News and Views

from Nordic Forest Research SNS

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Meetings and discussions in the SNS' networks are the foundation for new ideas and extended funding. Photo:Mats Hannerz.

SNS promotes research cooperationa story about networking with high impact

SNS helps researchers in the Nordic-Baltic area to strengthen their networks. The funding received from SNS becomes the seed-money that initiates deeper cooperation and new ideas for wider international projects. Although the funding from SNS is small, it has a large impact since it is multiplied several times by other funding sources. Here is an overview.

Nordic Forest Research (SNS) is a co-operative body under the umbrella of the Nordic Council of Ministers that strives to enhance benefits for the Nordic region and contribute to a sustainable society. This is done by several means, the most important being funding and promoting research collaborations and networking activities.

SNS receives grants from the Nordic Council of Ministers for

its support activities. The funding has been in the order of 6-7 million SEK a year for the last few years. After some additional funding and deductions for administration and communication costs, about 5-7 million SEK is shared among the approved projects and networks.

SNS has basically three types of funding:

Networks

The aim is to increase synergy within forest research and encourage Nordic-Baltic researchers to take part in pan-European and international projects. The funding covers travel and meeting costs, and requires a self-financing component of at least 50%. Network activities are usually funded for 1 or 2 years. Two types of networks are most relevant:

"SNS-EFINORD networks" is a collaboration with the North European

"Promoting networking has been the success story of SNS and it was, by far, the number one success area according to SNS stakeholders."

Indufor, 2012. Evaluation of SNS program.

Regional Office of the European Forest Institute (EFINORD). Calls are usually announced once a year. A requirement is that the networks include at least three Nordic countries and three countries in the EFINORD area (Estonia, Lithuania, Latvia, NW Russia, Poland, Northern Germany, Northern UK, Ireland).

"SNS-NKJ networks" is a collaboration with the Nordic Joint Committee for Agricultural and Food Research (NKJ). The aim is to promote cross-sectorial networking between the agricultural and forestry sectors. Calls are announced more irregularly, the next will be in 2019.

SNS, cont.

On various occasions, special initiatives are launched for network cooperation. One example is the special funding for wood science networking.

Research projects

These cover funding for researchers' salaries, but other financing must cover at least two thirds of the project costs. A project is typically funded to the tune of 100 000-350 000 SEK per year for about three years, and at least three Nordic countries must participate. Calls are usually announced every third year.

CAR

The acronym stands for *Virtual Centres of Advanced Research*. The CAR-concept was introduced in 2004 and some of the CARs are now into their third period. A CAR will focus on a specific field, and will be funded by the SNS for a fixed duration (4-5 years). A CAR-project is strongly dependent on additional funding since SNS covers a maximum of 10% of the CAR-budget.

Read more about networks, research projects and CARs on SNS' webpage: http://nordicforestresearch.org/

From social indicators to fungal DNA

Support from SNS has, over the years, covered a wide spectrum of topics. Traditional forest research such as mensuration, forest regeneration and tree breeding have long-term traditions of cooperation across national borders. However, the forest scene is constantly developing and new problems need to be tackled by researchers. Urban forestry, climate change, social indicators and mycology research are examples of topics where SNS funding has created tighter links between research institutions and countries.

Examples of recent networks

- Wood Science and Engineering (WSE) is an on-going network for scientists in the Nordic and Baltic region. The network has several links to international scenes.
- North European Forest Mycologist (NEFOM) brings together mycology researchers who share equipment and set up joint fungal databases.
- Natural Disturbance Dynamics Analysis (FORDIS) organises conferences and workshops on disturbance and management.
- Nordic Network in Forest Policy Science (NFPS) organises biannual conferences for policy science researchers.

Examples of recent projects

- WOOD-PRO, Valorisation of wood biorefinery products into novel functional hydrocolloids.
- Climate factors and the spread of *Phytophthora* species.
- · Risk assessment of new forest tree species.
- Improving market communication of wood product's environmental study.

