

from Nordic Forest Research SNS



Tuija Aronen: The specific objective of HealGenCAR is to enhance a Nordic research environment by continuing the long tradition in collaboration in forest genetics, pathology, entomology and breeding in the Nordic and Baltic region.

Photo portrait: Teijo Nikkanen. Background: Mats Hannerz

Productive, healthy and adapted forests – target of new CAR

SNS has decided to support five new CARs for the period 2016–2020. One of them is HealGenCAR, a network that brings together competences from genetics, pathology and entomology.

The overall objective of HealGenCAR is to support development and implementation of good practices for use and management of forest genetic resources, as well as pest and disease management.

Why is this network needed?

– In the Nordic countries, forests provide the major source of raw materials for the bioeconomy, and we need to ensure their productivity. However, the sustainability of the Nordic forests is under pressure, specifically due to predicted climate change. We cannot ascertain whether

the trees are adapted to cope with a warmer climate. There is also a risk of increased damage from both old and new pests and diseases, says the CAR-coordinator Tuija Aronen from Luke (the Natural Resources Institute Finland).

She stresses that the future risks can be reduced provided that we learn more about trees' genetic plasticity, the balance between genetic gains and diversity, interaction between trees, pests and pathogens, as well as how suitable genetic material can be deployed at specific sites.

– This CAR will combine competences in genetics, pathology and entomology to support the development of productive, healthy and adapted forests and forest ecosystems, she says.

The work plan for the coming five years includes both specific tasks and

open space for initiatives that arise from the network. Major scientific conferences are planned for 2016, 2018 and 2020.

Joint training and education is an important issue, and annual workshops and training sessions are planned. Examples of topics to be covered in workshops include breeding to counter ash dieback, DNA quantification and sequencing, barcode assays, vegetative propagation, and genetic data analysis.

Continuing a long tradition

Forest researchers in the Nordic countries have a long tradition of cooperation within their specific fields. SNS has previously supported GENECAR, AdapCAR and PATHCAR, networks focusing on



genetics, adaptation and pathology. The new HealGenCAR is a natural extension of these networks, but in a broader context.

– With this wider approach, we have sources of expertise that complement each other. It gives us a stronger basis for achieving the overall objectives of the CAR, says Tuija Aronen.

The activities will start this year, and the core group representing participating institutions from all the Nordic countries is currently setting up detailed programmes and communication channels. A website will also present the outcomes to a wider audience.

CAR: Nordic Centre of Advanced Research in Forest Health and Forest Genetics to Enhance Bioeconomy (HealGenCAR).

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Participants in the core group: Luke (Natural Resources Institute Finland), Skogforsk (the Forestry Research Institute of Sweden); University of Copenhagen, Norwegian Institute of Bioeconomy Research, Icelandic Forest Research.

Read more: A CAR-website will be set up in 2016. Information will also be available on SNS website:

www.nordicforestresearch.org

This fungus-infected poplar is an example of the needs for pathology and genetics to go hand in hand to meet the future challenges in the forest.

Photo: Mats Hannerz.



CAR-facts

SNS supports Virtual Centres of Advanced Research (CAR). A CAR is a network with a specific scientific subject core. The aim of a CAR is to achieve synergies and avoid duplication, and to use the collective Nordic research and development resources efficiently. CARs are supported with 5-year grants comprising a maximum of 10% of the total CAR budget.

The five CARs for the period 2016–2020 have a total budget of 2,150,000 SEK per year.

Four more CARs

CAR-ES (*Centre of Advanced Research on Environmental Services from Nordic Forest Ecosystems*) continues for a third period. The CAR will analyse the influences on environmental services of different forest management strategies and intensities, land-use changes and changing climatic conditions. Decision tools will be developed for use in forest policy and management.

NOFOBE (*the Nordic forest-based sector in the bioeconomy*) is a new CAR focusing on the need for new forest-based products and services to replace the declining demand for paper and other traditional forest products. The CAR focuses on the solid wood industry, forest-based process industries, and international policy and market developments.

NB-NORD (*Nordic Baltic Network for Operational Research and Development*) continues the work of OSCAR. The CAR identifies six focus areas for the coming period: new and emerging forest products and services; increased value creation through big data; low volume roads; reduced impact from logging; improved silvicultural operations; and organization and methods in contractor forestry.

CARISMA (*Centre of Advanced Research for the innovative use of 3D remote sensing in mapping of forest and landscape attributes based on national forest inventories*) will enhance the current rapid developments in 3D remote sensing taking place in all the Nordic and Baltic countries. Traditional 2D optical remote sensing have been reached the limits of its developmental potential, but 3D techniques has shown to be highly correlated with key forest parameters.

Shortcuts

Europe's forests keep growing

Europe's forest area (excluding Russian federation) is still expanding, and now amounts to 215 million hectare, corresponding to 33% of the land area. Over 150 million hectares are available for wood supply. The total growing stock is 35 billion m³, and the growing stock per hectare has increased from 126 m³ in 1990 to 163 m³ in 2015. The annual sequestration of carbon corresponds to 9% of the total European gas emissions.

Source: State of Europe's Forest 2015

Swede new chairman of CEI-Boi

The European Confederation of woodworking industries (CEI-Bois) represents 184,000 European woodworking industries. In January 2016, a Swede is chairman of the organisation. Anders Ek, president

of SCA Timber Supply, takes over after Marc Michielsen.

Source: www.cei-bois.org



Photo: Per-Anders Sjöquist SCA

Norway's university map redrawn

From 1 January, Norway merges 16 universities and university colleges into five new universities. The merger makes NTNU (Norwegian University of Science and Technology) the largest university in Norway, surpassing University of Oslo. NTNU has its centre in Trondheim.

