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# Some Nordic examples - Globalisation and Innovation

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From the paper-mills of *Stora Enso* in Oulu, the 'innovation city` in Finland. Photo: Odd Iglebaek

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# **On globalisation and innovation**



Representatives of the official Swedish Globalisation Council

Many would argue that the world at present is riding high on a wave of globalisation. Many would also argue that like all good things, there is an end to this, or maybe not? Could it simply be that with so many inhabitants, with transport relatively accessible and cheap and with political liberalism seemingly triumphant that globalisation is here to stay? In other words, that globalisation is a constant process proceeding at different speeds. Probably this is the most sensible definition.

In many ways the answer to questions like this depends on how you define globalisation. Such a task is easier said than done. In this issue of the Journal of Nordregio, we do however try to provide some insight in to these questions. We do so by benefiting from the expertise of Anders Johnson, see pp 8-9, among other things currently an advisor to Globaliserinsgrådet: the Council on Globalisation, appointed by the Swedish government.

Mr. Johnson lists a set of parameters he feels are needed to define globalisation: Technology, Political leadership, Commerce, Trade in Services, Capital Movement and Migration. When, in January, he publically presented his findings, the debate was vey much related to the notion of "winners" and "losers" under globalisation. Both the USA and Sweden were mentioned, but clear answers were not really provided.

Interesting to note also, is the fact that for the majority of the people of the world there is still no freedom to move to "greener pastures". In terms of migratory regulations the current international regime has probably never been as strict as it has recently become. What this will mean in the longer perspective remains unclear. For the Nordic countries it can however be argued, that unless we see rapid changes in respect of integration policy, it may already be too late (pp 18-19).

What if any, is the relationship between regional policies and globalisation? In the Nordic context the first generations of such policies can be described as equalisation while the second generation focussed on growth. The current and third generation of policies can be said to be about deeper integration into the global economy. The argument here is that it is of the utmost importance to realise endogenous regional capacities for innovation and regeneration.

'Innovation', like globalisation, is one of the current 'buzzwords' in our part of the world. Again, similar to globalisation, it is a concept that is constantly being used while attempts to actually definite it continue unsuccessfully. Your editor has participated in numerous conferences on this theme, and to be honest, has often had the feeling that what this is really all about is simply an attempt to rename what have traditionally been referred to as opportunities, developments and inventions in a 'sexier' or novel manner.

In this respect it was very interesting during December 2007 to have the possibility to spend some time in the Finish City of Oulu (see pp 4-5). In particular, it was refreshing to meet some of the inhabitants of the town. They undoubtedly understood that a lot more is needed to create jobs and a living community than the talk of the so-called 'innovations gurus', whether they are from the US or closer to home. In conclusion, perhaps the most important lesson from Oulu is that they have already passed into the third wave of Nordic regional policies. Moreover, we can tell with some certainty that they are not finding it easy, in particular with regard to attracting global companies and international migration (pp 4-5). Could it be then that the best practice in future will see increasing reliance on local resources - both socio-cultural and economic?

In *Journal of Nordregio* 2007(2) we presented a story on the North European Gas Pipeline, planned for the Baltic seabed from Vyborg in Russia to Griefswald in Germany. In this issue we are pleased to present the views of exdiplomat, and now Professor of Politics at Umeå University, Krister Wahlbäck who argues that the gas pipeline ought to follow the existing alignments of Yamal 1 through Belarus and Poland, i.e. on land.

Interestingly enough, it was announced by the Swedish Minister of Environment, Andreas Carlgren, the day after Krister Wahlbäck stated his opinion publically, that the Swedish Government has itself had second thoughts on the route for the pipeline. In particular the Government demands that a thorough study be undertaken on how the pipeline could influence the fragile environment of the Baltic Seabed.

In many ways, it is quite surprising that the Swedish Government has not voiced such concerns more strenuously on previous occasions. In particular, since the debate on the pipeline more than anything concerns Europe's future energy security arrangements and the influence of Russia in this respect.

Odd Iglebaek, Editor Odd.iglebaek@nordregio.se





The paper-mill Stora Enso, approximately a mile from Oulu city centre, letting out steam. Photo: Odd Iglebaek

# Oulu needs more than Nokia

Oulu: The town's official slogan is "Oulu inspires". Questions for the future however remain: What about Nokia, what about attracting immigrants, and for that matter, what about *Stora Enso*, the town's huge paper factory, definitively steaming high on a winter day?

Soon spring will return to this Nordic city, some 173 km south of the Polar Circle. The ice will melt in the Gulf of Bothnia, and modern leisure-yachts will join the paper laden cargo-ships. Summer sees firs and birches stretch towards their growth-peak and sooner or later become ripe for felling. Nokia by the way started its production based on wood products as a paper-mill company back in 1865, and Oulu in 1900 portrayed itself as the "tar town" - a centre for manufacturing and export of this wood-based commodity. During the season ships sailed southward with barrels of this sticky, impregnating liquid together with salted (wild) salmon and emigrants ready to set out for North America

'Modern' Oulu emerged in 1959. This was the year that the university, with a clear technological profile, came to town. The merchants, shop-assistants, engineers, industrial workers, health personal and public employees gradually saw an increasing number of academics and students join their midst. Currently, university students account for no less than 25 000 of the city's 130 000 inhabitants. There are probably more Ph.Ds per square metre here than anywhere else in the world, claims the *International Herald Tribune*, as quoted by *Oulu Inspires*, an official municipal enterprise. Measuring students relative to overall population definitely puts Oulu in the top division as far as *Norden's* centres of learning go.

Nevertheless, unemployment in Oulu remains stubbornly high, at approximately ten percent, or two percent more than the average for Finland. At the same time, the growth in new jobs in the town has more or less been double the average for Finland as a whole. However this growth has largely been "eaten up" by the continuing influx of new population into Oulu.

More than half of the citizens in the town/region have jobs. This is typical for Finland. Out of 68 000 registered jobs in Oulu city close to 10 000 are filled by civil servants within the city itself. The second largest employer is the Northern Ostrobothnia Hospital with some 5 500 employees. Number three employer is the *Nokia Group* with 4 700, some 500 of whom are researchers. Oulu University has 3000, Vocational Training 1500, *Kesko* 1300 and *Stora Enso* 1000. *Stora Enso* has however recently announced major loses, even after deciding to 'rationalise' by closing factories in Summa and Kemijärvi in Finland as well as at Norrsundet, north of Gävle in Sweden.

In relation to what we generally term 'the Nordic innovation environment', Oulu is often portrayed as some kind of 'innovation heaven' with *Nokia* of course being to the fore here. But on the internet *Nokia* does not really exist in Oulu. Indeed, one can hardly find any information about *Nokia* in Oulu on the company's official homepage. The same goes for the subsidiary company *Nokia Siemens* which employs the majority of the



Change in the total number of workplaces in Finland and Oulu in 1995-2005. Index 1995 = 100

*Nokia Group's* staff in Oulu. Globally however *Nokia Group* employs a total of 112 000 people in 120 different countries.

Nokia's headquarters is in Espoo close to Helsinki. The research centre is in Ruoholahti, Helsinki, in a new 'trendy' waterfront transformation property. The company's chief technical executive Bob Iannucci has his office in Silicon Valley. In Finland the company also has premises in Salo, Jyväskylä, Tampere and Turku in addition to Espoo/Helsinki and Oulu. Moreover, Tampere, Jyväskylä and to some extent also Turku remain, in many ways, competitors to Oulu by being cities which also promote high level technical education in combination with R & D.

Like any other huge international company Nokia opens and closes premises depending on how they judge the potential for profit. Earlier this year it was for example announced that Nokia will close its factory in Bochum, Nordrhein-Westfalen, employing 2 300 persons. With the production of mobile telephones being transferred to Cluj in Romania. This has led the regional government of Nordrhein-Westfalen to demand that Nokia repay 41 million Euros. The sum is what this German regional authority claims they have provided in subsidises to Nokia since they located to Bochum. Nokia's initial reaction to the demand was that it was "surprising".

Most of the city fathers in Oulu (yes, they are mostly males), do not see much point in openly criticizing *Nokia*. Instead they prefer to talk about what is needed to "keep the steam of the city high": – Our challenge is to become a city of growth in the global market, a town that is attractive to companies from abroad, companies who also employ people who do not speak Finnish, underlines Jukka Klemettilä, the CEO of *Oulu Innovations Ltd*, a non-profit making development company in the high tech sector.

- It is important to understand that we are relatively low cost compared to e.g. Helsinki, you get more research for your money here than in the capital. At the same time we cannot reduce more on cost and therefore we have to compete by other methods, he adds. The town council is very united with regard to facilitating cooperation between business and the universities. We have learned that this is of the utmost importance in order to provide jobs and opportunities, says Kyösti Oikarinen, a member of the *Centre Party* and chairman of the City Council of Oulu.

He underlines that the town council remaines very much aware of the fact that the future must be more than *Nokia*: – Many *Nokia* jobs have already gone to China. We must also curtail the flow of emigration to Helsinki. Therefore we need good schools, a wide variety of cultural attractions and the ability to provide attractive housing.

– It has been argued that Oulu also needs substantial immigration?

- I agree, but thus far we have not succeeded. We have many work-related students here from say, China and Turkey, but most of them leave after finishing theirs degrees or internships. Obviously they do not feel 'at home' here and miss their families and friends, so it is not easy to encourage them to stay.

In fact, Oulu already has an international school teaching in English. During breaks however most of the kids speak Finnish. The reason is that most of them are sons and daughters of Finnish *Nokia*employees pursuing an international career.

Heikki Pudas is the director of municipal Innovations and City Marketing (*Oulu inspires*). He notes that Oulu is now *the* wireless capital of the world. In other words, with the right equipment you can connect to the internet free of charge anywhere in the town. He trumpets the city's educational facilities and the fact that 18 000 of the jobs in the city, that is more than a quarter, are in the high tech area. In other words, more than 13 000 of these jobs are outside *Nokia* with many being in small companies employing less than 20 people.

