



The Nordic  
Snow Cluster

# The Nordic Snow Cluster



# Agenda

## **The Nordic Snow Cluster**

- What is it?
- How does it look today?
- What are the future plans?






# Peak Innovation/Peak 63

Regional and national innovation environment for sports, outdoor and tourism, with focus on winter.

Situated in Östersund and Åre, Sweden

ERIK MELIN SÖDERSTRÖM



Peak Innovation

- Cover materials
- Measurement techniques
- Production
- Quality
- Snow Management
- Salting
- Storage
- Energy production
- Preparation
- Wind transport and deposition

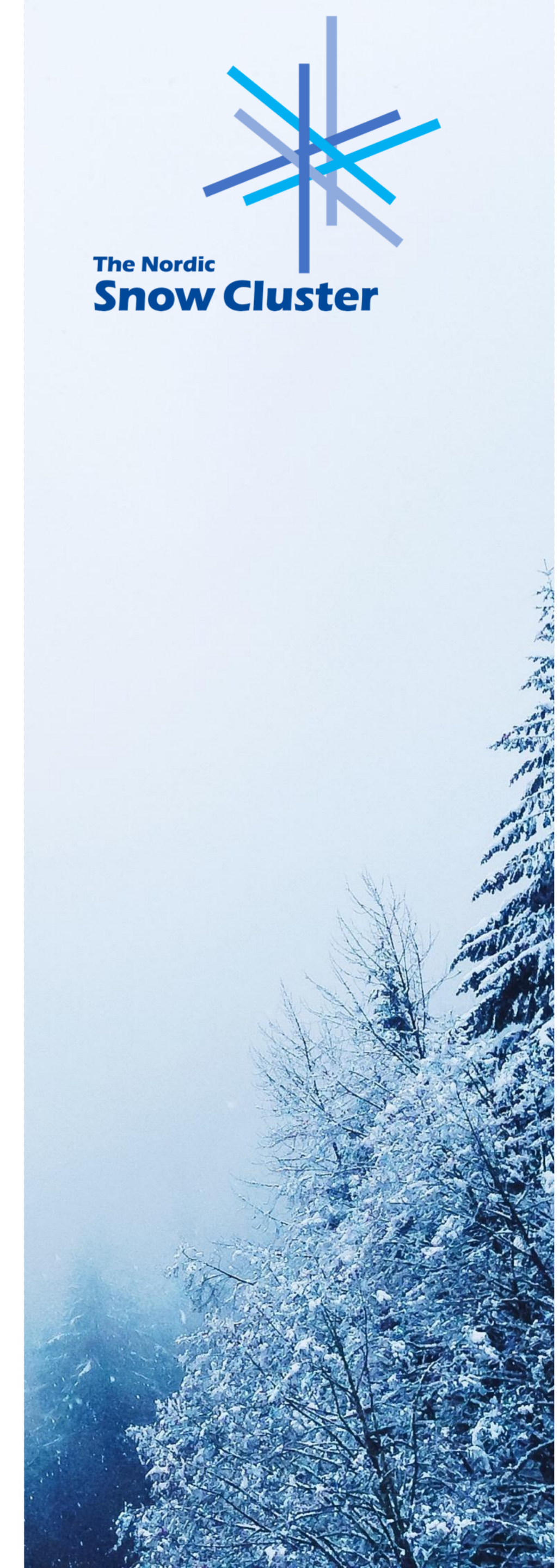
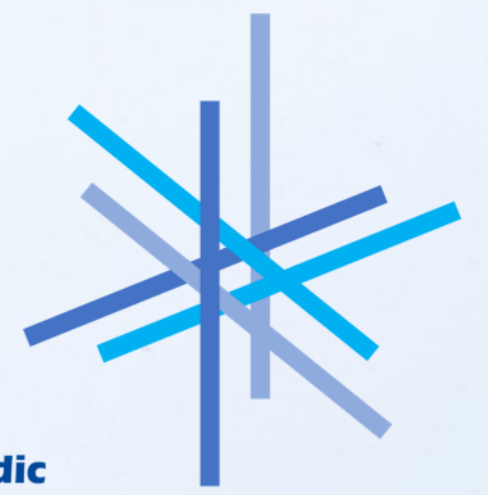
VISIT MEMBER

