

Faculty of Forest Sciences

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*Vicedean Internationalization
Head of SNS/NKJ Secretariates*

SNS





SNS

A topographic map of the Nordic region, showing contour lines in various colors (white, blue, orange, purple) against a dark background. The map covers Scandinavia and parts of the British Isles and the Baltic region.

Funded in 1972

SNS

Nordic Forest Research

Goal: Promote research
for sustainable forestry

- Create synergy within forest research
- Develop new research areas
- Promote research cooperation
- Promote international contacts
- Communicate results of research
- Advise the Nordic Council of Ministers

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- Denmark
- Finland
- Iceland
- Norway
- Sweden



Chairmanship:
Sweden 2014-2017



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SNS board

- The board has two members from each member country (Denmark, Finland, Iceland, Norway, Sweden).
- It also has one observer from each Åland, Faroe Islands and Greenland.
- Board meeting is held twice a year.
- The secretariat rotates every three years between member countries.

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**Financing:
Nordic Council
of Ministers**

€ 700 000

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CAR

A network with a specified core of scientific subject, in a decentralised manner.

Network

A network is funded for 1 year. Self financing of at least 50% is required.

Project

Based upon a co-ordination of ongoing national research and at least three Nordic countries.

€ 700 000

Evaluation...

...continuously by the Officials Committee for Fishery, Agriculture, Food and Forestry (EK-FJLS) under the Nordic Council of Ministers

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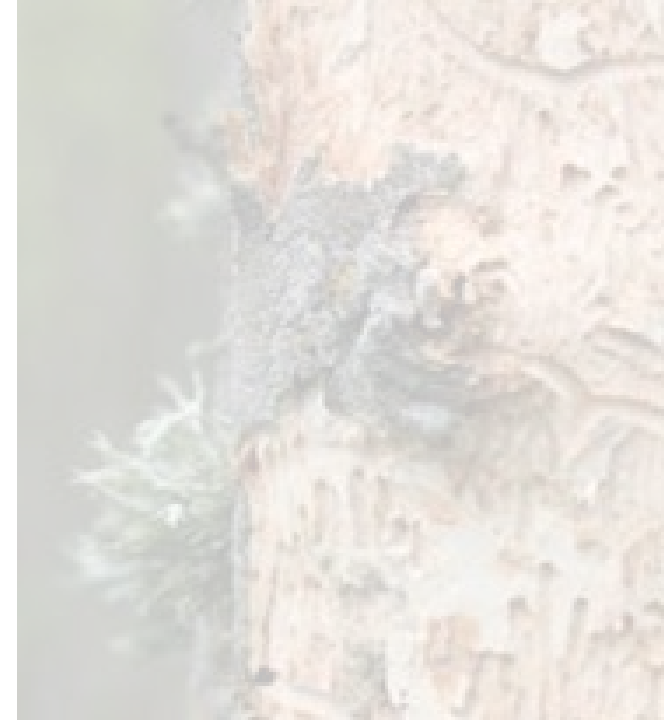
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examples
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Reduce climate change

Research project strives
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New market for wood products

Paper is old – new fields
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Climate change and globalization

New threats to the forests
emerge due to increased
international trade of
plants and plant products,
and the changes in
climate.



Forest Research in the Nordic Countries, trends and future prospects

- **Mega trends**
- **Regional issues/challenges**
- **Research topics**

An aerial photograph of a tropical island with a central lagoon. The island is lush with green vegetation and has several buildings scattered across it. A white circular line highlights the lagoon area. The sky is blue with some white clouds. The overall scene is bright and clear.

The future will look different!

Network of cities

Artificial intelligence (AI)

Robotics

Drones

Additive manufacturing (3D printing)

Wearable devices

Adapted light systems

Blue growth

Green growth



Global trends 2050

- Network of cities - 67% live in cities in 2050
- Growing pressures on ecosystem and landscapes
- Diversifying approaches to governance
- Threatened democratic processes

Economic output will treble between 2010 and 2050

- Growing global population with rapidly **changing consumption patterns** for food, mobility and energy
- Rising levels of education are boosting the **human capital that underpins innovation**

Economic output will treble between 2010 and 2050

- Emerging economies are set to grow much faster than those of the G7
- Emerging economies will be larger than the developed world by 2050
- Demographics, education, capital investment, technological progress is highly affected

Towards a more urban world

- Cities shape the future policy and energy landscape
- Urban growth is driving land-use change in Europe
- Urban green infrastructure is the future



Research trends 2050

- Global shift of research capacity from OECD to **China**.
- Funding of research and development is made through **large companies** rather than through public funds.
- **Emerging research institutions** are being established based on recognizing increasingly complex human-natural interactions.
- New terminology indicates the development of **interdisciplinary research fields**.



