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Nordic Forest Research
(SNS)

Nordic Forest Research (SNS)

Strategy plan 2014-2017



Photo: Mats Hannerz

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1 Introduction

1.1 Challenges for the forest sector in a Nordic perspective

Nordic forests span large geographical ranges, with correspondingly large ranges in environmental conditions. Thus, the composition of the forests and forestry practices also vary, but there are long traditions of mutual respect, collaborative research and commitment to sharing knowledge among Nordic foresters and forest researchers. Key components of SNS' mission are to encourage, coordinate and enhance Nordic research efforts, raise the international profile of Nordic forest research, and actively participate in European forest policy and research.

The Nordic forest sector faces great challenges, but also exciting new opportunities. Increasing globalisation, new international framework conditions, climatic and environmental changes, rising demands for biomass as a renewable resource and a continuing focus on sustainable development are all imposing needs for greater knowledge and novel approaches. It is also essential to confront the economic challenges facing forestry by strengthening its competitiveness through research and innovation, not only in the Nordic region but also across Europe. These challenges are creating both threats and new possibilities to diversify the forest product and service portfolio, thereby enhancing the sector's profitability and its socio-economic contributions, as follows:

- The global focus on the environment and increasing demand for biomass from forests to replace fossil fuel resources is creating opportunities to develop the value chain within bioenergy and biochemistry.
- National and international environmental requirements will demand the development of ecologically, economically and socially responsible forestry practices and use of wood products in the Nordic countries.
- Social and political changes are raising awareness of the public's needs for the recreational and social services that forests provide.
- Strategic cooperation through the European research arena can strengthen the international profile of Nordic forestry.

These challenges and possibilities provide foundations for the directions and priorities identified by Nordic Forest Research (SNS) in the coming four years, as expressed in this strategy plan. It has been formulated by the SNS board in collaboration with the secretariat, with valuable inputs from external evaluators (Indufor, 2012) and various collaborators and stakeholders from both the Nordic countries and neighbouring areas. In addition, a draft has been distributed for consultation to participants in the SNS-funded virtual Centres of Advanced Research (CARs), network and project coordinators, as well as members of the Nordic Joint Committee for Agricultural and Food Research (NKJ), Nordic Genetic Resource Centre (NordGen), Nordic Energy Research Fund (NEF), Nordic Council of Ministers (NMR) secretariat and North European Regional Office of European Forest Institute (EFINORD).

1.2 Nordic Forest Research today

Nordic Forest Research (SNS) is a co-operating body under the Nordic Council of Ministers that has been a unifying factor in Nordic forest research since its establishment in 1972. Its main objectives are to advance research in multiple, sustainable uses of forests and assist in counselling the Committee of Senior Officials for Fisheries and Aquaculture, Agriculture, Food and Forestry Executive Committee (EK-FJLS) and the Nordic Council of Ministers (NMR) regarding issues related to forests and forest research. SNS initiates and coordinates cooperative forest research activities and contributes to Nordic benefit and political cooperation in both the Nordic region and neighbouring areas by creating networks and procuring new knowledge about forests and forest management. SNS strives to create Nordic synergy within forest research, promote the development of new research fields, and strengthen the Nordic region's role in European and international research efforts. Furthermore, SNS continuously assesses the need for new research initiatives to address current issues, emerging challenges and future opportunities.

2 Vision, mission, and target

2.1 Vision

The Nordic region must consolidate and enhance its position as an internationally leading region for research and cooperative initiatives addressing the multiple dimensions of sustainable forestry and use of forest resources.

2.2 Mission

The fundamental mission of Nordic Forest Research (SNS) is to enhance Nordic benefit by: (1) promoting research collaboration and networks focused on sustainable forestry and use of forest resources; (2) providing reliable, relevant, and current research contributions to Nordic forest policies; (3) being a significant stakeholder in interdisciplinary Nordic initiatives to address key challenges facing the forest sector; and (4) strengthening the Nordic region's position within forest research in both European and international contexts.

2.3 Targets for 2014-2017

- 1 Strengthen research on sustainable forest management, particularly aspects of common Nordic interest.
- 2 Provide research-based policy advice to promote a sustainable future for the Nordic region's forests.
- 3 Strengthen the position of Nordic forest research in European and international contexts.
- 4 Disseminate research results and develop communication activities that increase the interplay between research, industry, and politics.