# The Nordic Snow Cluster

## Background:

- Snow is one thing that defines the Nordic countries and makes us unique.
- Many initiatives and projects around snow in the Nordic region
- Little coordination and collaboration between the Nordic initiatives.
- Funding group:
  - Peak Innovation/Peak 63
  - Luleå University of Technology
  - Mid Sweden University
  - Norwegian University of Science and Technology

The Nordic  
**Snow Cluster**



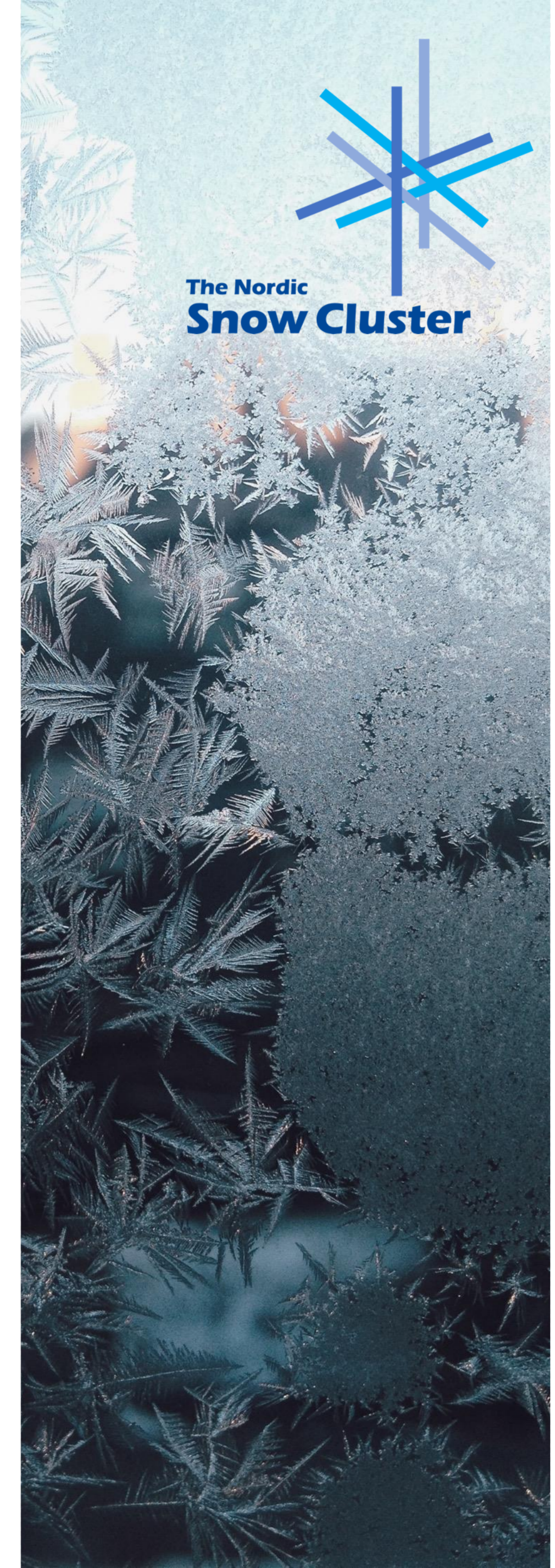
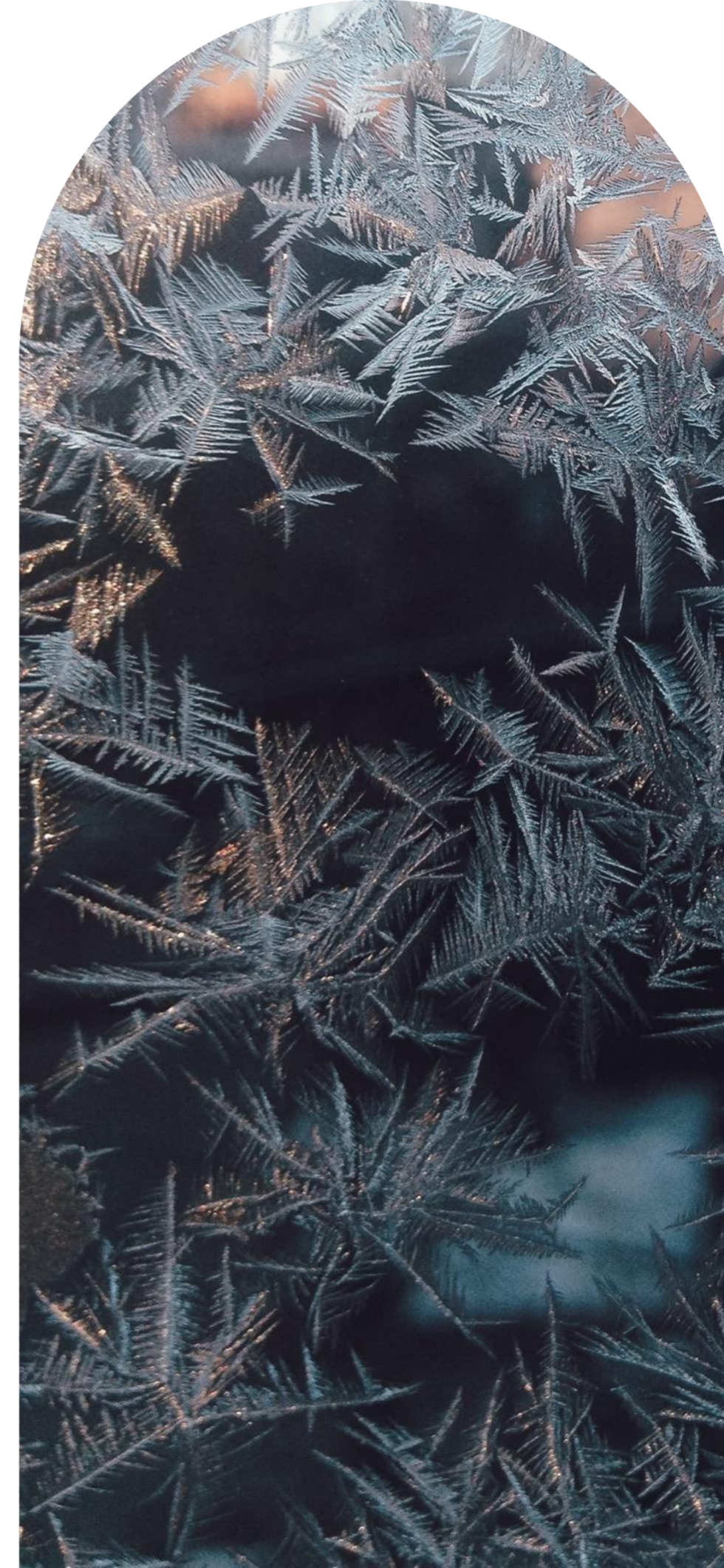
# The Nordic Snow Cluster