Positive evaluation

External experts occasionally evaluate SNS's role, the most recent in 2012. Interviews with 40 stakeholders showed that over 90% of the interviewees were satisfied or very satisfied with SNS. The biggest achievement of SNS has been its ability to create contacts and cooperation in different forest research arenas in the Nordic countries. The projects and networks have helped to develop joint Nordic research infrastructure with benefits for all participating organisations. One example is the database Noltfox, a metadata register of forest research plots, which can be used by all countries to make cross-national analysis.

The evaluators concluded that "promoting networking has been the success story of SNS and it was, by far, number one success area according to SNS stakeholders." and that "SNS should keep on doing what it's good at – bringing people together and enabling cooperation."

SNS finances 2014-2017

1000 SEK. All figures are found in the Annual reports from SNS, http://nordicforestresearch.org/annual-reports/

Result	2014	2015	2016	2017
Incomes				
Funding from Nordic Council of Ministers	6586	6968	7118	7493
Other funding	924	801	543	667
Costs				
Adminstration costs	1657	1413	1985	1693
Grants to SNS EFINNORD networks	1702	1299	1295	1239
Grants to research projects	1085	756	1563	1438
Grants to CARs	1880	1960	2150	2150
Special initiatives and SNS-NKJ networks	148	1411	141	2207
Total funding to research activities	4815	5426	5149	7034

Can biomass be used sustainably?

Two networks supported through the cross-disciplinary cooperation between SNS and NKJ (the Nordic Joint Committee for Agricultural and Food Research) has tackled the potential conflicts between biomass utilisation and sustainability. "BIOSECURE" searched for more comprehensive biomass production models, and "Effects of bioenergy production from forests and agriculture on ecosystem services in Nordic and Baltic landscapes" discussed the effects on ecosystem services.

Models will help decisions

Biomass from agriculture and forests has the potential to be a great option in the transfer to a green economy. Increased utilisation, however, comes with consequences for the environment, climate and society. Taking all effects into consideration in order to make smart decisions requires a broad perspective. "Models for biomass production" was the focus of the recently wound-up BIOSECURE network.

Sector analysis of forestry and agriculture has a strong position in the Nordic countries. Norway, Finland and Sweden have all developed Partial equilibrium models (PEM) with different degrees of sophistication but all integrated with national forest data. The models are known as *NorFor*, *FinnFor* and *SweFor*, respectively. Preparations are under

way to produce a similar model in Denmark.

The aim of the network was to gather researchers in the field of sector modelling in the Nordic countries to map existing competencies and current activities. Three side events at major conferences were held, in Norway, Germany and Denmark. Besides the deeper insights into the development of modelling, the network has also produced proposals for new research projects.

Several examples were presented at the meetings, showing the suitability of Forest Sector Models for studying forest management, biomass availability, industry production as well as the forest products market and how they interact. There are also comprehensive models of the agricultural sector (one example is *SASM*), which need to be integrated into other models. Energy system

models, such as *BeWhere Sweden*, which is used for identifying locations for biobased refineries, also need to be considered.

The different existing models all have their different strengths, but they could be combined to create more comprehensive biomass models. The BIOSECT project has thus laid a foundation for further development.

Network: SNS-NKJ 02, BIOSECT: Sustainable production of biomass – a sectorial perspective. 2015-2018.

Coordinator: Dimitris Athanassiadis, dimitris.athanassiadis@slu.se

Webpage: https://www.slu.se/en/ departments/forest-biomaterialstechnology/research/ongoing-projects/ sustainable-production-of-biomass--asectorial-perspective/

Governance of bioenergy production must have sustainability as a goal

Bioenergy for society is provided from both the forestry and the agricultural sector. Regardless of the source, the utilisation of biomass has impacts on ecosystem services such as carbon balance, water and biodiversity. The SNS-NKJ-supported network has brought together researchers and stakeholders from both of these sectors to discuss how sustainable bioenergy production can be achieved.

