Nordland: Towards a RIS3 strategy

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Nordland background

- Located north of the arctic circle
- 240,000 inhabitants (4.75% of the Norwegian population)
- 36,090 sq. km. (11.8% of the Norwegian mainland)
- Large areas: ocean, islands, mountains, fjords and agricultural areas -> Nordland is a resource driven economy
- Norway’s largest producer of Atlantic salmon and trout
- Norway’s second largest producer of hydro electric power
- Norway’s second largest industrial cluster within process industry
- Oil and gas resources on the continental shelf
- Large mineral and metal resources
- Nordland is an open economy
- Export value in 2012 was 19.5 billion NOK (2.44 billion Euros)
- 98.5% of enterprises have less than 50 employees
- One university and two university colleges (in total 1,000 employees and 10,000 students)
Local, regional and central governance

National level: Parliament (elected), Government

County Governor (appointed)

County Council (elected)

Municipal Councils (elected)

Inhabitants
Nordland County – our main tasks

• Education – upper secondary schools
• Public transportation
• Regional planning and development
• Cultural administration and activities
• Building and maintainance of county roads
• Dental care
• Public health
• Environmental issues
Expectations from the Peer Review Workshop

- We want input how to go further from analysis to strategy and implementation in our region? Which tools can be used?
- Build networks to regions that is relevant to learn from – especially on policy implementation.
- Nordland has a longstanding experience in working in partnership with the industry and other regional public bodies and was one of the first regions in Norway to define a regional R&D policy. Nordland is a proactive region – we think our experiences in policy development together with the industry is valuable to others.
Questions to our critical friends

1. Key stakeholders within the triple helix model have been heavily involved in developing the innovation strategy. How can we ensure that the implementation of the innovation strategy will be equally deeply rooted among these stakeholders – in particular among enterprises and R&D institutions?

2. The analyses indicate that two of the identified clusters (process industry and marine industry) are dependent on global and national STI (Science Technology Innovation) in order to innovate. Is this a problem or a strength? Why? How can we enhance local STI? How can we facilitate the enterprises’ use of national and global STI?

3. We have just started to develop the outcome and evaluation indicators. We would appreciate input on which indicators will be useful for measuring in the concurrent evaluation and ex-post evaluation as well as input on the evaluation process itself.

4. National policy and regulations are in many ways an obstacle for regional development based on exploitation of natural resources. Better coordination between the administrative levels is a precondition to release entrepreneurial inventions. What is your experiences on this and how did you overcome these obstacles?
Nordland’s work on research and innovation – previous experience

• R&D strategy for Nordland 2013-2025
• R&D strategy fund region North Norway, 2013-2016
• Industry specific policies and strategy plans focusing on R&I:
  – Strategy for industrial development – process, mineral and supplier industries
  – Strategy for marin development in Nordland
• Nordland has, together with SIVA (state owned innovation agency), built an infrastructure for innovation through establishing innovation centres (business parks, incubators)
• All of these strategies and policy plans are less than two years old, and useful when developing the new RIS3. The development work involved more than 600 important stakeholders.
• Strategic vision for the future of Nordland:
  Sustainable growth thru innovation
Where are we in the RIS process?

• S3 analysis is carried out by Nordland Research Institute

• Based on this analysis and previous work we have identified three clusters incl. supplier industry with “critical mass”:
  – Process industry
  – Marine industry
  – Experience based tourism

• Over the last two years, Nordland County Council has developed strategy plans for these three industries as well as a R&D strategy.

• We are now in the process of coordinating all documents, initiatives and analyses into an innovation strategy for Nordland.

• We still have to:
  – Take into account the national/international context in a structured way
  – Develop detailed action plans and focus on a limited number of R&I priorities
  – Develop more detailed outcome and evaluation indicators
  – Preparing the budget and identify the possibilities for exploiting synergies with other funding sources
Governance of the RIS3 process

- Nordland County Council (NCC) coordinates the RIS3 process in Nordland.

- Department of Economic Development project manager

- “Partnership Nordland” (public organisations + business confederations at a regional level) is a reference group.

- For the purpose of developing the innovation strategy a number of additional actors have been included and engaged. This includes regional stakeholders like enterprises, higher education and research institutes, innovation centers, regional and local authorities (quadruple helix).