## Aim:

- Coordinate efforts around snow research and avoid redundancy
- Increase the speed of knowledge development within the area of snow
- Be better to solve national and international challenges
- Know of, and value add each other's areas of strength
- Get access to infrastructure for snow research that exists within the network
- Commercial actors can easily find the right partner for the challenges they face.
- Create a better awareness of the ongoing projects and the various skills that exist within the network.
- Build consortiums for larger projects (Horizon, EU etc.)

## For whom:

- Any university or research institution with snow and snow related research in the Nordic countries (Sweden, Norway, Finland, Denmark, Greenland and Faeroe Islands)



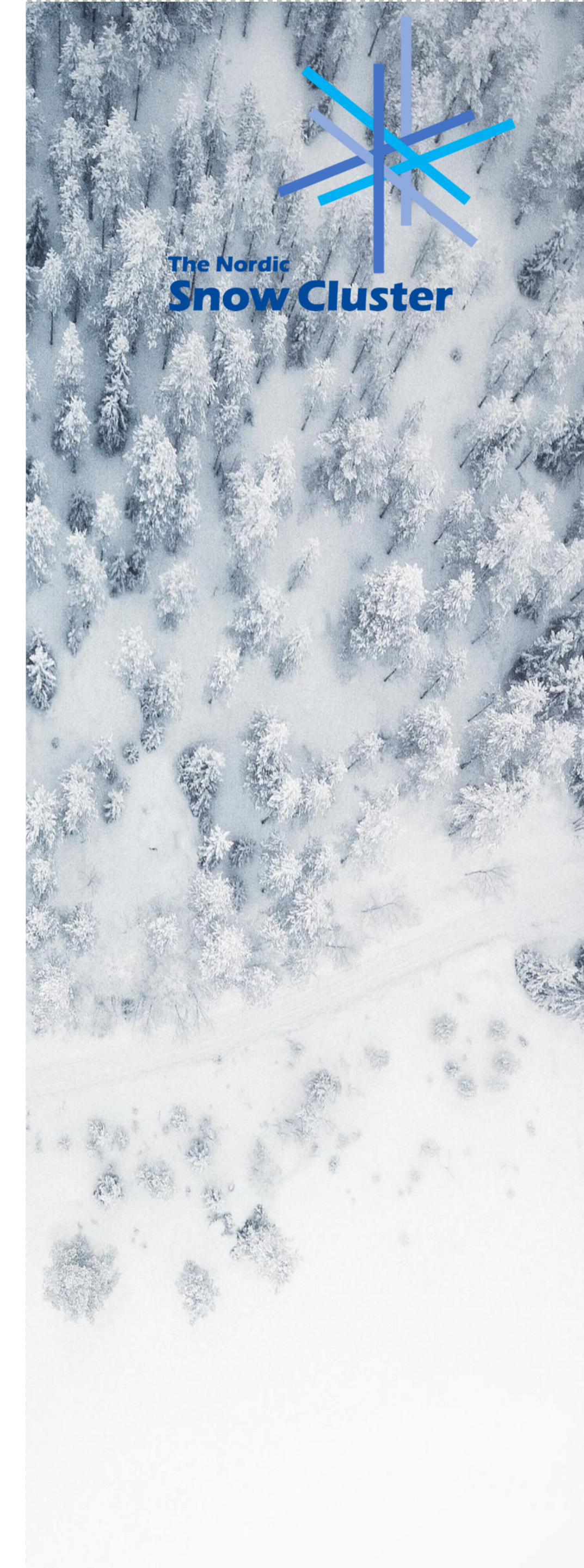
# The Nordic Snow Cluster

## Plan for 2021:

- Build up the cluster
- Build up and get the platform running
- 1 seminars

## Plan for 2022 and beyond:

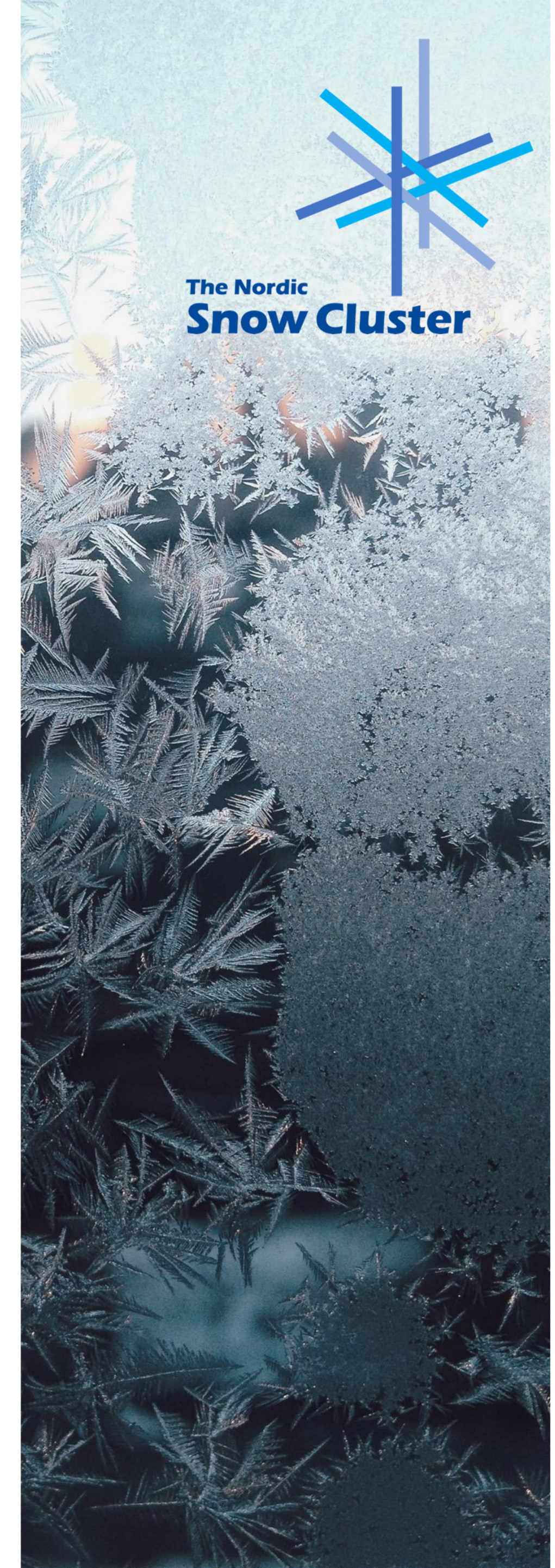
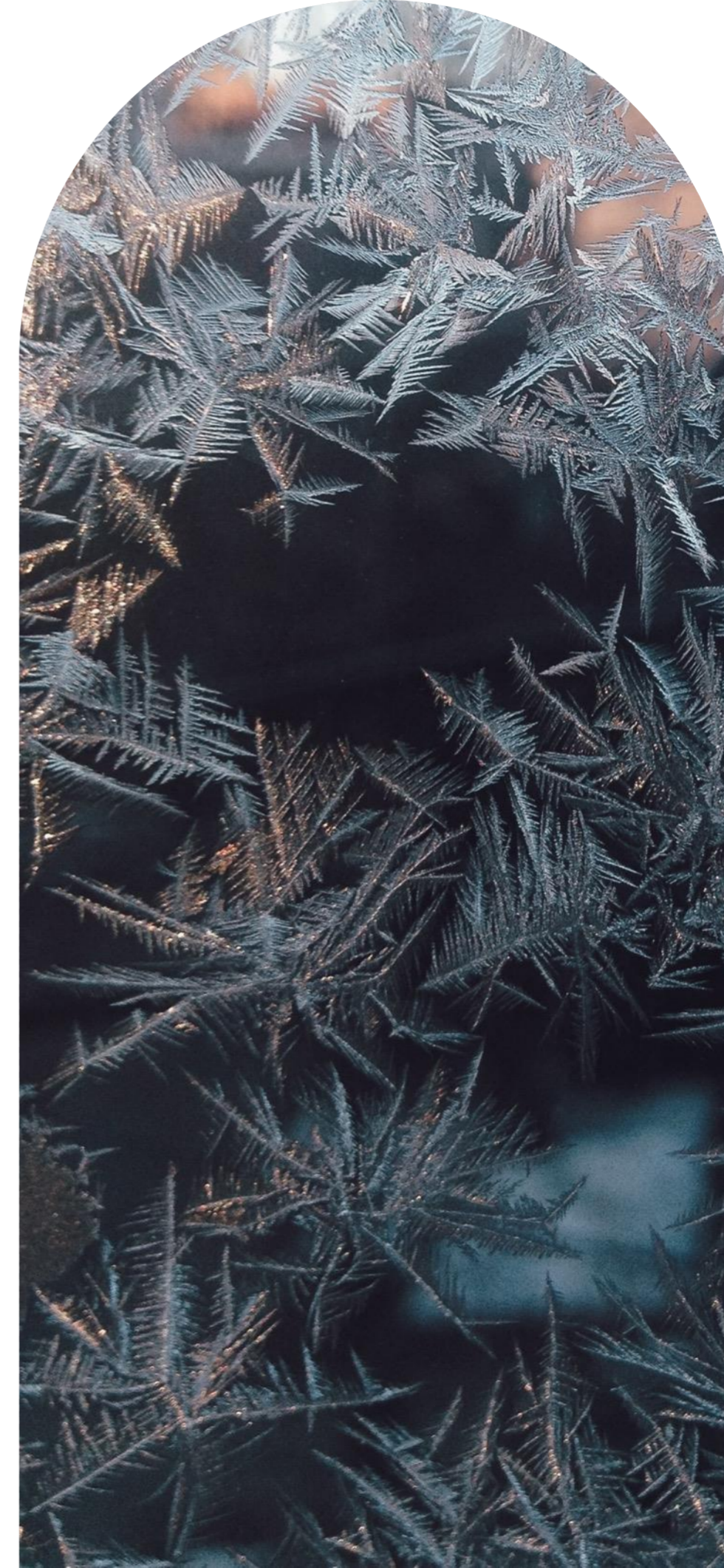
- Continue to improve and manage the cluster
- Manage the platform
- 2 seminars/year
- Add connection to the private and public sector



