



NORDREGIO

Nordic Centre for Spatial Development

NORDREGIO POLICY BRIEF 2016:6 • PUBLISHED DECEMBER 2016



Green transition in Nordic regions: State of play, practices and needs

Promoting green transition and building greener economies is currently high on the policy agenda in the Nordic countries. But how can we make it happen in practice? To answer this question, Nordregio went directly to those working with green growth at the regional level. We asked them about the main challenges that impede green growth in Nordic regions, and sought their ideas about potential ways to overcome these challenges and drive the green transition forward. These responses were then combined with the findings from a national policy review to inform a detailed analysis of the state of play, practices and needs of Nordic regions with respect to promoting green growth. This policy brief presents the findings of this analysis along with recommendations designed to support regional policy makers in their work towards a greener economy.

AT THE REGIONAL LEVEL, the survey results suggest there is great potential for green economy and bioeconomy activities across the Nordic countries. The green growth topics that respondents rated as most relevant were: 1) Renewable energy

solutions; 2) Waste handling and recycling; industrial symbiosis between companies; 3) Promotion/support for green or circular business models, for entrepreneurs and existing companies; 4) Sustainable transport solutions; 5) Primary

production (e.g. the bioeconomy: agriculture, forestry, fisheries).

At the national level, the policy review revealed that the majority of policies aiming to promote the bioeconomy and/or cleantech in the Nordic countries focus

on R&D and innovation as well as regulation issues. Bioeconomy related strategies in Denmark, Finland and Iceland have a strong focus on innovation and entrepreneurship to expand and add value to the bioeconomy sector. In Sweden and Norway there is a stronger focus on research to develop new products and bio-based business models. In the field of cleantech, national strategies have three core focus areas: economic development, the environment and innovation.

Regional perspectives on green transition

Twenty-five public-sector green growth experts working at a regional level across the Nordic Region took part in the study either by completing an online survey or by taking part in an interview. Both research tools focused on challenges faced and potential government interventions related to the implementation of green growth initiatives.

Participants were asked about the impediments to the green transition that they most frequently encountered in their work. It was noted that the issue of sustainability often appears to be secondary to basic economic problems in national “sustainability” strategies, and **priority is usually given to technological solutions that are easy and cost-effective** (to avoid imposing extra costs on businesses). A second critique of national policy was

that it often takes a ‘one-size-fits-all’ approach **failing to take into account localised perspectives**. A **shift from a competitive to a collaborative relationship** between national interests and regional perspectives was seen as a key strategy to address this.

From a market perspective, **uncertain future demand/unstable operating environment** was thought to inhibit investment in new green solutions. This is particularly relevant when it comes to market entry and pilot projects. Pilot project stages, including technology verification and demonstration, often require large investments, while at the same time being associated with high risk. There is also a need to **streamline licensing processes** to reduce time and costs for launching a new technology. Given the highly competitive environment, a streamlined approach to licensing will help biotech companies (particularly start-ups) when it comes to getting their products onto the market.

Collaboration was also highlighted as an area for improvement, with participants citing a **lack of industry networks** as well as **insufficient communication** between research, business and public sector actors as challenges to be overcome. The absence of this cooperation is a major barrier to identification of new projects and value chains within and across sectors. **Ineffective public procurement policy** was also a source

TOP 5 CHALLENGES encountered by regional green growth experts

1. Policy and legislation
2. Finance and funding
3. Stakeholder communication
4. Market development
5. Education and skills

of frustration. Public procurement was seen by many participants as having great potential to drive green growth development through active policy that gives priority to green solutions. Finally participants spoke of **insufficient exploitation of the existing competence base** in green industries. There is a need for a stronger focus on educational programmes, research cooperation and participation in international research programmes to ensure that skilled workers are available with the right competencies to develop green growth industries.