Altogether then substantial opportunities for growth and to establish new companies remain, he says, adding that one should observe that. geographically, Oulu is situated quite close to the Barents Sea with ample opportunity to be involved in the future extraction of oil and gas. Most companies in the city are on a sound financial footing. I also think it is a good sign for the future that in recent months quite a few engineers from India have come to Oulu to work here on contracts, Heikki Pudas adds.

By Odd Iglebaek



How Nokia present the company's research centre at Ruoholahti in Helsinki. Photo: Nokia

# The New Nordic Postal Wars

In recent years national postal services across the Nordic countries have been increasingly transformed into commercial companies. Although these organisations continue to engage in extensive cooperation, they are now, economically at least, effectively at war with each other. Competition is particularly fierce within the field of transport and logistics

state in their press-release. This expansion has, primarily, been in Sweden, - Our plan is to double our foreign holdings by 2011, states Dag Mejdell, CEO of Posten Norge according to Dagens Industri.

Total turnover for Posten Norge in the last three years has grown by 10 billion NOK reaching 27.4 billion NOK last year. - That means we have outgrown Posten Sverige, measured by turnover, states Kjell Rakkenes of Posten Norge.

The official figures for

turnover of Posten Sverige last

year were 30.0 billion SEK or

25.5 billion NOK. Posten

Sverige employs more than

30 000 people and is one of

Sweden's largest enter-

prises. Posten Norge em-

ploys just over 23 000

Like Posten Norge, Posten

Sverige has acquired its

people.

– though even the traditional 'national preserve' of maildistribution is under attack. This new postal war is in our part of the world also a struggle to be the leading enterprise in the race to effectively, "brand Norden".

In February the major Swedish financial daily Dagens Industri carried several large advertisements under the heading Grönt så in i Norden (Green deep into Norden). There were five different announcements under this banner, one for each weekday.

Each advertisement carried the trademark of four different mail- and distribution companies in Norden: Frioscandia, Nor-Cargo, CityMail and Box-Delivery (with IKEA as its largest customer).

What the advertisements do not reveal however is that all four companies are owned by Posten Norge (Norway Post). Their logo was however nowhere to be seen in these advertisements. Was that a deliberate attempt to Kjell reduce controversy? - No, Rakkenes, head of press at Posten Norge, assures us; the reason is that it is through these four companies that we are best known in Sweden. It is all about product recognition.

Posten Norge has over the last three years invested no less than five billion NOK in buying up companies "to gain a good foothold in the Nordic market" as they

# Grönt så in i Norden BOX & OTICIDALMON PROTOTO

All green? How Posten Norge is marketing their new strategy in Sweden.

from Posten Sverige has thus far been that: - We will wait and see, says Per Ljungberg, head of press at Posten Sverige who adds: - We are used to competition, in fact the Swedish market was deregulated already in 1993.

Posten Norge had a net income (before tax) of 949 million NOK last year. Almost 23 percent of this figure was generated in Sweden. Net income for Posten Sweden was 1 564 billion SEK.

Norge campaign is to present all their companies under one trademark. According to marketing analysts however this can be a risky business, particularly since it is the trademarks more than the vehicles, people and logistical systems that Posten Norge has bought.

The new trademark for Posten Norge has not yet been decided. It has however already been agreed that the image will be green. At the same time however they want to maintain their traditional red colour in Norway. In the press-release

own transportation company. In fact the Swedes took over Norwegian Tollpost. Posten Sverige had previously also bought Strålfors, a large company in the graphic production and information logistics sector. Post Danmark has in the

meantime been expanding southward by initiating cooperation with Deutsche Post. potentially the largest mail and logistics enterprise in Europe.

> One central element in the Posten new

however they use the green livery of BoxDelivery.

Kjell Rakkenes of *Posten Norge* says that the new environmental profile in particular will be applied to transport. He has, however, little news to provide on how that is going to be implemented. At the same time he underlines that *Posten Norge* is very keen to further develop Nordic cooperation in this field.

- Particularly for Norway, it is important to get more post off the roads and onto the railways, but at present little in the way of free capacity is available here. Indeed it looks like we are unlikely to see a change here until the new railway expansion programmes are complete, he adds.

Economically, the transport sector will soon account for almost half of the turnover of all Nordic Postal enterprises. The IT business accounts for around ten percent, while the traditional distribution of mail accounts for the remainder. More than anything however net-trading has rapidly helped to change the traditional concept of the post.

Already back in 1998 Posten Sverige, Posten Norge, Post Danmark and Itella (Post Finland) joined forces in the Nordic



Postman made in Norway?

logistics market and established PNL *Pan Nordic Logistic*. This was based on an understanding that there really only exists one market in the Nordic countries. However Finland soon broke away and Sweden also left in 2001. PNL nevertheless continues to have its headquarters in Stockholm.

It is however interesting to note that the two remaining owners of PNL, *Posten Norge* and *Post Danmark*, are fighting each other for part of the market in Denmark, in particular in relation to the distribution of mail. Thus far *CityMail* (owned by *Posten Norge*) covers 1.0 of the 2.5 million households in Denmark, but the Norwegians are hoping that a liberalisation of the market will occur which will mean that they can cover the whole country.

In Sweden *CityMail* covers 43 percent of all households and also here there are plans for expansion. *CityMail* was by the way originally a privately owned Swedish company.

By Odd Iglebaek Odd.iglebaek@nordregio.se

### Spreading out: Offices of Nordic companies abroad

Most wildspred Nordic enterprises						
nr of countries	Company	Country	Industry	Profits (€ bil.)		
169	Novo Nordisk	Denmark	Drugs & Biotechnology	0.76		
161	A.P. Møller - Mærsk A	Denmark	Transportation	2.13		
142	Atlas Copco	Sweden	Capital Goods	1.50		
139	SKF Group	Sweden	Capital Goods	0.42		
123	Nokia	Finland	Technology Hardware & Equip	3.81		

Number of top Nordic enterprises with a local office(s) in the country. Selection of enterprises: Nordic enterprises within the top 1000 on the Forbes list of "Global 2000 - Worlds largest companies" (high performers). List based on ranking of sales, profits, assets and market value at the begining of January 2007 There are 38 Nordic enterprises within the global top 1000 enterprises. Sales and profits as of February 2007 in U.S. dollars. Exchange rate as of Mar. 3. 2008.



# The Three Waves of Globalisation

In the last 150 years the Nordic countries have experienced three epochs characterised by greatly increased international integration: the 50 years preceding World War I, the quarter of a century after World War II, and the present time.

### The First Wave

From 1860-1914 Europe and North America were strongly affected by internationalisation. The flow of goods accelerated. Capital moved relatively freely between countries. In some respects financial integration was more pronounced than it is today. Even international migration was greater than it is today. Roughly 60 million people left Europe to seek their fortunes in the New World.

Important drivers behind this wave of globalisation were both the new technology of the era that could bridge long geographical distances and the fact that many countries began to embrace liberal trade policy after years of protectionism. During the period 1500-1800, world trade increased by about 1 percent per year. After 1820 it increased by 3.5 percent and during the nineteenth century as a whole, trade in Europe increased by 40 percent.

Great Britain was the world's leading economy. The basis for the European free trade system was the 1860 free trade pact between Great Britain and France. Many other European countries subsequently aligned themselves with this free trade system.

Great Britain had introduced the gold standard in 1816, which meant that their currency gained a stable value in relation to gold. During the nineteenth century the English pound *sterling* was the generally accepted currency of international business and many other countries introduced the gold standard.

Sweden and Denmark established a monetary union based on the gold standard and with the *kronor* as the monetary unit. Two years later Norway joined the Scandinavian monetary union. The *kronor* had the same value in all three Scandinavian countries and the currency in each of the countries could be used interchangeably in daily transactions.

	The First Wave	The Second Wave	The Third Wave
Time period	1860-1914	1944-1971	1989-
Technology	Steam engine, Telegraph. Electricity, Internal combination	Jet planes. Television. Communication satellites. Container traffic	Microprocessor. PC. Internet. Mobile telephones.
Political Leadership	Great Britain comernic leader. Colonistiam.	USA economic leader, Cold War.	Multi-polar (USA, EU, Chira). Global democratic processes.
Commerce	Initially free trade, but increasing protectionism.	Gradually reduced industrial tariffs.	More and more countries adopt live trade.
Trade in Services	Limited scale. Shipping industry mast important.	Limited scale. Shipping industry most important.	Increased scale in more and more branches.
Capital movement	Free.	Regulated.	Free.
Migration	Free movement. Emigration.	Regulated (excluding Nurdic countries), Labour migration.	Regulated (excluding EU). Political migration.

### The Second Wave

International regulations and organisations to support economic integration at the global level were created after World War II. Cooperation was based on the Bretton Woods Agreement of 1944.

The USA was now the leading economy in the world and the *dollar* became the monetary basis of the financial system. The 'Bretton Woods system' meant that nations had fixed currency exchanges in relation to the US *dollar*, which in turn was fixed to the gold standard.

In an important aspect, the post World War II international economy was less open than the period prior to World War I. Before World War I the international flow of capital had been free. The Bretton Woods system was based on governmental control of the international flow of capital.

Two organisations were established during this period, the World Bank (IBRD) and the International Monetary Fund (IMF). In addition a special agreement, the General Agreement on Tariffs and Trade (GATT) became operative in 1948. In practice GATT became the international organisation which set the framework for several important steps towards increased global free trade, particularly via successive reductions in industrial tariffs.

But by 1970 the Bretton Woods system was coming under increasing pressure. The primary reason for this was the escalating cost of the Vietnam War and of the 'Great Society' social reform programme which led to a US budget deficit and to inflation.

In 1971 the US President Richard M. Nixon "closed the door" on the gold standard and the first devaluation of the dollar come a year after. The post-war international currency system was then further shaken by the oil crisis of 1973.