Scenarios for Europe

- Small population, ageing economies in Europe are the big losers
- A redefinition of the bases of profit and loss, progress, and value creation might change the table...



Renaissance on the European market

- Europe **can not rely on imports** of raw materials!
- **Weaker partners** for the North without the UK
- Policy development in **EU control** the North
- **North** – investment, income and multiple use
- **South** - biodiversity, carbon sequestration, protection and recreation



Forestry



- **The landscape perspective** accelerate the development of Integrated Food, Fibre, Feed and Energy Systems.
- **Cross-sectoral partnerships** are necessary to meet the demand from the society.
- **System analysis** of the whole value chain will be necessary to develop new systems for natural resource management.
- **Adapted forestry practices** for multiple objectives is the way forward.
- **The potential is huge** for innovation and growth in the sector of biotechnology and bio-based products.



Cross disciplinarity

Challenges

- **Alternative facts**
- **Recruitment issues**
- **Utilization of complete brain capacity**
- **Innovation, jobs, reindustrialization**
- **Flexibility**
- **More money?**
- **Myths...**



"Forests can't be managed sustainably"

Photo: Jonas Rönnerberg



"It is better to leave the trees standing, also for the climate..."

...there is an infinite carbon sequestration potential"



"Only marginal effects on Nordic societies if forests are left growing"

Photo: Jonas Rönnerberg

"Biodiversity is threatened by forestry"

Photo: Jonas Rönnberg

So, if:

- Forests *CAN* be sustainably managed
- Forests *ARE* good for climate
- *MASSIVE* effect on societies
- Biodiversity is *NOT* a problem

WHAT IS THE PROBLEM??



Photo: Jonas Rönnerberg



- *Society - lack of acceptance and understanding*
- *Education - lack of sustainability and students*
- *Communication - lack of skills*



Research topics

- **Biobased economy/circular bioeconomy**
- **Management vs no management**
- **Climate change**
- **Resilience**
- **Internationalization**

A woman with long brown hair, wearing a bright red jacket, blue jeans, and a grey scarf, stands in the center of the frame. She is positioned in front of a massive, towering stack of cut logs. The logs are stacked in neat rows, creating a dense wall of wood. The cut ends of the logs are visible, showing the natural grain and color of the wood. The ground is covered with dry, brown grass and some small plants. The sky is a clear, bright blue. The word "Economy" is written in a bold, black, sans-serif font, centered over a white rectangular background that is placed over the logs.

Economy

Photo: Jonas Rönnerberg

Biobased materials

Xenter
BOTKYRKA



A photograph of a small, clear stream flowing through a dense forest. The water is dark and reflects the surrounding greenery. The banks are covered in moss and various plants. Several trees with moss-covered trunks stand along the stream. A large, fallen log lies across the middle of the stream. The overall scene is peaceful and natural.

Nature experience for better health

Photo: Jonas Rönnberg



Policy research



Invasive species



Forests and water

Photo: Jonas Rönberg

New management methods





Ecosystemservices

Multiple purpose ownership and land-use optimization



Photo: Jonas Rönnberg

Afforestation/restoration



Photo: Jonas Rönnerberg

Way forward

- *Political support/responsibility*
- *Innovation - use the whole society*
- *Reform education*
- *Improved communication skills*

*Forests have potential!
Collaboration is key!*

A scenic landscape featuring a calm lake that perfectly reflects the sky and the surrounding forest. On the left side, a small yellow house with a dark roof is nestled among the trees. The sky is a clear, light blue with a few wispy clouds. The overall atmosphere is peaceful and serene.

Thanks for listening!

Photo: Jonas Rönnerberg