# The Nordic Snow Cluster

## Member organisations:

- Peak 63 (coordinator)
- Luleå University of Technology
- Mid Sweden University
- Norwegian University of Science and Technology
- University of Oulo
- Lappland University of Applied science
- SINTEF research institute
- Danish university of Technology
- University of Oslo
- Norwegian University of Life Science
- Stockholm University
- University of Tromsö



# The Nordic Snow Cluster



## Members/key persons:

- Erik Melin Söderström, Peak Innovation (coordinator)
- Jan Stala, Peak Innovation (coordinator)
- Johan Casselgren, Luleå University of Technology
- Roland Larsson, Luleå University of Technology
- Agneta Larsson, Luleå University of Technology
- Nina Lintzén, Luleå University of Technology
- Mikael Bäckström Mid Sweden University
- David Samulsson, Mid Sweden University
- Andrey Kptyug, Mid Sweden University
- Benny Thörnberg, Mid Sweden University
- Alex Klein Paste, Norwegian University of Science and Technology
- Sondre Bergtun Auganæs, Norwegian University of Science and Technology
- Rune Strand Ødegård, Norwegian University of Science and Technology
- Oddbjörn Bruland, Norwegian University of Science and Technology
- Audun Formo Buene, Norwegian University of Science and Technology
- Bjørn Aas Norwegian University of Science and Technology
- Bjørn Åge Berntsen, Norwegian University of Science and Technology
- Felix Breitscädel, Norwegian University of Science and Technology/Olympiatoppen
- Thomas Vikhamar Schuler, University of Oslo
- Anssi Mäkynen, University of Oulo
- Pertti Ala-aho, University of Oulo
- Kai Ryyänen, Lapland University of Applied science
- Niko Niemisalo, Lapland University of Applied science
- Ole Marius Moen, SINTEF research institute (Trondheim)
- Ingrid Camilla Clausen, SINTEF research institute (Trondheim)
- Ross Wakelin, SINTEF research institute (Narvik)
- Holger Koss, Danish university of Technology
- Thomas, Ingman-Nielsen, Danish university of Technology
- Jennifer Fiebig, Danish university of Technology
- Thomas Kringlebotn Thiis, Norwegian University of Life Science
- Yngve Birkelund, University of Tromsø

## Some areas of expertise mentioned

- Techniques of snow measurement
- Snow melt and hydropower
- Road friction
- Snow ski friction
- Icing on surfaces
- Icing and wind power
- Snow management, production and snow storage
- Road maintenance in winter
- Permafrost
- Snow wind drifting
- Snow and architecture
- Snow as a construction material
- Snow simulation
- Remote and drone sensing/measurements of snow
- Falling snow
- Snow loads
- Snow and solar power
- Glaciers
- Snowpack



# The platform - snowcluster.org

## LATEST NEWS



### LAUNCHDATE FOR SNOWCLUSTER.ORG

The final launch date is now set to 14th of December. More about the Nordic Snowcluster: There are currently quite a few organisations within Scandinavia that work with research, innovation and development around snow as a resource. We also see...

[READ MORE](#)

## LATEST PROJECTS

### RESEARCH CENTER WINTER OPERATION



Good winter operation of roads is important to get people and goods safely through the winter. Plowing, scattering with sand...

[VISIT PROJECT](#)

### NANO2GLIDE



Skiing is very important for Norway, and Norwegians strongly identify with this sport. We constantly hear top athletes comment on...

[Measurement techniques](#)  
[Quality](#) [Sliding friction](#)  
[Snow Mechanics](#)

[VISIT PROJECT](#)

### SNÖ



Project to increase snow competence in Jämtland Härjedalen Through increased, cooperation, knowledge and testing around snow.