### The Third Wave

Since the 1970s the cost of processing, storing and transferring information has decreased dramatically, thus creating new possibilities for international trade and business. In addition, political trade barriers have been relaxed in many ways. The World Trade Organization (WTO) was established in 1995 and capital has again become more elastic.

The more populous countries in the developing world, particularly China and India, have opened their doors to the world. European cooperation has widened and deepened. The fall of the Berlin Wall in 1989 can be seen as a suitable starting point then for the third wave of globalisation.

In the last few decades, international trade has grown significantly faster than total production. The export of goods amounted to 31 percent of global GDP in

2006 as compared to 12 percent in 1970. Foreign direct investment (establishing or buying up companies abroad) has increased twice as fast as trade. An even more rapid increase has been seen in foreign securities (investments that do not lead to controlled ownership in foreign companies).

We are now in a truly exciting phase of global economic development. Globalisation gives rise to a number of new business potentials. But business potentials are not *discovered* in the same way as one discovers a mineral deposit. Rather business possibilities are *created* in the way that one creates a work of art – by combining a range of variables in a unique manner.

The only thing that we can say for certain about the future's most successful international entrepreneurs is that we certainly cannot know what they will build their business ideas upon.

By Anders Johnson, (anders@skriftstallet.se) writer and author of the work "Globaliserings tre vågor" (in Swedish). www.regeringen.se/globaliseringsradet





# **Aluminium smelter in Greenland**

Alcoa, the world's leading producer of aluminium with 116,000 employees in 44 countries, is planning to build an aluminium smelter in Greenland. Great hopes surround this major project, not least that the income generated would facilitate the prospect of political independence from Denmark. The effects of such an industry on Greenland's economically and socially vulnerable society are however difficult to foresee.

*Alcoa* has received praise for its high standards in terms of social and environmental corporate responsibility. Good intentions alone are however no guarantee of success. Greenland's government will ultimately be responsible for the potentially wide-ranging economic, social and territorial effects of an aluminium smelter on its territory. The question is then whether it has the capacity to ensure that the smelter becomes an asset for Greenland as a whole.

Greenland is in the unique position of having vast hydro-electric potential which far exceeds the energy consumption of its 56,000 inhabitants. This energy potential is not however currently exploited. Greenland's 75 towns, villages and settlements are spread along the coast, without any roads or electric cables between them. The inhabitants thus predominantly rely on fossil fuel energy.

In an attempt to reap the benefits of their energy potential and with a desire to improve Greenland's prospects of becoming economically self-sufficient Greenland's government and *Alcoa* have recently discussed the possibility of establishing an aluminium smelter.

The initial impetus the project arose from the prospect of significantly improving state finances while also creating 400 new 'direct' jobs. The government emphasizes that *Alcoa* has promised to employ only Greenlanders at the smelter. It is however unclear where these employees will come from. According to Greenland's employer organisation, Greenland currently lacks some 1000 trained employees. Governmental plans to reclassify fishermen and hunters with insufficient income levels as workers in the mining or in the aluminium industries have furthermore been vigorously rejected by their union (KNAPK). More obviously than in other countries, Greenland's politics demonstrates that the selection of an industrial development strategy is also a major societal choice.

Another key issue here is the selection of a location for the smelter. Among the towns that have been considered, one finds Nuuk, the capital, with 14,700 inhabitants and Sisimiut, which is second largest with 5,344 inhabitants and often characterised as a being particularly entrepreneurial. The third option, Maniitsoq, which is the 6<sup>th</sup> settlement with 2.842 largest inhabitants, was however the one chosen by the government in a recommendation to Parliament dated February 21st, 2008. This decision followed a year-long process, in which the concerned municipalities have been involved.

The Government's recommendation is based on a series of arguments. The prime ones build on claims that the Maniitsoq plant has the most favourable strategic environmental assessment and the lowest building cost estimates. But the decision is also presented as the best choice in terms of regional development. The notion of polycentric development has even been mentioned in the debates. A smelter in Maniitsoq would contribute to the development of distinct activity profiles in the three towns. It would leave Nuuk with its role as the administrative capital, while Sisimiut could continue to be a centre for entrepreneurship and education. This would leave Maniitsoq to concentrate Greenland's competencies in the mining and energy sectors. This share of roles would, according to the Government, contribute to a more balanced approach to regional development.

The very use of the notion "regional development" in a country with no possibility of commuting between its settlements can however be challenged. Central regional policy notions such as "diffusing effects", "synergies" or "complementarities" simply do not apply. Spatial proximity is generally less relevant than *Air Greenland* schedules and fares when assessing the potential for interaction between two places. Very few towns can actually be characterised as "labour markets", i.e. as places where the offer of, and demand for, labour effectively regulates economic activity. As in many other Nordic peripheries, the market mechanisms which planning otherwise takes for granted operate only to a limited extent here.

As such, there is a strong case for further exchanges between Greenland and the other Nordic peripheries on issues of spatial development. Greenland's challenges could help the rest of *Norden* gain a clearer understanding of its own

The potential locations of the aluminum smelter and hydro power plants in the region between Nuuk and Sisimiut



# **New Greenland fibre optic link**

regional specificities. As extreme cases of demographic sparsity and peripherality, Greenland's towns demonstrate the need for tailor-made policies in the northern peripheries. Their small population numbers and isolation may also give an indication of the type of challenges other Nordic peripheries may run into if the depopulating trends of recent decades are allowed to continue.

Inversely, the experience of other Nordic countries in terms of planning and foresight could usefully feed into Greenland's debates and strategies. Greenland could also usefully draw inspiration from other Nordic peripheries' attempts to develop a more holistic approach to the consideration of their aspirations and future needs, formulating overarching objectives and designing strategies to help achieve them.

The debates surrounding the aluminium smelter indeed demonstrate a lack of vision for Greenland. The communicative dimension of "planning", as a process bringing together stakeholders and actors to create a common understanding of critical issues and a consensus around potential solutions has neither penetrated the administration nor, indeed, policy-making circles. With the aluminium smelter, Greenland is facing dramatic challenges and changes. However, the tools needed to manage them wisely, with a long term perspective and a broad consensus, are simply not yet in place.

The author wishes to thank Freia Lund Sørensen and Peter Barfoed for their help in providing information for this article. The views expressed herein are however the author's own.

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On 26 February, the Nordic Investment Bank (NIB) granted a loan to the telecommunications company *Tele Greenland* to finance the company's investment in a marine fibre optic cable connecting Greenland with Canada and Iceland.

Establishing the 4,500-kilometre two-leg marine fibre optic cable will safeguard the telecommunications capacity between Greenland and the rest of the world for the next 25 years. The cable will be operational starting in 2009. "The cable is a prerequisite for enhancing the global competitiveness of Greenland's trade and industry. Moreover, the cable will ensure *Tele Greenland's* growth and the fulfilment of the company's wider societal obligations in Greenland.

Strengthening the competitiveness of NIB's member countries is a key objective of the Bank's operations," says Johnny Åkerholm, NIB's President and CEO. NIB's loan totals EUR 20 million and has a 10-year maturity.

### Nordregio research on climate and energy

### Municipal Responses to Climate Change Emergencies (MuniRes)

The project aims to survey and investigate, in greater detail, the local level responses to climate change in Sweden, Finland, Germany, Italy, Lithuania and Denmark, especially in flood-prone municipalities (both inland water and coastal) in order to identify the main (perceived) challenges and the currently existing best practices.

On this basis the goal and objective of the project is to develop, in cooperation with selected municipalities and other stakeholders, Climate Change Guidelines for Flood-Prone Municipalities specifically relating to the question of how to take the climate change-related civil protection vulnerabilities, particularly rising water levels, drainage issues and the effect of heavy rains etc., into account in municipal spatial planning in a more integrated manner.

Duration: January 2008-December 2008

Client: EUROPEAN COMMISSION, DG for Environment, A.3 Civil Protection Lead partner: Nordregio Information: richard.langlais@nordregio.se

### **Research Partners:**

- · University of Helsinki, Aleksanteri Institute, Finland
- Helsinki University of Technology,
- Laboratory of Geoinformation and Positioning Technology, Finland
- Emergency Services College, Finland
- Department of Mass Emergencies, ISIG
- (Institute of International Sociology of Gorizia) Italy
- INFRASTRUKTUR & UMWELT, Germany

The conducted research and dissemination of the project will be coordinated in cooperation with the activities of the CIVPRO Civil Protection Network. For further information about the CIVPRO Network: http://www.helsinki.fi/aleksanteri/civpro/index.htm

### Bio-energy and regional development

This project aims to provide a preliminary overview of the potential for the sustainable production of biomass and bio-energy, and an analysis of their regional impacts in the Nordic countries. Which Nordic regions are more suitable for biomass- and bio-energy production? Which bio-energy alternatives are likely to be more sustainable for use in the Nordic regions, and what are the social consequences of the expansion of the bio-energy market likely to be? These are the central questions the study attempts to investigate.

Duration: October 2007 – June 2008 Client: Nordic Council of Ministers Lead partner: Nordregio Information: patrick.lindblom@nordregio.se

# - Gas-pipe onshore!

"Who is afraid of the NGEP – and why?" was the question we presented in Journal No 2, 2007. Krister Wahlbäck, professor of politics at Umeå University and ex-roving Ambassador at the Swedish Foreign Office argues in this article that the planned gas-pipe (NGEP) should not be laid on the bottom of the Baltic Sea. Rather it should follow an existing route onshore.

In a terse letter to the *Nord Stream Company* dated 12 February 2008, the Swedish government declined to consider their application of 21 December 2007 for permission to lay their planned gas pipelines from Russia to Germany on Sweden's continental shelf. *Nord Stream* was told to come back with a new and much more thorough application.