- All strategy plans and policies in NCC need to be approved by the county parliament.
Evidence base and involvement in the RIS3 process

**Involvement stakeholders**

- **Work group:** R&D, innovation centre and NCC (5 people)
  - 8 dialogue meetings with participants representing triple helix (120 people)
  - Hearing round

- **Work group:** Enterprises, central organisations and NCC (12 people).
  - Reference group: Industry, innovation centre and R&D (6 people)
  - 2 dialogue conferences: Regional and national triple helix, politicians (300 people)

- **Resource group:** Public org. incl NCC (7 people)
  - Reference group: NCC, R&D, public org., innovation centre (15 people)
  - 7 dialogue meetings with 150 triple helix people
  - Hearing round

- **Project group:** Enterprises, R&D, innovation centre and NCC (7 people)
  - Dialogue meeting with participants representing triple helix (20 people)
  - 2 meetings with R&D and innovation centre

- **Research team:** Nordland Research Institute (5 people)
  - Survey: 35 respondents (key persons within Triple helix)
  - Two focus group interviews (24 people who are key persons within triple helix in Nordland)
  - One group interview to come

**Analyses**

- **Regional innovation strategy for Nordland**
  - • SWOT (mainly OT)
    - • Comparing Nordland to Norway
  - • Tour d’Horizon
    - • SWOT
    - • Scenarios
    - • Strategies
  - • SWOT
    - • Tourism statistics
    - • Strategies
    - • Action plans
  - • SWOT
    - • Possible models for development organisations within marine industries
  - • Identifying sectors with critical mass
    - • Statistical analysis
    - • Surveys & focus group
    - • GAP analysis
    - • SWOT
Looking beyond our region’s boundaries

- More than 25 years experience in working with international relations on a regional basis
- Extended cooperation agreements with Leningrad Oblast in Russia, Marche region in Italy and Zhejiang provins in China
- Participating in a number of Interreg programs, and transnational regional cooperation organisations
- Lead Partner in Locfood, Interreg program for local food as a driving force for business development
- Cooperation with Swedish and Finnish regions to support transnational learning
- No regional benchmarking vs other regions regarding the RIS strategy process
### Looking beyond our region’s boundaries and entrepreneurial discoveries

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Process industry</th>
<th>Marine industry</th>
<th>Experience based tourism</th>
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<tbody>
<tr>
<td><strong>SMART SPECIALISATION</strong></td>
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<tr>
<td>Innovation within the specialized cluster</td>
<td>Local DUI, Global STI, Regional STI-support</td>
<td>Local DUI, National STI, Regional STI-support</td>
<td>Local DUI, Cluster development, Regional STI-support</td>
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<tr>
<td>Innovation in the supplier industry</td>
<td>User-producer relations. R&amp;D and consultant driven support for supplier development and networking. Cluster development</td>
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<tr>
<td>Entrepreneurial discoveries</td>
<td>Large regional bursts (e.g., solar cell industry)</td>
<td>Driven by strong actors within the cluster (e.g., cod farming and closed cages)</td>
<td>An emerging regional innovation system (e.g., from hotels and restaurants to experiences)</td>
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Looking beyond… continues

**SWOT**

**Strengths and main competitive advantages**
- If disregarding the oil and gas industry, Nordland is more competitive than Norway
- Nordland has 3 global competitive industries, and they are currently developing associated supplier industries
- The enterprises in Nordland (within these 3 industries) has highly developed capabilities to make advanced entrepreneurial discoveries, creating new industries related to the exploitation of natural resources

**Opportunities for future regional development**
- Continue the positive experiences with RIS and cluster development in new sectors
- Introduce the "German model" of education and innovation in the export clusters
- Entrepreneurial discovery and exploitation of new opportunities based on natural resources that are the solution to Norway's strategic problem

**Weaknesses and main current challenges**
- Sector Coordination beyond regional control; limited scope for regional strategies
- "War" between growth and conservation. No national strategy for re-industrialization and sustainable development
- A national labor market that strengthen the “Dutch disease” in Norway

**Threats the region is facing**
- The disintegration of regionally based knowledge continues
- The disconnect between community development and export-oriented industries continues
Main objectives of RIS3

• To build a more sustainable and competitive regional innovation system and improve the R&D capacity in the region based on the needs of the business community

• Enhance the cooperation between R&D institutions and companies to improve innovation processes and results and further develop the workforce competence

• The strategies are based on:
  – Statistical data on demographic development, education, R&D-cooperation, business spending on R&D and innovation
  – Analysis of the regional innovation system carried out by Nordland Research Institute and previously Oxford Research Ltd.
  – Needs defined in the strategy process in close cooperation and communication with the industry
Derived objectives of RIS3