3 Strategic position

Strategic initiatives are essential to meet the challenges faced by, and emerging opportunities for, the Nordic forest sector. These initiatives should build on research networks in the forest sector and both Nordic and European interdisciplinary co-operative activities. For these purposes, SNS will extend its

position as a network-based organisation with a high scientific profile, and enhance connections between researchers, developers, compilers of information and policy-makers within the forest sector. In addition, SNS will strive to consolidate its position through interactions with other stakeholders within EK-FJLS. As described below, four main tools are (and will be) used to achieve these goals: funding, coordination, formulation of policy advice, and communication.

3.1 Funding

Funding research networks and projects is a fundamental component of SNS activities. The funding is primarily intended to foster Nordic benefit and synergy within forestry-related research fields, but also to promote cooperation between forest researchers, those engaged in related research, and participants in interdisciplinary activities. It enables individual Nordic researchers and research groups to create academic networks, develop projects, and unite national efforts to contribute to larger-scale Nordic efforts. SNS will help these researchers to attract funds from other sources and encourage them to apply for funding nationally and internationally. SNS will continue its practice of linking Nordic funds to larger national and international co-finance sources. SNS will strive to increase its opportunities for, and success in, attracting external funds from national, European, and other international sources to finance the activities it supports. The external funds will be strategically and synergistically used in conjunction with the basic funds from the Nordic Council of Ministers.

3.2 Coordination

SNS coordinates networks and research projects that generate results and synergy that cannot be obtained by national efforts. SNS is the most important stakeholder in Nordic forest research and its major strength is in fostering networking. A key goal is to maintain and enhance key characteristics, which include flexibility, coordination and long continuity. SNS will also strive to maintain its effectiveness as a non-bureaucratic, highly professional organisation. SNS will continue to support and coordinate research-based education in forests and forestry in the Nordic region, in cooperation with the NOVA University Network, and extend cooperation with a number of Nordic and North European research stakeholders, including EFINORD. SNS will also continue to work actively within the EU Strategy for the Baltic Sea Region (EUSBSR) framework, advance Nordic and Baltic forest research, and enhance collaboration with neighbours of the Nordic region to the west, northeast and Arctic. On European and international levels SNS will continue to coordinate Nordic interests in EU framework programmes, participate in relevant European Research Area Networks (ERA-NETs), and maintain continuous contact with relevant international organisations, such as the International Union of Forest Research Organisations (IUFRO) and International Boreal Forest Research Association (IBFRA).

3.3 Policy advice

A major part of the SNS mission is to provide sound policy advice to the Nordic Council of Ministers based on results from SNS-supported research networks and projects, as well as from targeted statements. In this respect SNS acts as a unique hub, linking research and policy. Thus, maintaining visibility to officials and politicians, for example by arranging meetings and excursions, is essential. SNS also provides an arena for researchers and politicians to exchange views and ideas. Research findings with practical implications are communicated to decision-makers and officials in clear, targeted formats. SNS also assists EK-FJLS and NMR by providing advice regarding issues related to forests and forest research, creates awareness about

current forestry issues, and suggests new priority areas for Nordic cooperation. Efforts will be made to maintain, and enhance, all of these activities in the coming years.

3.4 Communication

SNS is a centre for research-based knowledge about sustainable forest management in the Nordic region and has a particular responsibility to communicate research results and policy advice to relevant target groups, including collaborating Nordic researchers, decision-makers, industrialists, and relevant authorities. SNS facilitates communication between researchers and policy-makers by providing numerous meeting places and information pipelines, including its website, newsletters, research portals and social media. SNS has strong communication platforms in its two internationally established scientific journals (*Scandinavian Journal of Forest Research* and *Wood Material Science and Engineering*), which provide high-profile publishing outlets for Nordic researchers. In the period covered by this strategy document, SNS will strive to reinforce connections between researchers and policy-makers by communicating syntheses of research results to decision-makers and others involved in relevant political processes, exploiting as fully as possible the diverse media that are now available.

4 Strategic focus areas

The primary goal of SNS is to initiate and foster efforts to optimise the use of Nordic forests, forest areas, and wooded areas in urban environments. Moreover, other important goals are to assist in optimisation of the forests' social functions and non-commercial values, as well as the use of wood and other forest products.

