8,34	-7,72	-19,59
Andøy (NO)	5 078	-7,43	-6,44	-7,29	-19,70
Strömsund (SE)	12 679	-6,19	-9,81	-5,18	-19,77
Pulkkila (FI)	1 612	-7,95	-5,45	-7,94	-19,88
Lebesby (NO)	1 304	-5,64	-2,47	-13,07	-20,00
Sulkava (FI)	3 087	-6,11	-7,30	-8,21	-20,11
Moskenes (NO)	1 128	-4,18	-7,76	-9,62	-20,11
Tysfjord (NO)	2 028	-6,58	-5,52	-9,50	-20,13
Keitele (FI)	2 642	-6,80	-5,51	-9,40	-20,21
Dorotea (SE)	2 993	-6,95	-7,02	-7,82	-20,25
Juuka (FI)	5 832	-5,48	-7,83	-8,47	-20,26
Rääkkylä (FI)	2 735	-5,32	-7,22	-9,44	-20,45
Pielavesi (FI)	5 292	-5,67	-8,59	-7,92	-20,60
Enontekiö (FI)	1 965	-4,44	-12,35	-5,21	-20,61
Ylitornio (FI)	4 943	-5,97	-9,06	-7,26	-20,70
Vaala (FI)	3 561	-3,89	-9,90	-8,55	-20,81
Bindal (NO)	1 631	-4,60	-7,47	-10,48	-20,98
Heinävesi (FI)	4 152	-7,95	-6,74	-8,02	-21,03
Nurmes (FI)	11 357	-6,63	-8,64	-7,72	-21,28
Ranua (FI)	4 512	-5,18	-10,09	-7,97	-21,54
Beiarn (NO)	1 128	-5,76	-10,02	-7,62	-21,67
Hamarøy (NO)	1 761	-6,79	-8,33	-8,57	-21,87
Suomussalmi (FI)	9 632	-5,22	-9,78	-8,68	-21,92
Kuhmo (FI)	9 943	-6,54	-9,62	-7,65	-21,99
Ilomantsi (FI)	6 203	-4,36	-10,86	-8,83	-22,28
Pajala (SE)	6 522	-6,56	-8,18	-9,49	-22,35
Rødøy (NO)	1 314	-4,43	-9,70	-10,12	-22,43
Bjarkøy (NO)	509	-8,76	-11,75	-4,50	-23,11
Vesanto (FI)	2 477	-6,92	-10,13	-8,16	-23,17
Savonranta (FI)	1 206	-9,50	-9,10	-7,16	-23,62
Lieksa (FI)	13 181	-6,60	-9,29	-10,07	-23,81
Torsken/Berg (NO)	1 874	-5,71	-7,89	-13,28	-24,68
Posio (FI)	4 087	-6,70	-12,11	-8,32	-24,82
Pello (FI)	4 216	-7,90	-11,11	-8,84	-25,37
Hyrynsalmi (FI)	2 967	-6,59	-11,55	-10,06	-25,69
Måsøy (NO)	1 333	-14,67	-7,53	-6,46	-26,19
Kemijärvi (FI)	8 882	-6,07	-12,60	-10,61	-26,61
Pelkosenniemi (FI)	1 063	-7,17	-9,73	-12,58	-26,74
Gamvik (NO)	1 040	-6,04	-9,87	-13,69	-26,91
Vardø (NO)	2 190	-4,37	-14,32	-12,26	-28,10
Puolanka (FI)	3 225	-7,57	-13,23	-10,47	-28,19
Leka (NO)	589	-9,74	-9,31	-12,35	-28,26
Hasvik (NO)	998	-11,26	-11,08	-9,85	-28,87
Salla (FI)	4 364	-8,08	-14,55	-9,50	-28,91
Ibestad (NO)	1 511	-11,43	-11,06	-10,54	-29,52

Name	Population (2007)	Population growth (% change)			
		1992-1997	*1997-2002*	*2002-2007*	1992-2007
Savukoski (FI)	1 244	-9,63	-11,34	-12,08	-29,56
Loppa (NO)	1 106	-9,44	-8,22	-16,78	-30,83
Rautavaara (FI)	1 988	-9,49	-14,89	-11,25	-31,64
Røyrvik (NO)	499	-12,18	-16,62	-8,78	-33,20