1. Develop a strategic tool to target and prioritize the efforts within regional development and innovation

2. To build a dialogue arena for key triple helix stakeholders, resulting in a continuous learning and discovery process

3. To be part of a network with highly qualified people outside Nordland (and Norway) who look at our region and provide input on our innovation strategy
## Suggested priorities

<table>
<thead>
<tr>
<th>Specialisation</th>
<th>Strategic priorities and measures</th>
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</table>
| **SMART SPECIALISATION** | - Strengthening of relevant industrial and vocational education and local support to R&D and innovation  
                         - Strengthening of identical approach to industrial-oriented and vocational training in the industrial communities  
                         - Regionally adapted development of vocational school (college) models adapted to industrial and strategic requirements (with transfer to university/college education and engineering studies)  
                         - Stronger coordination of courses offered of educational and industrial-oriented means  
                         - Regional strengthening of relevant STI support and availability  
                         - Establishment of local innovation centres (based on model from Finland) which contributes to linking expertise and R&D support to long-term industrial development and differentiation  
                         - Development of global network to universities  
                         - Supplement the strategy for expertise support with focus on more open competition in addition to regional administration  
| Innovation within the specialised core | | |
| Innovation in the supply industry | - Strengthening of User-Producer relations  
                         - Research and consultancy-operated support to supply development and network cooperation. Cluster development. (Example: events industry, oil protection, maritime cluster)  
                         - Remove regulatory innovation hindrances  
                         - Public use of purchasing strategy for supply development  |
| Entrepreneurial inventions | - Regionalised administrative regime for sustainable development  
                         - State contribution to basic investment  
                         - Long-term innovation financing  
                         - Support for weak projects with large potential  
                         - Development experiments for increased regional operations |
Digital Growth priorities

- We have not developed an explicit strategic policy framework for digital growth, but;
- Broadband to all households have high priority. We want inhabitants and companies in Nordland to have access to broadband.
- In areas where there is no commercial market we stimulate private companies to build by using public funds
- We have not carried out a detailed analysis of the needs for digital growth in Nordland, except the plan for broadband development and supporting ICT projects in businesses
- Norway is in general fast in implementing new technologies and have support programmes for this through Innovation Norway. Nordland is in this respect in line with national policy
Why these priorities?

• Having two globally competitive clusters with national/international STI-networks the workforce competence and productivity are critical to stay competitive in the future. Given the fact of lack of engineers, the introduction of the German model in education is therefore crucial for these industries to develop further in Nordland.

• The combination of regional and national R&D institutions in the regional innovation system is necessary to respond to the industry’s needs.

• Building cluster arenas and broadband connections are bridges to overcome geographical obstacles for cooperation within the user-producer connections.
Action plans and budget

• Action plans on three levels
  – Structural level concerning the development of measures to build the regional innovation system and regional R&D capacity (NCC)
  – Industrial sector level on development of various initiatives within companies (Innovation Norway + NCC)
  – Plans for development of educational capacity on upper secondary level in cooperation with the industry (NCC)

• Budgets:
  – Appx. 200 MNOK (26 M Euro) for support programmes and grants from NCC,
  – 100 MNOK from Innovation Norway for grants and loans plus access to national programmes estimated to 387 MNOK – in total 487 MNOK (62.5 M Euro)
  – NCC resources within upper secondary schools
Implementation

- Detailed action plans will be developed autumn 2013
- Non financial support services provided through Innovation Norway and NCC
- Cooperation projects with Innovation Norway, the Ministry for Regional Development and Norwegian Research Council and SIVA on implementation of policies
- NCC facilitates arenas and measures, projects carried out by R&D institutions, Innovation centres and private companies
- Projects in companies are financed by Innovation Norway up to 50% of accepted costs – rest is private investments in development projects
- All projects are reported to NCC or IN before payments to actors
## Suggested measuring progress