In the strategy period covered by this document SNS has three thematic focus areas within forests and forest research: bioeconomy, the climate and social aspects. The strategic focus areas do not stand alone, but are based on the three, interlinked dimensions (economic, ecological and social) of sustainability. They are all core elements of SNS activities, and are highly related to the challenges faced by the Nordic Committee of Senior Officials for Fisheries and Aquaculture, Agriculture, Food and Forestry (EK-FJLS).

4.1 Bioeconomy

Main challenges

The world needs renewable biological resources to replace fossil sources of materials and energy. Thus, the Nordic countries are strategically focusing on bioeconomic initiatives to create a more innovative economy with minimal harmful emissions. This will require the synergistic development of sustainable forestry, agriculture and fishery, food safety standards, and sustainable use of renewable biological resources, while enhancing biodiversity and environmental protection.

Nordic strengths

The Nordic countries have rich forest resources and a strong tradition of research related to wood and wood products, which provide robust foundations for the long-term development of innovative forest products and materials. The Nordic countries are all supporting national efforts that can jointly secure research on the forest's potential for sustainable biomass production. This drive is supported by the Nidaros Declaration (agreed by the Nordic Council of Ministers in 2012), the Nordic Bioeconomy Initiative (established in 2013) the programme for the Icelandic Presidency of the Nordic Council of Ministers 2014

(which includes funds for activities designed to promote bioeconomic development in 2014-16) and the EUSBSR Horizontal Action *Sustainable Development and Bio-Economy*.

Nordic benefit

The bioeconomy theme is a focal umbrella for related research activities, collaborative initiatives and development in both SNS, the Nordic region, and internationally. Nordic forests and forestry will be primary sources of material and energy for the future bioeconomy, both locally and globally, through a strong, increased focus on biomass as a sustainable resource. To optimise these efforts the forest sector needs to enhance its cooperation with other sectors and inter-sectorial initiatives can be improved through joint, concrete projects with the agriculture, energy, fishery and environment sectors. Joint Nordic research and innovation is one of the engines required to drive the transition from an economy based on fossil fuels to a sustainable, bio-based, more socially and ecologically aware economy.

4.2 Climate

Main challenges

The climate affects forests in numerous ways, and the Nordic forests are important as CO₂-absorbers and for CO₂-storage. However, as the climate is expected to change substantially in coming decades, genetic improvements and greater knowledge of alternative tree species and novel production methods that are adapted to the future climate are required. In addition, globalisation entails increases in international trade, with consequent increases in threats posed by invasive species and pathogens. Moreover, climatic changes pose challenges for practical forestry, notably the anticipated warming is likely to reduce the incidence of ground frosts in the winter and increase the frequency of extreme rainfall events, both of which could complicate felling and other silvicultural activities. Thus, there is a clear need for research (in which SNS will strive to play a major role) on anticipated climatic changes and their likely effects.

Nordic strengths

Climate change is closely related to the condition and health of forests. SNS has established important research activities in this field in both the Nordic region and neighbouring areas. Methodological advances and results from research on trees' climatic adaptations have high applicability for the entire region, as the main commercial tree species are widely grown throughout it and many areas within the region have common characteristics. The Nordic countries are all supporting national efforts to optimise adaptations of key resources, including forests, to anticipated climatic changes. In addition, the Nordic governments have jointly endorsed the Selfoss Declaration (2008), which includes commitments to support aims to develop sustainable forestry in the region, by identifying and implementing sustainable forestry practices to counteract climate change and protect water sources and supplies.

Nordic benefit

SNS has clear interests in promoting research on the effects of anticipated climate changes on both forests and forestry practices, thereby contributing to efforts to secure the sector's sustainability in changing conditions. Strong research efforts can provide essential knowledge about new pests and pathogens, risks posed by invasive species and relevant precautions for both the Nordic region and neighbouring areas. The possibilities for establishing indigenous and other well-characterised tree species in new areas in the Nordic region should be explored. The interactions between forests, forestry practices and hydrological conditions are also crucial considerations in all Nordic countries, and require further analysis as they strongly influence

the growth of trees and other organisms, biodiversity, numerous ecological processes, water quality and various other environmental factors.

4.3 Social aspects

Main challenges

The Nordic forests must contribute to social welfare and both social and health aspects of forest management must be considered in addition to traditional goals to promote sustainable development. This is raising new challenges, partly driven by increasing attention to public involvement and governance, with consequent rises in numbers of recognised stakeholders and changes to traditional decision processes. Hence, ongoing challenges lie in including the public in decisions about forests, equitably handling conflicts in forest management, and developing new decision processes that successfully engage numerous stakeholders.