Participants were also asked to give their suggestions for government interventions that would drive the green transition forward. The most common recommendations included:

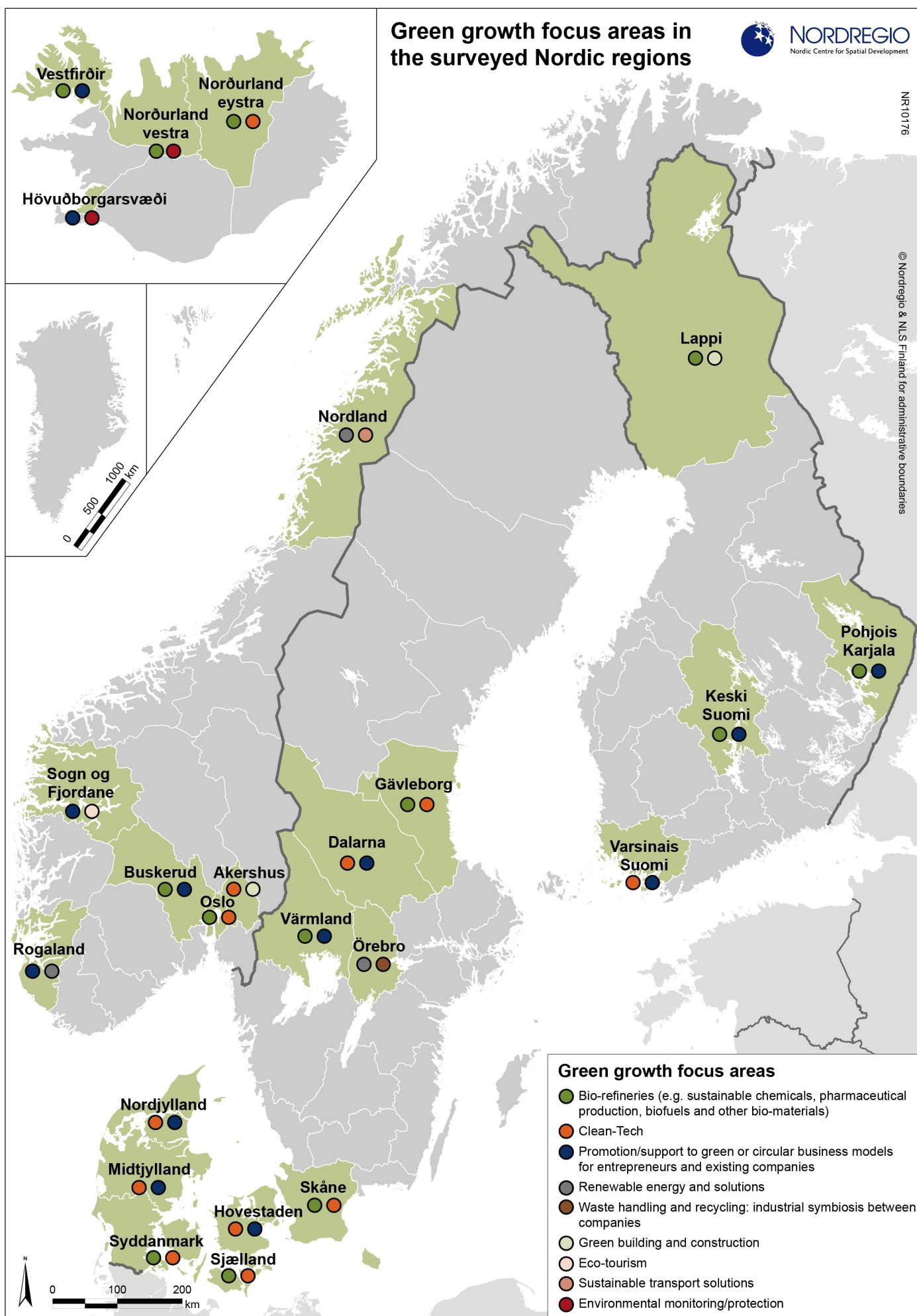
- Strive for green growth at the lowest possible cost to businesses.
- Support technology verification and demonstration.
- Foster start-up and new business development.
- Stimulate demand for environmental technologies.
- Create a stable and predictable operating environment through coherent policies and long-term funding schemes.
- Support cluster development and other activities that encourage cooperation between actors across niches and sectors.
- Ensure the competence base of green growth industries.