<table>
<thead>
<tr>
<th>Follow-up system S3</th>
<th>Indicator area and improvement/management processes</th>
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<tbody>
<tr>
<td>Strategic activities in follow-up of the strategy’s impute areas and results:</td>
<td>Continuation of the GAP analysis and dialogue arenas</td>
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<tr>
<td>- Benchmarking and learning</td>
<td>- Gap analyses</td>
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<td>- Development</td>
<td>- Focus groups</td>
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<td>- Effect evaluation</td>
<td>- S3 Forum</td>
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<td>- Strategic interaction</td>
<td>- VRI basis for methodology experience from S3</td>
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<td>- Regional arenas</td>
<td>External reference development and method experience</td>
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<td>- Transnational learning through participation in EU method development and experience with Smart specialisation</td>
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<td>- Integration of S3 strategies and other regional development networks (Interreg, EU R&amp;D programmes)</td>
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<td>- S3 joint activities in method development in VRI nationally</td>
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<td>Programme-based evaluation indicator system</td>
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<td>- Inputs, changes, results and effects within strategy 3 main focus areas and coordination activities</td>
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<tr>
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<td>- Follow-up evaluation</td>
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<td></td>
<td>- Benchmarking</td>
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<tr>
<td></td>
<td>Development of regional arenas and coordination (sustainability)</td>
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<td></td>
<td>- Development of increased sustainability</td>
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<td></td>
<td>- Establishment of regional development arenas (trial projects)</td>
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<td>- Management dialogue on regionalisation and integration of relevant policy areas</td>
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Nordland self-assessment

Driving economic change through smart specialisation/RIS3

Informal assessment - region Nordland
Summary and next steps

• What is needed (in the short and medium term) to develop and implement a good RIS3 in your region?
  – Cooperation between the business community, universities and public institutions in defining the needs for competence development
  – Building of adequate and competitive training programmes for the workforce in the business and public community
  – Ability to build effective measures to secure relevant R&D capacities in the region

• What support would you need?
  – A national policy that supports the DUI-perspective of business development and invest more in “on the job training” in cooperation with the universities
  – A further regionalization of authority to decide in conflict areas between conservation and development

• How aware of the processes and supportive are your politicians, the regional/national administrations, the business community in your region, your national government?
  – Regional politicians: aware and able to prioritize
  – Regional/national administration: aware but preservative
  – Business community: highly aware but reluctant to invest
  – National government: possibly aware but unable to act adequately
Key stakeholders within the triple helix model have been heavily involved in developing the innovation strategy. How can we ensure that the implementation of the innovation strategy will be equally deeply rooted among these stakeholders – in particular among enterprises and R&D institutions?

- **Why**: We have a broad partnership, but sometimes it lacks interest, tools etc. to ensure implementation of strategies.

- **What has been done**: Typically the county council has taken responsibility to implement a lot of the strategies.

- **What worked**: Money works… Loose partnership agreements doesn’t

- **What did not work**: Process with the partnership without money as a tool to make things happen.
The analyses indicate that two of the identified clusters (process industry and marine industry) are dependent on global and national STI (Science Technology Innovation) in order to innovate. Is this a problem or a strength? Why? How can we enhance local STI? How can we facilitate the enterprises’ use of national and global STI?

• **Why**: Access to R&D capacity in the region seems as a critical point.

• **What has been done**: Contributed to the establishment of a university and now we work with plans to develop a stronger technical research institution and a more focused practical education of engineers

• **What worked**: For over 5 years partners in the region worked hard to establish University of Nordland. Regional fund was used and a lot political work to get acceptance in the Government and Parliament.

• **What did not work**: We still do not have technical research capacity over critical mass in Nordland.
We have just started to develop the outcome and evaluation indicators. We would appreciate input on which indicators will be useful for measuring in the concurrent evaluation and ex-post evaluation as well as input on the evaluation process itself.

- **Why**: Adequate indicators are important in targeting the measures and the outcome of them. We need simple indicators to implement them in the daily work

- **What has been done**: We have a yearly monitoring process concerning the overall economy development and specific industrial branches

- **What worked**: Structured interviews of institutions and companies combined with access to company accounts

- **What did not work**: Pure statistical datasampling. Measuring outcomes of networks and R&D projects are difficult
National policy and regulations are in many ways an obstacle for regional development based on exploitation of natural resources. Better coordination between the administrative levels is a precondition to release entrepreneurial inventions. What is your experiences on this and how did you overcome these obstacles?

- **Why**: Projects with effects on land use tends to end up in burocratic processes and in court, as well as differences in priorities between national and regional levels. This leads to unsecure investments and postponements. Lack of support from administrative bodies stops projects.

- **What has been done**: Early discussions with the most important stakeholders, but legislative procedures and differences in priorities are counterproductive.

- **What worked**: Tell us !!

- **What did not work**: Lack of early contact with the stakeholders.
Questions to our critical friends

1. Key stakeholders within the triple helix model have been heavily involved in *developing* the innovation strategy. How can we ensure that the *implementation* of the innovation strategy will be equally deeply rooted among these stakeholders – in particular among enterprises and R&D institutions?

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