[Cover materials](#)  
[Snow Management](#) [Storage](#)

[VISIT PROJECT](#)

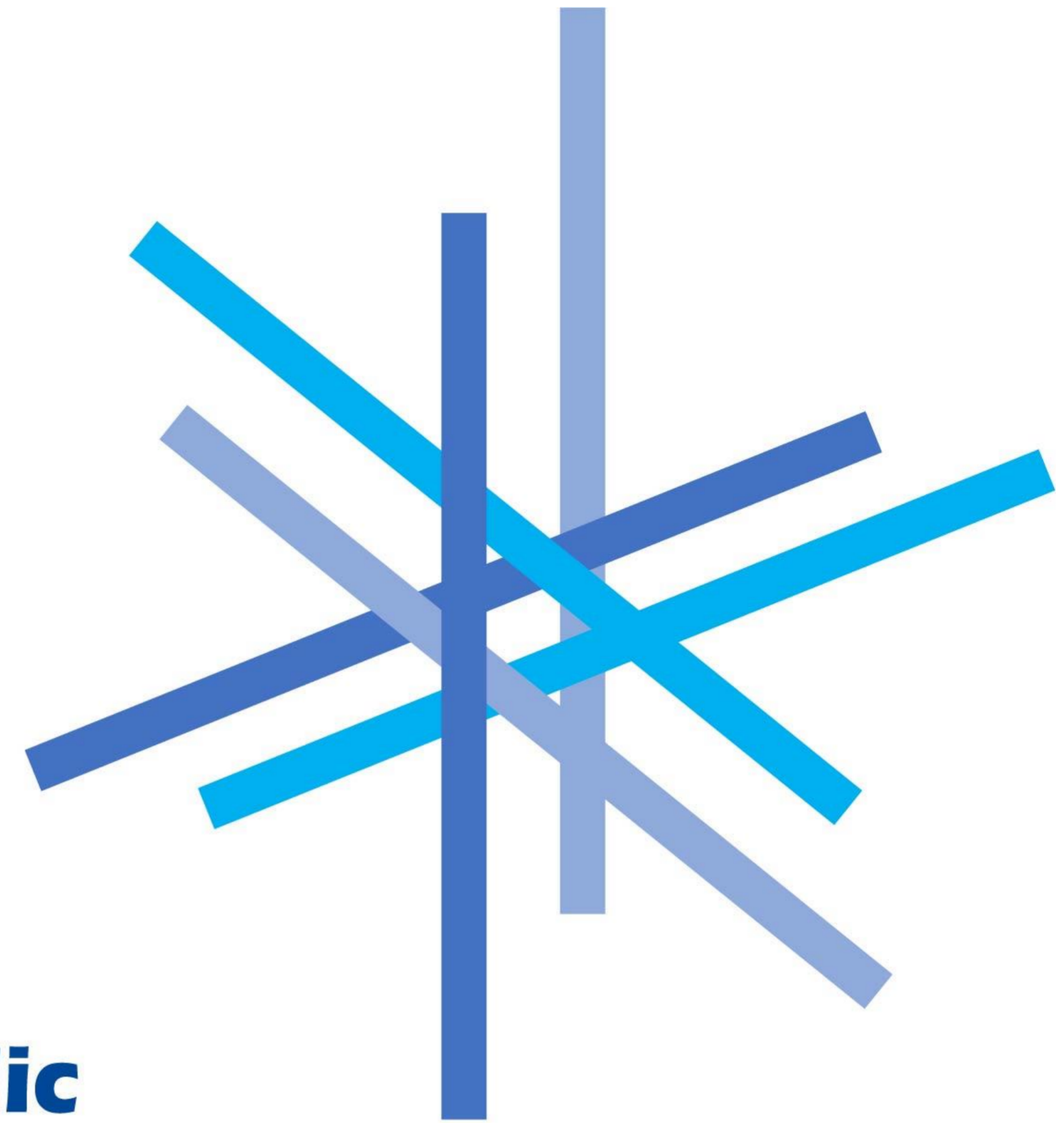
**Thanks!**

**Want to know more please contact me**

Erik Melin Söderström

[erik@peak63.se](mailto:erik@peak63.se)

+46705419719



**The Nordic  
Snow Cluster**

**Peak63<sup>N</sup>**  
OUTDOOR LAB