Apparently, Nord Stream directors have made several mistakes, of which only two can be dealt with here. Firstly, they do not seem to have bothered to study the relevant documents of international law. Thus, as late as 19 July 2007, Nord Stream Director Dirk von Ameln told the main Swedish evening TV news programme Rapport that the seabed pipeline could not be prevented as the right to "innocent passage" is laid down in international law; thus the pipeline "is to be permitted like any ship sailing by". Unless this absurd statement was wilful disinformation, it shows that Mr. von Ameln, even after years of work on the project, had yet to take a look at the United Nations Convention on the Law of the Sea (UNCLOS).

Article 79 of this Convention stipulates that all states are entitled to lay pipelines on the continental shelf "in accordance with the provisions of this article". The first of these provisions states that the coastal state may not impede the laying of pipelines on the part of foreign countries, subject to the right of the coastal state to take reasonable measures for i.e. the prevention and reduction of pollution from the pipeline. A second provision declares that the *delineation* of the course of the pipeline must be approved by the coastal state, while article 80 gives the coastal state carte blanche to veto any installation (such as the "service platform" which Nord Stream tells us is a vital part of their project).

Thus, the general principle of entitlement to lay pipelines is severely restricted by important exceptions which the *Nord Stream* 



*Company* and their *Gazprom* majority owner should perhaps have studied much earlier.

A second mistake made by the *Gazprom/ Nord Stream* people seems to have been their failure to realize that environmental concerns are strongly supported in Sweden. This means that pollution risks that may seem insignificant to Russians, and perhaps also to some Germans, carry a considerable weight in a different cultural context such as that of Sweden. This, of course, affects the Swedish interpretation of what constitutes "reasonable measures" to prevent pollution.

In fact, the Baltic Sea is exceptionally sensitive: a very shallow sea of brackish water, with an extremely limited water circulation with the North Sea/Atlantic Ocean. This means that the consequences of the release of any pollutants would be much greater than in other deeper water courses with open access to the oceans such as in the North Sea. The pipelines will be dug into the seabed for parts of the stretch, where the top layers of soft clay contain numerous pollutants such as phosphor and heavy metals, and then there are the tens of thousands of tons of submerged chemical munitions that were dumped by the Russians after World War II.

A prominent expert in aquatic toxicology, Professor Bengt Erik Bengtsson, recently stated that the Baltic seabed project is a "gigantic environmental experiment". From a layman's perspective it nevertheless seems obvious that the whole project will be inherently difficult to carry to conclusion without the emergence of risks deemed unacceptable by the Swedish public, and ultimately, would it seem, also by the Swedish government. Indeed, the International Court of Justice in The Hague would likely, if the case be brought there, interpret UNCLOS firmly in the light of today's raised levels of environmental awareness.

Obviously, the most "reasonable measure" to prevent pollution of the Baltic Sea is to ask the applicant to explore the option of laying their pipelines on land, as Russia and Germany have done thus far. In fact, parallel to the present Yamal 1 pipeline through Belarus and Poland the ground is already prepared for a second pipeline, Yamal 2. *Nord Stream* has as yet not been able to explain why they prefer the more expensive Baltic seabed route.

Of course, the Poles have not been slow to air their view that the real reason relates to Russian power politics. Moscow wants to be able to put pressure on them by cutting off gas deliveries without them having any means of applying counter-pressure by, for instance, controlling the flow of Russian gas exports to Germany. It seems likely that Estonia, Latvia and Lithuania hold similar views, even though most of their public comments have been quite guarded thus far.

By Krister Wahlbäck krister.wahlback@foreign.ministry.se



# **Global North Atlantic Fishing**

Internationalization and globalization are not new concepts in the West Norden region, i.e. Greenland, Iceland, the Faroe Islands and Western Norway. Fisheries have been a key activity in this region for centuries, and the market for fish has been global just as long.

The production of salted and dried fish has helped create and sustain wealthy communities since medieval times, with the Mediterranean countries as the major markets, but with South America and Africa emerging as new options in the 20th century.

Technological developments in the global transportation of frozen products undoubtedly moreover contributed to the maintenance of this position after WWII and on into the latter part of the 20th century.

Since the 1970s, however, the historical position of the West Norden region has been increasingly challenged as the fisheries industries in other parts of the world have also gone global. While global harvesting of crustaceans and demersal and pelagic marine life has increased, from 11.5 million tons in 1950 to 66.6 million tons in 2005, the West Norden share of this total has been reduced from 15% down to 7% while the 6-fold increase in the total global marine harvest has had consequences for world market prices. Indeed, by 2005 the market price for fish had been reduced to 70% of the price in 1975.

Other challenges have also emerged. The resource base of the North Atlantic is fluctuating due to natural variation in currents and sea temperatures while in several instances fish stocks have been threatened by over-fishing.

While the global price problem is basically unmanageable, the challenge of over-fishing has been addressed through regulatory measures. The introduction of the 200 mile EEZ in the 1970s enabled a national focus on maintaining a healthy fish stock, while international agreements regarding the management of migratory stocks in the 1990s have limited the potential for human-induced catastrophes. The "Law of the Sea" and a number of inter- and supra-national organizations such as ICES (International Council for the Exploration of the Sea) have also helped to increase the viability of marine resources.

These ongoing changes have not however totally wiped out the fishing industry and the fisheries-dependant communities of the North. The actors across the North Atlantic region have long understood the challenge facing them while continuing to focus on what is important, namely, continuing the global marketing approach, and doing it by means of very different national approaches.

### The advantage of early adopters

With the dwindling of fish stocks the potential to 'farm' fish became ever more attractive. Fish farming is not a novelty. Worldwide farming of fish in ponds and cages has occurred for centuries. But large scale production in a more industrialized form in open water cages was something new in relation to the global market. And it enabled the fish farmers to focus on high quality and high value species such as Salmon. Consequently, fish farming was grasped as an important alternative – or rather addition – to traditional fishing.

In the North Atlantic region Norway and partly also the Faroe Islands, given the existence of certain favourable conditions, were early adopters here. The farming of Salmon in cages in sheltered fiords where currents could provide a good production base gave some obvious advantages, including that of making use of the relatively warm waters of the North Atlantic flowing up the Gulf Stream.

As shown in figure 4, commercial seafood farming has increased from a level of 100,000 tons in 1950 to more than 50 million tons today. China has always been the major player in this industry, but Norwegian farmers managed to position themselves positively at an early point in time. And by being early adopters the Norwegians were able to take advantage of the initially high prices for farmed products, primarily salmon. As shown in figure 2, global production of farmed salmon took off during the 1980s, and has been expanding ever since.

Currently however the industry is in the doldrums as the current price level of

farmed salmon is down to half that which could be obtained when the industry first emerged.

During the first three decades of the industry's development Norway dominated global production figures but over the last decade it has been challenged by an array of new entrants to the market.

The primary challenge has come from Chile, where the same favourable natural conditions as those in Norway exist, and where production costs are substantially lower. Moreover, during the next decade Norway's position will be challenged further, and its position as lead producer will undoubtedly be lost.

In this light then instead of continuing as a direct producer, Norway is currently in the process of positioning itself as a global producer of equipment for fish farming. While in both Norway and in the Faroe Islands increasing focus on alternative species has evolved in an attempt to once again take advantage of early adopter-status in relation to a high value activity.

The competition today is however much fiercer today as compared to 40 years ago. In addition, the competitive advantage of being situated close to the resources seems to have diminished, as it is generally acknowledged that there is a need to bring these activities out of the region and towards the global centres of activity where labour costs are lower and environmental concerns less pressing.

### Consumer and market interaction

The fisheries sector includes much more than just fishing. The development of new methods and especially the development of new types of equipment, in response to changes in the production line from sea to consumer, have been the key characteristics of the fishing industry in Iceland.

When the processing of fish moved onboard the trawlers themselves Iceland was among the first to develop processing, scaling and packing equipment which could work under the rough conditions of a North Sea gale. And when the market demanded fresh products, again companies in Iceland provided tanks



Fish farming may become an important survival strategy for many small communities. Here the village of Trongisvágur in the Faroe Islands



Production of salted products for the Mediterranean marked in the Faroe Islands.



Royal Greenland trawlers in Nuuk







Cages for aquaculture. (Faroe Islands)

suitable for the transportation of chilled products as well as ship-to-shore communication systems which could provide the producers with precise market information, and the marketing sector with precise information regarding the status of the catch. Consequently these changes in the fisheries industry have been followed by the parallel development of a new industry focusing on the production of equipment for fishing and processing, thus providing new jobs and income opportunities in the region.



Figure 1\*: World shrimp fisheries and coldwater shrimp fisheries 1950-2005. Source: FAO, 2008.



Figure 2\*: Development of salmon farming activities 1950-2005. Source: FAO Fishstat, 2008.



Figure 3\*: World catch of coldwater shrimp 1950-2005 (%). Source: FAO Fishstat, 2008.

Being able to "read" the market and thus respond quickly to consumer's demands has also been an important factor in the marketing of fish products. Since the 1980s Greenland, through the Home Rule owned company *Royal Greenland*, has been the key player in connection with the production of coldwater shrimp.

In 1990 their market share of this product was around 25% thus ensuring that they were one of the major players in this industry. The market for shrimp, however, was confronted by a huge increase in the production of warm water shrimp, and a concomitant increase in the production of farmed shrimp. Consequently the world market price of coldwater shrimp was reduced to less than a third of its pervious value within a few decades.

Like most other fishing companies in the North Atlantic region *Royal Greenland* had also based their production model on the bulk production of fresh or frozen products with limited processing taking place.

Consequently, they were hit by the fact that maintaining high value production required 'value adding' through a higher level of processing. Moreover, when moving from bulk to 'value-added' products, producers need to remain in close contact with the market.

Even though the internet and other modern means of communication boast of diminishing distance, this is a field where distances actually matters. It may seem to be an anachronism to focus on "being there", but maintaining a precise sense of the changes in market demands and customer habits is a chal-lenge, and requires personal involvement.