Source: www.ntnu.edu



Photo: Jenny Svernas-Gillner, SLU

”Put pressure on the researchers to communicate”

– I am sorry to admit that popular communication still has a low status in academics, says Lena Gustafsson. This is sad, since I consider the researcher in applied sciences to be obliged to communicate what they have achieved also outside the universities.

Lena Gustafsson is Professor in conservation biology at the Swedish University of Agricultural Sciences. With almost 40 years of experience both in basic and applied research, she has seen a shift towards more and more emphasis on the internal academic publication.

Research communication is not a one-way information transfer. Lena Gustafsson stresses that a researcher who communicates with public, practitioners and decision makers gets a lot in return.

– With a dual communication we get insights in the target group’s needs and problems. This will give us a basis for identifying relevant research problems, she says.

Lacks metrics

If communication is not rewarding for the academic career, who or what is it to blame?

– Well, I think we all are part of the problem. Researchers, universities and funding agencies count only peer-reviewed articles and scientific impact,

which can be measured. Popular communication lacks metrics today.

But it doesn’t need to stay this way, she says. With most communication being made over the Internet, we have plenty of ways to measure how a result is spread in social media and press. Number of downloads, likes, retweets and media citations are at least possible to measure. The true impact on the society is trickier to catch. But, we have put so much effort into finding metrics for science, then we should put also some work into society impact.

Funding agencies can put more pressure

She believes that the funding agencies could demand more. Currently, there is usually a requirement to add a communication plan in the research application, but after the project, nothing is evaluated.

She gives an example. The project *Smart Hänsyn* (“Smart Tree Retention”) is soon about to report to the funding agency Formas. It has been a 20 million SEK budget project with 5 PhD students. The only demand for popular communication is the 6,000 character summary in the initial application. When the project is finally reported, nothing is required about popular communication.

– I think that the agencies should put more pressure on the researchers

to communicate and also evaluate what has been done. A minimum could be to summarize a scientific paper at least shortly in a national language. With such a summary, it is possible to make the results more spread outside the academic community – to the press and in social media.

A trial run with a project

Going back to *Smart Hänsyn*, Lena Gustafsson and collaborators are now launching a report with scientific findings on effects of tree retention. The report includes summaries of studies on the tree retention practice made in the Nordic and Baltic countries, synthesized into themes with practical advices.

This report will be a trial run of how the information is spread. Each of the chapters is released one by one with press releases and communication on Facebook and Twitter.

– We will try to measure the impact of the releases by looking at downloads, social media flow and press citation. At least, we hope to learn something on how communication can become more efficient, she says.

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Read more: “*Smart Tree Retention*”, *Syntheses of tree retention practices (in Swedish)*

New Secretary General for CEPF



Emma Berglund. Photo: CEPF

–From March 2016, Emma Berglund from Sweden replaces Aljosha Requardt as Secretary General of the Confederation of European Forest Owners (CEPF). CEPF is the umbrella association of 23 national forest owner organisations in 19 European countries, representing 16 million private individuals, families and cooperatives.

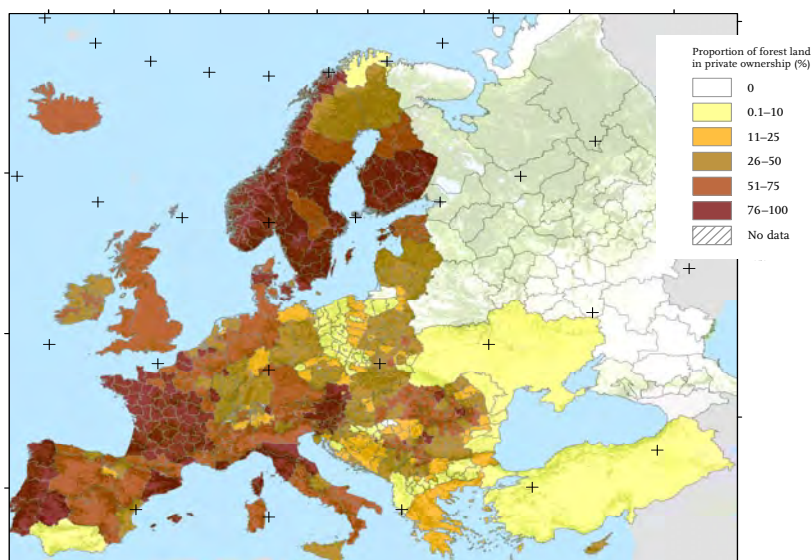
The Secretary General will lead the activities of CEPF from European Forestry House in Brussels, just opposite the EU-parliament.

– It is an honour for me to be given this mission, and I want to build up cooperation in Brussels and around Europe to provide an even stronger voice for family forestry opportunities and challenges, says Emma Berglund in a press release.

Family forestry in Europe

Approximately 60% of the European forest area is privately owned, according to Eurostat. Private owners' share varies largely in Europe, it is low in eastern Europe and high in western, central and northern Europe. A report from UNECE/FAO shows that private properties are mainly small in central, western and eastern Europe, with over 60% of the holdings being less than 1 hectare. The average size of a Swiss private holding is, for example, 1.2 hectares.

EFI (European Forest Institute) has compiled national and international data for 47 countries to produce a map of forest ownership. It clearly shows that private ownership has an important role in the Nordic countries.



Sources: Schmithüsen and Hirsch, 2010. UNECE/FAO. Pulla et al. 2013. EFI. Eurostat pocketbook, 2013. The map can be downloaded from EFI

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More info about SNS:

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