Nordic strengths

The Nordic region has a long tradition of sustainable forest management based on strong collaborative research and respect for all stakeholders. SNS has contributed to this since its inception by promoting initiatives focusing on urban forestry, social aspects of forest management, multi-purpose forestry and sustainability. Thus, there are strong foundations and vast experience to tap for further enhancing the positive social dimensions of Nordic forests. Notably, recent research has demonstrated the significance of forests for human health, which clearly warrant close further attention.

Nordic benefit

The Nordic countries have different research strengths, particularly in this field, which increases possibilities for boosting synergistic activities. As noted, for instance, in the Selfoss Declaration, forests have local and regional importance for healthy economic development, including income generation from tourism, fishing, hunting and other recreational activities. Furthermore, demands for forest products, goods and services have never been so high and varied. Thus, complex balancing of interests is required that can only be resolved by solid research delivered through stronger Nordic cooperation.

5 Plan for achieving targets

There are four main strategies, each with several components (listed below), to achieve the targets for SNS during the coming four years.

1 Strengthen research of common Nordic interest for sustainable forest management by:

- Funding research networks, projects and facilities with emphasis on the strategic focus areas.
- Funding PhD-level education within the overall area of responsibility.
- Coordinating and actively participating in macro-regional and European projects within the strategic focus areas.
- Coordinating specialisation and division of work to optimise Nordic cooperation and thus maximise Nordic benefit.
- Cooperating in strategic research with the Nordic region's neighbouring areas, around the Baltic Sea and countries to the west and northeast.

2 Provide research-based policy advice to promote a sustainable future for the Nordic region's forests, by:

- Disseminating relevant, current and reliable results from networks and projects to politicians and decision-makers, thereby contributing to the development and implementation of sound policies, declarations, and other initiatives concerning sustainable forest management.
- Initiating politically relevant statements regarding strategic focus areas and new emerging themes.
- Participating in hearings, strategic arenas and agenda-setting fora for forest policy in the Nordic region.
- Continuing to support Centres of Advanced Research (CARs), projects and networks, which will contribute to links between researchers and policy-makers by, for example, writing and communicating policy briefs and scientific position papers that can strengthen the Nordic voice.

3 Strengthen the position of the Nordic region within forest research in European and international contexts, by:

- Being an initiator and stakeholder in Nordic inter-sectorial initiatives within EK-FJLS and the environmental sector, influencing orientations of important research initiatives.
- Initiating collaborative activities with the Nordic region's neighbours to the west and northeast, arctic efforts, and within the EU Strategy for the Baltic Sea Region (EUSBSR).
- Collaborating with EFINORD in the establishment and maintenance of northern European research networks (EFINORD-SNS networks), dissemination activities (NB Forest), and projects within the EUSBSR. EFINORD plays an important role in maintaining the Nordic region's profile and influence in EFI.
- Actively participating in co-operative European research initiatives (ERA-NET and others) and promoting the development of SNS-financed projects and networks into EU projects.

4 Disseminate research results and develop communication activities that will increase interactions between researchers, industrialists, and politicians, by:

- Disseminating information about SNS activities and research results in appropriate formats for stakeholders in the research, industry, and policy-making communities through conferences, websites, publications and social media.
- Developing existing and new meeting points for communication through social media, news portals, blogs, etc.
- Organising seminars, conferences and similar fora for gathering stakeholders, discussing trends, and identifying new values, products, and Nordic identity within forestry.
- Developing the collaboration with, and dissemination of, the two SNS-supported scientific journals.

Abbreviations

CAR	Centre of Advanced Research
EFINORD	North European Regional Office of the European Forest Institute
EK-FJLS	Committee of Senior Officials for Fisheries and Aquaculture, Agriculture, Food and Forestry
ERA-NET	European Research Area Network
EUSBSR	EU Strategy for the Baltic Sea Region
IBFRA	International Boreal Forest Research Association
IUFRO	International Union of Forest Research Organizations
NEF	Nordic Energy Research
NKJ	Nordic Joint Committee for Agricultural and Food Research
NMR	Nordic Council of Ministers
NordGen	Nordic Genetic Resource Centre
NOVA	Nordic Forestry, Veterinary and Agricultural University Network
SNS	Nordic Forest Research