Consequently *Royal Greenland* started acquiring processing capacity within the European market, for instance by buying up capacity in Denmark and in Germany. It enabled the company to remain in touch with these changing demands, and – at least for a while - positioned the company among the worlds 10 largest producers of seafood products.

### Involvement in distant fisheries

When resources are dwindling or market prices plunging a potential objective for fisheries-dependent communities and companies would be to look for resources beyond their own region. Distant water fisheries have been an option which Iceland has followed for several decades, in order to maintain its high level of fishing activities.

Initially the targets have been the sea areas close to Iceland, for instance the "loop-hole" in the Barents Sea, and the "loop sea" between Greenland, Norway and Iceland though fisheries opportunities in other continents, for instance in Africa, have also been pursued. Around 25% of the value of the fisheries industry in Iceland stems from distant water activities, providing the basis for the generation of extended revenue beyond the limitations of local resources.

The long term viability of these activities is, however, determined not only by the agreements which can be made with the owners of the resources, but also by the fact that the stock limitations render this approach a time-limited activity at best.

A new alternative has thus emerged in the context of involvement as a supervisor and manager of activities in a development perspective, and here Iceland has managed to establish a favourable position for itself.

For example, since 1998 Iceland has hosted the United Nations University Fisheries Training Programme (UNU-FTP), which offers training in various areas of the fisheries sector to practicing professionals from developing countries. The programme assists developing countries in promoting fisheries as an important role in the national or regional economy, including the development of an export-oriented fisheries sector.

### Next steps?

Distant water activities and the supervision of new economies in their endeavours towards the development of their own activities may address the problem of industry sustainability in the short term but may not be enough to create a more permanent solution ensuring sustainable economic activities in former fisheries dependent communities.

Similarly it can be questioned to what extent the companies and the products involved in this global rebranding process are losing their 'North Atlantic identity', and to what extent further development is based on the interests of the region, or more prosaically, on the interests of the companies themselves on the global market. Undoubtedly however this new global approach has bought the region some time to think through what its next steps will be.

\* All figures are based on data from FAO Fishstat database.

\* Calculation of change in price level from 1975 to 2005 based on export prices according to Fishstat and regulated according to changes in consumer price index for fish products.

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Figure 4\*: Farming of Fish, Crustaceans and Molluscs from 1950 to 2005. The graph includes the 10 countries with the highest production. Please note the logarithmic scale. Source: FAO, 2008.

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# **Potential Nordic population 2030**

The population of the Nordic countries will have increased by almost 10 % in 2030 as compared to that of today. Moreover, further concentration of the population to the urban and metropolitan areas will continue to influence population development. The family will play a more important role, with higher fertility and nuptality rates. Obesity and increased socio-economic polarisation will however lower lifeexpectancy. The Nordic countries will also have to face up to the emigration of persons with an immigrant background as a consequence of failed integration policies. Problems with labour shortage will persist due to imperfections in the workings of the labour market.

What will the demographic situation in the Nordic countries look like in 2030? This scenario takes its point of departure from the recent *Nordregio* report *Demographic Challenges to the Nordic Countries.* The scenario described here points to several positive aspects while also highlighting some negative trends. The main point here is however that the so-called "demographic challenges" so often discussed at the rhetorical political level are not really about demography at all, but actually relate to imperfections in the workings of Nordic labour markets.

### Growing populations

Contrary to the current alarmist concerns in respect of a focus on declining populations, the populations of the Nordic countries will have increased by 2030. According to the projections made by the national statistics offices, the Nordic population will increase by 9.7 per cent as compared to current levels.

### Populations in million inhabitants

Country	Present	Projected 2030
Denmark	5.4	5.7
Finland	5.2	5.4
Iceland	0.3	0.4
Norway	4.6	5.4
Sweden	9.1	10.1
Total	24.6	27.0
Source: National Sta	tistics Offices	

A population projection made by *Nordregio* shows that the total population of the Nordic countries will increase to 30.3 million, with an annual growth rate of approximately 0.4%.

### Population concentration

We will also see a geographical concentration of the population to metropolitan and urban areas in the coming 20 years. Rural and peripheral parts of the Nordic area will have to face up to declining population levels, while urban and metropolitan areas will experience a population increase. In sparsely populated areas depopulation will become a reality. The Nordic regions currently showing a negative population development will, by 2020, have decreased and this decrease, in general, will smooth over time.

To put this polemically, there will be more people and cities and towns will continue to grow in the shaded "population corridors" (see the map). Outside these "population corridors" population decline and depopulation will be a fact of life. By 2030 the mountains and valleys of Norway will be touristresorts. Hardly any Finns will live in the woods. Northern Finland will be as depopulated as Northern Sweden. As the old people in Northern Sweden die out, so will the towns and villages in the inland areas.

### Higher fertility rates

The retreat of the welfare state, with social security systems supporting us 'from the cradle to the grave', has led to a revival of the family. As a result, fertility rates will increase as compared to the current levels. An increase in nuptality (the marriage rate) can also be expected. The coming generations will likely display preferences other than those chosen by the 'baby-boomers' from the 1940's in respect of family and children.

Since the 1960s we have seen a regional convergence in fertility rates across the Nordic countries. Around 2020 this convergence trend will be replaced by one of increasing divergence in regional fertility rates. To some extent this can be explained by the fact that an overwhelming majority of the population will live in a rather limited geographical area in the Nordic countries.

### Life-expectancy

The Nordic countries have, for a long time, been world leaders when it comes to high life-expectancy levels and low mortality levels. One explanation for this is, in an international comparison, the existence of a well-functioning healthcare system and government subsidies for the real costs of medical treatment.

In 2030 this situation will have altered markedly due to the increasingly polarised nature of socio-economic development and growing problems with obesity. A larger share of the 'real' costs for medical treatment will thus have to be paid by the individual, since taxes can only be raised to a certain level (and that level was reached long before 2030!). The rich will stay healthy while the poor will get sick more often.

### **Emigration countries**

By 2030 it is not just well educated highincome earners who will leave the Nordic countries due to the high tax-burden. Increasingly those with immigrant backgrounds will also have done so due to the discrimination they face and the problems that arise in relation to the imperfect nature of the labour market. The second and third generation immigrants who have invested in tertiary education will simply not accept being unemployed or taking jobs in peripheral or rural parts of the Nordic countries.

Since most people in the Nordic countries speak a Nordic language, English plus at least one other language they are potentially well placed in relation to the international labour market. The large Spanish speaking group in the Nordic countries with roots in Latin America will probably be more welcomed in Spain; German speaking persons will be welcomed in Germany and Austria etc. North America and Australia will also open their doors to new - and highly qualified - labour. These countries can, and will, be able to pay for this labour. The failure of integration policies in respect of persons with an immigrant background in the Nordic countries will be painfully visible in 2030.

Today we already see small migration flows of retired persons from the Nordic countries to Mediterranean Europe and Thailand. This kind of migration will have become common by 2030; pensioners will constitute an economically strong consumer group and will spend their money where they get the most value. Why spend the winters in a miserable climate in the North of Europe when it is possible to relax in the sun?

### Labour shortage

Although the Nordic countries witness a continued population increase labour shortage problems will increase over time. These problems are related to imperfections in the workings of the labour market however, not to an actual shortage - relative or absolute - of persons of working age. Mismatch, low geographical labour force mobility, a segmented labour market, the "insideroutsider" dilemma and the problem of "locking in" a labour force are some of the problems affecting the supply of labour. The effects of the failure to reform the Nordic labour markets at the beginning of the twenty-first century will thus, by 2030, be extremely painful.

Few labour immigrants will by this time move to the Nordic countries. The current trend in international migration will be the norm in 2030: short-term contracts with a temporary stay in the country of destination. After the contract is fulfilled the migrant worker returns to his/her family in their country of origin.

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### **Nordregio Academy**

The Nordregio Academy creates and conducts conferences, seminars, short courses, workshops, study tours and travelling seminars at our own facilities in Stockholm, as well as throughout the Nordic countries and the Baltic Sea region. If you have a specific idea or need, please contact the Nordregio Academy director: Susan Brockett at susan.brockett@nordregio.se to discuss how we might serve you.

### A selection of upcoming events:

In cooperation with Sveriges Kommuner og Landsting and KS-Norge, we will follow up our autumn success with an updated two-session course: Veien til velykkete prosjekter. EU og de nye programmene. Whether you are seeking EU funding or not, the basics of good project design are the same. These basics and further information about strategic structure fund applications will be treated in two sessions, 3 days each. 5 – 7 May at Nordregio in Stockholm and 2 – 4 June in Oslo. Language: mixed Scandinavian, some lectures in English. Fee: SEK 4.000 for all 6 days.

### Second homes and local development

This Nordic workshop deals with issues such as: the benefits and costs of second home development, strategies, goods and services and the part-time population, lifestyles and the scope of living and working, recreational commodities and conflicts between preservation and exploitation.

17 -18 September, Stockholm Language: English

# RUP: Exchange workshop on regional development instruments. Norway, Sweden and Denmark

Regional development, innovation and sustainability are all aims of the various policy and planning instruments in use. This comparative workshop allows practitioners and policy makers to look critically at their own instruments and generate ideas for future improvement. Preliminary date: 6 – 7 October. Language: Mixed Scandinavian

As part of the International Arctic Social Sciences Association conference, Nuuk, 22 - 26 August Workshop on spatial development in the Arctic With the European Association of Development Agency and EURODITE: Conference on Territorial Knowledge Dynamics: 20 – 21 November

Go to our website, www.nordregio.se to get detailed information about these and other offerings, as well as registration materials.

# **City-challenges in poorer countries**

It is surely no coincidence that as the world has become more urbanised climate change has emerged as the most important global development challenge. In 2007, for the first time in history, fully half of the world's population now lives in cities. By 2030, two thirds will live in urban areas. Some 95% of this projected growth will take place in developing countries.