Governance systems for bioenergy extraction must be perceived as justified, with broadly accepted

standards, solving the concerns they were designed to address; and this with efficient administrative and financial aspects.

The network arranged two workshops (in Sweden and Norway) and one conference (in Denmark) to discuss the ecosystem services and governance related to bioenergy extraction. Supply chains for bioenergy involve a large number of actors and multiple sectors. Biomass can be extracted from the forest, from agricultural fields or from waste, and it can be utilised in many different forms, for heating, producing biogas, for electricity or for fuel. All use has impacts on environment and society.

The network concluded that bioenergy production cannot be seen in isolation, but must be viewed in a larger context as one of many products from forests and agriculture. Countries and regions all have their own conditions which have to be considered in the governance of bioenergy production. Pragmatic solutions are necessary, with a balance between regulation and flexibility.

Network: SNS-NKJ 03, Effects of bioenergy production from forests and agriculture on ecosystem services in Nordic and Baltic landscapes. 2016-2018.

Coordinator: Nicholas Clarke, nicholas.clarke@nibio.no

New strategy for Nordic bioeconomy adopted

The ministers responsible for sustainable growth held their annual summer meeting in Haparanda, Sweden, in June 2018. One of the outcomes was a bioeconomy strategy for 2018-2022. Fifteen ways to boost business in the bioeconomy were announced.

15 action points

The Nordic bioeconomy strategy includes 15 action points that broadly can be divided into the thematic areas Innovate, Accelarate and Network. The strategy will contribute to and facilitate the development of new and existing value chains, and optimise the opportunities for production and value creation of biomass.



The Nordic ministers for forestry, agriculture and fishing at the Haparanda meeting.

Photo: Receringskansliet, Sweden, From www.norden.org.

The work with the bioeconomy strategy was initiated during the Icelandic chairmanship in 2014 when a bioeconomy panel was launched.

Read more: www.norden.org

Family forest researchers met

The IUFRO-unit Small Scale Forestry assembled 68 people from 16 countries at a 3-day conference in Vasa, Eastern Finland, in mid June 2018. Among the conclusions from the conference: "Various changes in the operating environment of small-scale forestry systems worldwide are challenging small-scale forestry research. Deeper collaboration between scientists and practitioners is needed

to better understand the role of trends and drivers and actions in shaping the socio-technical transitions."

Conference homepage: http://www.uef.fi/en/web/ ssfo2018

Europe's primary forests mapped

A team led from Humboldt University in Berlin has created the first map of Europe's last primary forests, including more than 1,4 million hectares in 34 European countries. The majority of these forests are small, fragmented and interspersed in a human impacted landscape. Finland has the highest proportion of primary forests.

Read more: www.efi.int



Shortcuts

SNS: Apply for project funding

SNS has announced a research project call with deadline 15 August 2018. Projects shall relate to the focus areas of the SNS Strategy Plan: 1/ Meeting the demands of sustainable forest management in a growing bioeconomy; 2/ Maintenance and increased utilisation of ecosystem services.

Read more: www.nordicforestresearch.org

Sweden:

More forest owners live by their properties

New statistics on forest ownership in Sweden dispel some of the myths about the changes in the population of forest owners over the last ten years. The percentage of women owners is not rising, it is still 38 %. The proportion of owners living by their property (in the same municipality) has increased with 2 percent units. And the forest owners tend to become older. The average owner is now 60 year old, and it is about the same for men and women.

Read more: www.skogsstyrelsen.se

Sweden: SLU in strategic partnership

The Swedish University of Agricultural Sciences has signed a strategic partnership agreement with the forest company Stora Enso. The intention is to establish long-term collaboration in R&D, education, competence building and innovation. *Read more:* www.slu.se

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More info about SNS:

www.nordicforestresearch.org

News & Views is a newsletter from SNS containing short, popularized articles covering Nordic forest research and forestry. Articles presenting SNS-supported activities are prioritized. The newsletter is published eight times per year, and is available for download from the SNS and Scandinavian Journal of Forest Research websites.



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