Participants were also asked to describe the key green growth areas that are in focus within their region. Their responses are shown in the map.



BENJAMIN SUOMELA

Green growth focus areas in the surveyed Nordic regions



Map: Green growth focus areas in the surveyed Nordic regions; Cartographer: Julien Grunfelder

Policy recommendations

Based on the findings from the survey, interviews and policy review the following interventions to support the transition to a green economy at local, regional and national levels in the Nordic countries have been identified:

■ **Integrate green growth objectives into national and regional development strategies** (rather than creating stand-alone strategies). This will enhance policy coherence and certainty and help create a favourable milieu for private sector investment in long-term green projects.

■ **Develop a coherent framework for green public procurement** that goes beyond environmental criteria and also considers social and economic impacts. For example through the principle of “investing instead of recompensing”, aiming to leverage local resources and maximise investment in peripheral areas to achieve development (rather simply just handing out development grants).

■ **Facilitate inter-sectoral linkages**, for example, between different industrial sectors, the public and private sectors, old industrial businesses and start-ups.

■ **Promote place-based marketing** as a tool to build momentum and interest around the green transition process, based on regional/local resources.

■ **‘Green’ the school curriculum** at different educational levels. This will help raise public awareness and build competence related to green growth and sustainable development.

■ **Promote innovative green business models** (involving more complex value and production chains) for implementing and marketing eco innovations. Given the complexity of new business models, government interventions supporting their development must comprise a broad mix of policies (beyond a few selected meas-

ures) aligned across national, regional and local levels.

■ **Develop clusters** to support new business opportunities that arise from green innovation projects through, for example, increased (cross-sectoral) cooperation, market development, innovation and competence building.

■ **Build on regional strengths** by focusing on core competitive advantages (i.e. smart specialisation). This may include supporting new innovations, actors and industries but also includes a strong role for existing actors and activities.

■ **Provide economic support** to green innovation and entrepreneurship. Companies working with green solutions have a greater chance of success if they are part of a market that is to some extent created and/or supported by the government, at least initially.

About this policy brief

This policy brief is based on the Nordregio working paper:

Lindberg, G., Johnsen, I. H. G., Kristensen, I. & Teräs, J. (2016). *Developing a greener economy in Nordic regions: interventions to overcome the challenges*. Nordregio Working Paper 2016:4. Nordregio, Stockholm.

The publication is the third in-depth study on green growth under the Nordic Working Group on Green Growth – Innovation and Entrepreneurship and was commissioned by the Nordic Council of Ministers’ Committee of

Senior Officials for Regional Policy (EK-R) for the period 2013–2016.

Further reading/ Additional references

Johnsen, I. H. G. (Ed.), Berlina, A., Lindberg, G., Mikkola, N., Smed Olsen, L. & Teräs, J. (2015). *The potential of industrial symbiosis as a key driver of green growth in Nordic regions*. Nordregio Report 2015:1. Nordregio, Stockholm

Teräs, J., Lindberg, G., Johnsen, I. H. G., Perjo, L. & Giacometti, A. (2014). *Bioeconomy in the Nordic region: Regional case studies*. Nordregio Working Paper 2014: 4. Nordregio, Stockholm.

Research contacts

Ingrid H G Johnsen
Senior Research Fellow
Phone: + 46 76 014 0142
ingrid.johnsen@nordregio.se

Iryna Kristensen
Research Fellow
Phone: +46 763 39 86 45
iryna.kristensen@nordregio.se



NORDREGIO
Nordic Centre for Spatial Development



**Nordic Council
of Ministers**