Urban areas, covering only some 3% of the earth's surface, produce 80% of the world's CO2 emissions while attracting 75% of its energy use. Direct sources of greenhouse gas emissions include the transport of people and goods, the building of infrastructure and industrial production. Among the numerous indirect sources are cooking, lighting, heating and the air conditioning systems in our buildings.

Although cities in the poorer countries historically contribute less to global environmental problems than their more affluent counterparts, this situation is rapidly changing, especially in Latin America and Asia. Here rapid economic growth is increasingly leading to westernized consumption patterns and levels. Those most affected by these trends are the world's urban poor with natural disasters fast becoming their most immediate threat.

The circumpolar North, with its many built settlements and towns, but also major cities where a large part of the population lives, is another "site" exposed to this "new" vulnerability. The security of these settlements is being challenged by the rapidly melting ice, glaciers and permafrost. Coastal settlements are particularly at risk because of erosion in the short term and rising sea levels in the longer term. The building stock, roads, airports and railway lines constructed on melting permafrost also faces the now constant risk of serious degradation.

### Urban sustainability

At the same time certain other aspects of urbanisation provide an opportunity to relieve the pressure on these delicate ecosystems. This has been termed the *urban sustainability multiplier*: high urban living density shrinks *per capita* ecological foot-prints by reducing energy and material needs. Examples of interventions that combine significant benefits for cities in terms of generated revenues with greenhouse gas emissions abatement include:

- high rise buildings' demand for energy is much less than that of suburban family homes. In compact cities infrastructure costs are lower as is land consumption, transport and commuting time, as well as costs and emissions. In dense cities the percentage share of car ownership is much less than in suburbs.

- office buildings and private homes are responsible for 38% of CO2 emissions in the USA mainly due to the use of air conditioning. It is then necessary to reduce energy needs for heating, lighting and cooling of these buildings, but also to increase efficiency in the use of building materials and of the building cycle itself. Technology for passive zero energy and zero carbon buildings, based on improved insulation materials, already exists. Such buildings cost only 5% more than conventional models.

- by promoting increased usage of mass transport systems, pedestrian zones, nonmotorized transportation and the use of more fuel-efficient vehicles and environmentally-friendly fuels, the total volume of CO2 emissions from mobile sources can also be reduced.

- switching from coal to natural gas in power plants, promoting the use of clean energy sources to replace fossil energy and the co-generation of heat and electricity also represent important opportunities. Carbon free energy sources like windmills, solar panels, geothermal energy, combined heat and power-plants thus carry great potential.

### Adaptation to climate change

The determinants of adaptive capacity include the availability of financial resources, technology, specialised institutions and human resources, access to information and the existence of legal, social and organisational arrangements. These assets are scarce in developing countries and smaller cities where, with a proven vulnerability to climate change, investments will likely require:

a "hardening" of the infrastructure systems, including storm drainage, water supply and treatment plants, and
protection or relocation of solid waste

management facilities, energy generation and distribution systems

In addition to efforts undertaken at the global and national levels, local authorities will have to lead in finding their solutions to these global climate challenges. The international development community has barely acknowledged the environment and poverty crises in cities: only a few comprehensive examples of climate mitigation and adaption as such currently exist. What is missing then, in addition to financial resources, is a global overview and a platform for discussions and the



Recent Policy-publication from the Norwegian Ministry of Foreign Affairs

exchange of good practices, as well as normative support for local authorities. **UN-HABITAT** 

As a remedy to this, the UN Programme for Human Settlements (UN-HABITAT) is currently developing a 'global cities and climate change' network. Arctic cities will also be eligible to participate. The objective here is to provide opportunities for local governments and their associations to actively collaborate in global, regional and national networks to better pursue the goals of sustainable urbanization, using climate change as the entry point.

Policy dialogue promotion between national and local governments will be particularly important here in order to create the necessary synergies and links. New tools and knowledge management strategies building on wider co-operation with the UN-family, the World Bank, the regional development banks as well as relevant NGOs and universities and the private sector (insurance companies, associations of builders, building materials manufacturers and contractors) will be made available.

International development cooperation has thus far hardly recognized the urban environment and poverty crises. Anti urban development paradigms still 'rule the roost' intellectually. It is therefore positive that both Norway (MFA) and Sweden (SIDA) are currently considering whether or not to fund the new UN-HABITAT network. This initiative, although still in its infancy, represents a unique opportunity to promote – in an equal manner - the infamous three *e*'s of the global sustainable development triptych: equity, ecology and economy.

(The author expresses his personal views.)

By Erik Berg, Senior Adviser at the Norwegian Ministry of Foreign Affairs erik.berg@mfa.no



## SWE+NO: Regional status quo

Once again there is public debate on regional reforms in Sweden. In the current Conservative-Liberal Swedish government, the ball in this debate rests firmly in the court of the Conservatives. The Conservatives would however prefer the responsibilities of the university hospitals to be centralised rather than regionalised (as proposed in the 2007 White Paper). The other members of the government coalition are however ardent supporters of strong regions, and are proponents of regional reforms as long as the new geography is based on local and regional political initiatives.

At the Moderaterna (Conservative) party congress in September 2007, an overwhelming majority opposed the establishment of a new regional structure during the current parliamentary period, which runs until 2010. Instead, they decided to mandate that the regional reform proposal should be put up as an issue for the forthcoming 2010 elections. The other members of the current government alliance are not however as insistent that the electorate need to have a say on the eventual regional reform proposals. As such then, 2008 looks likely to be a year of simply 'muddling through' before the run up to the 2010 general election campaign starts in earnest.

In January 2007 the Swedish government was presented with a White Paper outlining a proposal for a new regional administrative structure. The proposed criteria for the new regions were that:

• The total number of regions should be somewhere between six and nine, with no region having less than half a million inhabitants

- Each new region should host a university and a university hospital
- The new regions should be delimited by functional labour markets

In June 2007 the government appointed a special coordinator, with the task of being a sparring partner for the current regions (*landsting*) in their evaluation of the regionalisation proposal. The coordinator will present a final assessment of the regionalisation process to the government by the summer of 2008.

The coordinator has surveyed local and regional attitudes to the proposed reform

among some 500 respondents (institutional and organisational), and found that an overwhelming majority of the municipalities and the *landsting* – in excess of 90 per cent - support the main reform issues: the establishment of new, larger administrative regions and a coordination of the territorial organisation of state agencies. The regionalisation debate has thus been boosted by this bottom-up process.

At the regional level, politicians and administrators seem eager to follow in the footsteps of Skåne and Västra Götaland. Those regional parliaments (*landsting*) that have already debated the issue have almost uniformly supported the reforms, and have provided their own proposals on the future shape of Sweden's new regional geography. Of the counties who have already gone through this consultation process only *Halland* and *Jönköping* have proved hesitant in respect of the proposed new geographies, preferring instead the status quo in their part of Southern Sweden.

Status quo also characterises the Norwegian debate on regional and administrative reforms. In late February 2008, the Norwegian government announced that the proposal for a new regional geography in Norway – establishing larger administrative regions - has effectively been called off. The current counties will however remain free to merge in the future - but then on a strictly voluntary basis.

Based on the responses received in relation to the original reform proposal from the counties and municipalities themselves during late 2007 and early 2008, the Norwegian Ministry of Municipalities and Regions issued a new background document which has been submitted for a public hearing process with an April 2008 response deadline.

By Jon M. Steineke, Research Fellow jon.m.steineke@nordregio.se



# **Innovations and region's prosperity**

The concept of innovation is currently to be found at the top of almost every development agenda in the Nordic countries and at the EU level. It is also a core element of numerous regional strategies. The settled key to sustainable economic growth and future prosperity, it seems, serves as a universal tool for any region to use in order to enhance its competitive position within the global knowledge economy.

However 'fuzzy' the concept of innovation may be it undoubtedly requires a solid knowledge base. Consequently regional access to R&D-related investment, private and/or public research facilities, highlyskilled labour in the knowledge intensive industries sector and a favourable production environment, are all viewed as being crucial in relation to the drive for innovative and economic success.

Regardless of the fact that the Nordic countries generally perform well in international comparisons on innovation, competitive innovation poles integrating all those components backed by high-quality cooperation and partnership links are not the rule everywhere. As such, regional innovation endowments, as well as economic structures more generally, remain highly diverse across *Norden*.

From studies already undertaken<sup>1</sup> it is also evident that large R&D investments and/or innovative success do not necessarily yield economic progress and higher growth rates. Despite this trend a recent study<sup>2</sup> points to the fact that innovation is rarely dealt with in a *territorial* manner by innovation policies in the Nordic countries.

If innovation policy, however, wants to play a stronger role in accommodating regional competitiveness and territorial cohesion, it may then need to invest in more regionally differentiated approaches. This should also include further encouragement of alternative types of innovation in regions lacking the potential to compete on the basis of technological innovation alone. Indeed, in relation to the high-tech sector, which is undoubtedly innovative and beneficial to the Nordic countries as a whole, the reality is that this sector actually *directly* benefits only a few regions as is illustrated below. Sweden and Finland are the World's top investors into R&D and the only European countries already exceeding the ambitious Barcelona target for 2010 of at least 3% of GDP to be spent on R&D. In contrast Norway's investment is not even half that of its neighbours. In Sweden, Finland and Denmark roughly two out of three investment shares are funded by the private sector. In Norway and Iceland however, such activities are funded equally from both private and public sources. This financial mix generally corresponds to the composition of actors undertaking the R&D activities though regional variations remain significant (Figure 1).

The reality is that most Nordic capitals and *metropoles* invest in R&D with a public-private blend that matches their respective national expenditure mix but with a stronger emphasis on marketoriented research and development in the private sector.



Figure 1. R&D expenditure and performing sector 2005

A number of important Nordic regional centres with a university however lack sufficient private engagement to effectively complement public R&D investment. Examples here include regions such as Sør-Trøndelag and Troms in Norway, Västerbotten and Uppsala in Sweden and Pohjois-Savo and Pohjois-Karjala in Finland. In contrast, several more peripheral regions attain their expenditure budgets almost exclusively from the private sector. The majority of Nordic expenditure on R&D it should be noted is primarily channelled into a few major regions. Indeed, roughly one third of the Nordic countries total expenditure in this area finances R&D in the five Nordic capitals. In Denmark the capital area receives almost the entire sum of national expenditure in this sector for itself. Adding the large Swedish R&D hubs of Västra Götaland and Skåne to this group



Figure 2 Specialisation in high-tech manufacturing and research and experimental development in natural science and engineering in Nordic labour markets 2005

leaves slightly more than half of the budget to be shared by all other remaining regions. However, some selected regional centres invest a considerably higher share of their GDP in R&D. In Finnish Pohjois-Pohjanmaa (Oulu) and Swedish Uppsala the commitment to R&D in this regard is nearly twice that of their respective capitals.

A major drawback with such international and interregional comparisons based on nominal R&D expenditure volumes, priced in *Euro*, is however that they tend to disregard the effect of variations in real purchasing power across different countries and regions. Research and development is a labour-intensive activity and thus wage levels become decisive in respect of how much research equal amounts of R&D expenditure can finance.

Implying the same high-skilled labour could be made available in any Nordic region if demanded, the same nominal expenditure would probably buy more research in Helsinki than in Copenhagen or, in the other case, more research in Umeå than in Stockholm.

Hence the real value of Danish and Norwegian expenditure on R&D is possibly lower as compared to Sweden and Finland as is the case for expenditures in capital regions. Notwithstanding this however the overall picture described above hardly changes.

The major share of the expenditure which is utilised for research and development is in the high-tech sector with a strong market orientation. Not surprisingly the locational pattern of this industry largely coincides with that of the R&D investments depicted above. When opposing the Nordic labour markets' specialisation in, on the one hand, research and experimental development in natural science and engineering, and on the other, in high-tech manufacturing, a geographical picture polarised along the urban hierarchy emerges (Figure 2).

High-tech innovation poles of scale and strong on both competences (dark blue) are few and are almost exclusively capitals joined by the Swedish *metropoles* and the northern technology stronghold of Finnish Oulu. Alongside these science and tech hubs some additional, considerably smaller poles with rather varying strengths (light blue), can be found in almost every Nordic country.

Contrary to text book geographic theory however few additional scattered labour markets in the periphery and in the vicinity of the hubs succeed in embarking solely on high-tech production (dark red). Moreover, high-tech related stand-alone research of relevant scale (orange) is hardly conducted beyond the high-tech innovation poles disregarding Bergen, Trondheim and Tromsø (Norway), Viborg (Denmark), Kuopio (Finland) and of course Reykjavik (Iceland), all of which house a major technical university.

As is apparent from the discussion above, the potential for Nordic regional economies to develop further in respect of technological innovation, varies substantially. Indeed, many smaller regions will need to find their own paths to prosperity that may not include high-tech specialisation and may in fact profit from embarking upon alternative ways of promoting innovation in, for example, the public service sector or tourism. For those regions then a more regionally differentiated innovation policy would undoubtedly help.

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Both maps can be downloaded free of charge from our homepage at www.nordregio.se >maps & figures >economy & labour market.

1. Cf. for example Hanell, T. & Neubauer, J. (2006). Geographies of Knowledge Production in Europe, Nordregio Working Paper, 2006:3.

2. Hedin, S. et al (2008). Regionally Differentiated Innovation Policy in the Nordic Countries - Applying the Lisbon strategy, Nordregio Report 2008:2

# **Measuring Regional Perform**

The Lisbon Strategy is often defined as the response of the EU and its Member States to the challenges of globalisation. The re-launch of the Lisbon Strategy in 2004, after a rather timid start in 2000, placed much greater emphasis on the need for Europe to achieve sustainable economic growth and provide more and better jobs for its citizens.

The goals of the Lisbon strategy have also significantly influenced the elaboration of the EU Structural Funds Programme for the period 2007-2013. This 'regionalisation' of the Lisbon Strategy sends a clear message: its goals can only be met if each region maximises its capacity to produce economic growth and successfully develops its endogenous regional potential.

Of course, one simply cannot expect all regions to contribute on equal terms to the achievement of the Lisbon strategy as they do not possess the same levels of economic and social potential. In the Nordic countries, the capital city-regions of Stockholm, Copenhagen and Helsinki have acted for many years as the economic engines of their respective countries, highlighting the ongoing process of economic polarisation in those countries.

However, recent trends show that capital regions in Norden are no longer the undisputed winners in terms of economic growth. Figures recently published by Eurostat show that between 2000 and 2005, the regions of Uppsala (4.2%), Hallands (5.0%), Västerbotten (4.4%) and Norrbotten (3.9%) all had an average yearly economic growth superior to that of Stockholm (3.7%). Similar patterns can be found in Finland where no less than 11 regions are currently outperforming Helsinki (Uusimaa region).

In spite of this, it is easy to see that the capital regions remain the main contributors to the various national efforts in respect of economic growth due to their larger size. However, the contribution of other regions should not be overlooked, and indeed require a better understanding of how best to support the regional effort to contribute to overall EU Strategy. Moreover, the fact that all EU regions are now eligible for the Structural Funds, the main Community financial

instrument targeted at the regional level, is a sign that all regions should be supported, to different degrees and extents, in order to improve their capacity to adapt to a globalising, rapidly changing economic environment.

Yet, in order to help in the design of better adapted financial instruments, it seems necessary to provide clearer evidence to the policymakers regarding the particular strengths and weaknesses of each region.

Traditionally, regional performance has been understood in terms of economic development, due to both political orientations and limited data availability on other matters. But while *economic* development is undoubtedly an important facet of *regional* development, the latter should not simply be reduced to the former.

Other dimensions, such as the employment structure, the demographic structure or the level of social and educational capital can be decisive elements in elaborating regional development strategies. In order to grasp this complexity of what the notion of regional development actually entails, it is necessary then to develop new methodologies for defining new typologies of regional performance. A recent study, commissioned by the European Parliament and led by Nordregio, provides a possible way forward in this respect.

The scientific solution developed by the research-team uses statistical classification methods applied to a limited set of indicators, enabling the production of a more comprehensive typology of regional performance in Europe. The four indicators analysed highlight a specific aspect of regional development: GDP per capita (economy), life expectancy at birth (demographic structure), educational level (education) and unemployment rate (labour market conditions). The typology is constructed such that the variations within each type of region are smaller than those between them. One can thus suppose that each type of region represents, to some extent, a rather homogenous family of regions.

# ance in Europe

The typology (see map) reveals seven main types of regions in Europe, each showing a particular combination of socio-economic characteristics. For example, the picture in the New Member States, i.e. the countries which entered the EU after 2004, is strongly differentiated.

If many regions belong to the category with the lowest overall performance (Low-1 type in blue), characterised by a low performance in all four indicators, numerous other regions, for instance in Romania, Hungary, Slovenia or the Czech Republic, perform rather well with regard to unemployment, and thus belong to a separate category (Low-2 in light blue). Indeed, some capital-city regions in the New Member States even belong to the highest category (Hig-2 in red). This is the case for both Bratislava and Prague.

From a European policy perspective this suggests that the various families of regions should be supported using an adapted combination of new and currently available regional and sectoral policy instruments.

For the Nordic countries, the picture also remains rather differentiated. The whole of Norway and Denmark (Denmark is considered as a single region here) belong to the highest category; as do the capital regions of Sweden and Finland.

TYPOLOGY OF REGIONAL PERFORMANCE IN EUROPE



However, other Swedish and Finnish regions belong to categories which suggest that they have specific structural deficiencies which should be addressed: the higher unemployment rate in Western Finland and most Swedish regions (Hig-1 in orange); good educational level, but poor on other dimensions, for most Finnish regions (Med-1 in yellow); and high life expectancy, but poor on other accounts, in Norra Mellansverige region (Med-2 in light orange).

Consequently, in the Nordic countries, different regions should be supported in different ways in order to best help them overcome their specific structural deficiencies.

In conclusion, this article aims to highlight, on the one hand, the need for the research community to utilise and develop a broader scientific basis with a view to providing a more relevant evidence base in respect of regional development in Europe, and on the other, the need for the policymaking community to broaden their perspectives on the necessity of utilising a multidimensional approach to regional development strategies.

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<sup>1</sup> The author would like to thank the partners of the study, especially Claude Grasland and Catherine Zanin (CNRS, France), Carsten Schürmann (RRG) and Tomas Hanell (Eurofutures Finland).

For more complete information on the study, the final report is available online: http://www.europarl.europa.eu/hearings/ 20070625/regi/study\_en.pdf

# My globalization.com

Nearly twenty years after "the fall of the Iron Curtain," one can be surprised that the nation-state is still going strong. A theoretical current running through the study of international relations and security during the 1990s was that a fundamental weakening of the nation-state was occurring. Without a consuming contest between two superpowers, the reasoning went, space opened up for new thinking about "a new world society."

The emergence of globalization was one of the main factors both giving rise to, and seeming to confirm, such ideas. With the standard account's emphasis on growing interdependence and the formation of global systems, it has been too tempting to understand what has been going on in terms of a simple equation. Its logic is that the advent of globalization must result in the declining importance and viability of the nationstate. Globalization, in other words, is at the expense of states.

The failure of that account to adequately explain the complexity of what is happening to the nation-state as globalization unfolds is the subject of much of the recent work of Saskia Sassen, Professor of Sociology at the University of Chicago, and Centennial Visiting Professor at the London School of Economics. Two of her most recent books, *Territory, Authority, Rights: From Medieval to Global Assemblages,* and *A Sociology of Globalization,* provide a convincing platform for a thorough exploration of what globalization means.

Her work shows how the nation-state is constitutive of globalization and that, rather than being the helpless victim of the latter's onslaught, it is in many ways redefining itself as a powerful agent of globalization for its own rapidly changing purposes. If some 800 pages of intense analysis can at all be summarized in such a brief review, it is by saying that Sassen argues for an "unbundling" of the intricate inter-relations, structures, systems and power that have characterized several hundred years' of the nation-state's consolidation as the ultimate authority, territory and assemblage. Having done at least some of that unbundling, she shows how

centuries of nationalization of nearly every aspect of human interaction (in one way or another) are now undergoing "denationalization" and, subsequently, "renationalization," as a *driver* of the transformation taking place under the banner of "globalization."

Her strength is that she is able to push the understanding of globalization, not only through sophisticated theorizing, but by referring to empirical material whenever possible. It becomes a vivid adventure in a search to understand what is going on "out there." She describes with poignancy how the notion of analytic borderlands came to her as a result of a psychological collision of different efforts to understand complex systems of interaction from several intellectual and disciplinary directions. Those efforts often led to the perception of completely empty spaces where no previous theoretical approach could suffice, and new ways of speaking about the observed needed to be invented.

A typical example is the labyrinthine complexity of the situation of an illegal immigrant woman working as a janitor for a globally-operating, electronicallybased, finance company, on Wall Street. In that example, to mention only *some* of its aspects, she shows the meeting and mixing of the informal (the janitor working illegally) and the highly formalized (global electronic financial markets) in one of the world's "forty or so" *global cities*. Global financial markets rely on the robust institutions that have been painstakingly constructed and maintained by the nation-state; in turn, those global activities generate new institutions that enter the state at specific and highly localized nodes, the global cities, which bring the global into the local, and at the same time remain anchored to it.

Sassen repeatedly calls for more empirical research, and the attentive reader finds much to dwell on as the reading slows, not from boredom, but from a rush of reflections on potential research pathways. She explores the possibilities for redefining the role and power of regions; she turns on the prospects for understanding how gendered structures contribute particular spins to global networks of NGOs which intertwine the yearnings of individuals with the mandates of global institutions, such as the United Nations. Indigenous peoples and their questioning of borderlands show the way to seeing borders as zones, rather than as lines, and that new territories of associations create multiple boundary lands.

It is no accident that one of Sassen's more significant bows to previous writers is to Deleuze and Guattari, with their development of the *assemblage*, as a "contingent ensemble of practices and things that can be differentiated (that is, they are not collections of similar practices and things) and that can be aligned along the axes of territoriality and de-territorialisation."

Where does all this connect to *my globalization.com*? For me, it is found around a dinner table after a meeting of Nordic experts in Greenland. The other



Sassen, Saskia.

2006. Territory, Authority, Rights: From Medieval to Global Assemblages. Princeton: Princeton University Press. 493 pp. ISBN-13: 978-0-691-09538-7.

2007. A Sociology of Globalization. Contemporary Societies Series, Series Ed. Jeffrey Alexander. London: W.W. Norton & Company. 308 pp. ISBN-13: 978-0-393-92726-9. diners include MPs, representatives of industry and commerce, the administration and the university. The hottest topic concerns the plans for mineral exploitation, including the proposal by a global corporation (with its headquarters sited in a very specific locality in the USA) to construct a huge new aluminium smelter.

One of the biggest questions here is in which of the far-flung communities it should be built, and what the potential effects will be. The minister for economic development enthuses about job creation and infrastructure. A leader of one of the remote municipalities that would welcome the smelter joins in with how those spin-offs would have an even greater effect in his community.

The minister for environmental matters then patiently laments that no matter how much he can identify with the importance of those issues for the future of the economy, he worries about the potential pollution and being able to look his grandchildren in the eye. He could stop the entire project. In the morning, the various experts from all the Nordic countries that have been called to the meeting will fly back home. Greenland is as far from the centres of "the two pentagons"-that American one and that other, European one-as anywhere can be in today's world, but it is at the very centre of globalization. They all need each other.

See also article on Aluminium smelter in Greenland pp 10-11

Book review by Richard Langlais, Senior Research Fellow richard.langlais@nordregio.se



### Some current research at Nordregio

### "LisGo"

The LisGo project looks specifically at the potential for regional policy instruments to contribute to achieving the Lisbon and Gothenburg objectives for growth, jobs and sustainable development. This will be accomplished by analyses of the role that the Operational Programmes for the 2007-2013 period, as regional instruments, play in relation to National Strategic Reference Frameworks and the Community Strategic Guidelines. The study examines all 300+ Operational Programmes in Europe with to goal of seeing whether Cohesion policy and regional policy instruments actually have the potential to deliver on Lisbon/Gothenburg. Nordregio is Lead partner for the LisGo project, which also includes partners from SWECO, ÖIR and EPRC as well as a team of national experts from 16 countries.

Duration: November 2007-October 2008 Client: European Commission, DG for Regional Policy, Unit Evaluation and Additionality Unit Lead Partner: Nordregio Information: lisa.van.well@nordregio.se

### Mobility and Entrepreneurship

Mobility on the Segregated Labour Market? Possibilities and Limitations of Entrepreneurship The health-care sector is an important arena for groups with a weak position on the labour market in Sweden. This project aims at to investigate whether immigrant women take part in the entrepreneurial process that currently goes on within this sector.

Duration: September 2006 - June 2009 Client: Vinnova (DYNAMO 2) Lead partner: Human Geography, Stockholm University Information: katarina.pettersson@nordregio.se

### East-West Window (EWW)

This project aims at the promotion of the territorial integration of North-West Russia and Kaliningrad into the Baltic Sea Region through joint spatial planning and development actions in fields such as business development, transport and ICT development, as well as in sea-use planning and Integrated Coastal Zone Management. Nordregio's role is to support two working groups (one on 'urban networking' and the other on 'transport and accessibility') through the provision of inputs into the discussion process, the drafting of reports and via the assembling of data and other useful information.

Duration: June 2007 - December 2008

Client: Baltic Sea Region INTERREG III B (Neighbourhood Programme) Lead Partner: Latvian Ministry of Regional Development and Local Government Information: peter.schmitt@nordregio.se

### RuDI

Assessing the Impact of Rural Development Policies (RuDI)

The RuDI project addresses the question of how to best assess impacts of rural development policies on all levels and across the great diversity of Europe's rural areas. The research will also analyse the contribution of rural development programmes to EU priorities defined in the new rural development Regulation (EAFRD) and EU Strategic Guidelines. Nordregio's task in the project is to analyse the priorities in rural development policies, undertake rural development expenditure analysis and analyse contrasts between rural policy priorities and expenditure in EU member states, and to carry out case studies in Sweden, Finland and Denmark.

Duration: January 2008 – June 2010 Client: European Commission, DG for Research (7th Framework Programme) Lead partner: Institute for Rural Development Research at Johann Wolfgang Goethe University, Frankfurt, Germany Information: andrew.copus@nordregio.se

# **REKENE - Nordic knowledge economy**



Top row from left: Sara Östberg, Nordregio, Anna Rohunen, Creadis Network, Katarina Pettersson, Nordregio, Margareta Dahlström, Nordregio, Susan Brockett, Nordregio, Jouko Selkälä, Creadis Network, Hjalti Johannesson, The Research Centre of the University of Akureyri, Ari Saine, Oulu South Regional Centre, Anders Larsson, Göteborg University, Katarina Fellman, ÅSUB. Bottom row from left: Henrik Toft Jensen, Roskilde University, Tine Aage, Region Sjælland, Mattias Legnér, Linköping University, Peter Karlsson Östsam, Åsa Rydin Karlstad University, Anders Olsson Region Värmland, Tom Petersson, Stockholm County Council, Office of Regional Planning and Urban Transportation, Brita Hermelin, Stockholm University, Liv Rask Sørensen, Nordland County Council, Marlen Andersen, Knowledge park Bodø, Magnus Thor Ásgeirsson, Akureyri Region Business Agency Photo: Odd Iglebaek

### The Project:

How will Nordic regions seek to develop their knowledge economies? Thus far such issues have hardly been researched, but by 2010 we will definitely know more as a large research programme on *Regional trajectories to the knowledge economy – Nordic-European comparisons (REKENE)* is due to be finalised.

*Norden* has seen many – public and private – initiatives to promote and stimulate innovation. Nordic regions however continue to lag behind the targets set by the EU Lisbon summit. Namely, to increase research, promote entrepreneurship and innovation, increase employment and for Europe to become the most competitive region in the world.

This is the main reason to highlighting the REKENE research-project. In more detail the project will look at knowledge dynamics in the following sectors by focussing on the following regional partnerships.

Food and drink: Region Sjælland and Roskilde University (DK) Information and communication technology: Creadis network Oulu (FI) Knowledge intensive business services: Akureyri Business Agency and The Research Centre of the University of Akureyri (IS) Knowledge intensive business services: Nordland County Council and The National Centre for Innovation and Entrepreneurship (NO) New media: East Sweden Region and Linköping University (SE) Information and communication technology: Region Värmland and Karlstad University (SE) Knowledge intensive business services: Stockholm County Council and Stockholm University (SE) Knowledge intensive business services: Statistics and research Åland and the Government of Åland (FI)

The overall objectives of REKENE is to understand the role and development of knowledge in the regional economies of the Nordic and European regions – in order to inform policies and policy makers – and to make recommendations for future regional innovation policy development in Norden. The project is linked to the 6<sup>th</sup> Framework project EURODITE which facilitates comparisons with 24 European regions.

The REKENE project is organised as a cooperate effort between practitioners and researchers. All together, some 18 different institutions and several firms in the regions studied will be involved. *Nordregio*, the Nordic Centre for Spatial Development, involved in the EURODITE project, is the lead agency. The total budget for the research project is NOK 6.2 million. Finance is primarily provided by the Nordic Innovation Centre (NOK 2 million) and the partners themselves.

For further information see: www.nordregio.se/rekene and www.eurodite.bham.ac.uk