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### The Nordic Snow Network (NordSnowNet):

### Arctic research and snow data from observations and models

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# http://nordsnownet.fmi.fi/



#### **OUR PROJECT**



## **PROJECT ORGANIZATION**





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### **METADATA**

If you want to add metadata or snow expert information, please, click one of the buttons below and fill-in









# NordSnowNet BASIC INFORMATION

Funding: Nordic Council of Ministers

Project duration: 1.9.2019-1.9.2022

Participant countries: Denmark, Finland, Greenland, Iceland, Norway,

Sweden, (and Estonia)

**Overall goals**: Continue existing and start new collaboration within Nordic countries about snow related research topics. Networking will benefit national activities and also create a new easily accessible platform for international collaboration. Snow information provided by meteorological and hydrological services is distributed and used by stakeholders to a greater extent than today.



## **MILESTONES**

- Information of existing snow-related research and application projects and networks as well as observation and forecast data and resources on snow cover are shared at Nordic level. Web-based framework for open and continuous information exchange is created.
- Exploitation of the snow observational network in terms of
  - 1. snow in-situ observations
  - 2. remote sensing
  - 3. data assimilation



## European Snow Network EuroSnow

- EuroSnow is proposal for European Cooperation in Science and Technology (COST) funding organization call on October 2020
- Aim is to
  - · Strength the established network of snow information providers and users
  - Coordinate the process of the utilization of snow information on European level (from measurement via assimilation into numerical models and user-oriented products)
  - Assisting community sections affected by snow related hazards and extreme events
- EuroSnow will coordinate and support connection of existing projects and ideas for
  - Identifying the needs on different scientific areas and society for assessment of the existing snow observing systems in Europe
  - Improvement of the in-situ data collection and remote sensing observations
  - Harmonization and improvement of snow data management including data and metadata availability, formatting and findability
  - Improvement of methods for hydrological modelling, water management and run-off prediction

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- Exploitation of new data sources and concepts for data assimilation and model validation
- · Identifying impact of snow in extreme events on the community sections
- Field demonstrations, field campaigns, training schools, and workshops will be organized



## **SnowAPP field campaign**

- NordSnowNet field campaign in 2020 in Sodankylä was planned to complete data set of SnowAPP campaign with measurements of spectral reflectance with hand held devices and measurements of spatial variability of snow properties
- Plan changed to support SnowAPP campaign measurements by locals due COVID-19
- Snow pit measurements were made twice per week in March-May, including NIR photos, density, SWE, liquid water content, stratigraphy, grain size and type, specific surface area, impurity, micro-CT sampling, and SnowMicroPen measurements
- Aim of SnowAPP project is to improve modelling of optical and microwave observations







### <u>https://en.ilmatieteenlaitos.fi/iba-</u> project (NordSnowNet collaborator)

#### **IBA-project**



Black carbon in the Arctic and significance compared to dust sources (IBA-FIN-BCDUST)

Funding: Ministry for Foreign Affairs of Finland (MFA of Finland)

Start: 12/2018

End: 12/2020



#### Workshops

#### WS1 ICELAND

In coperation with the IASC workshop on Effects and Extremes of High Latitude Dust (contact: Outi Meinander, FMI)

Time: 13-14 February 2019

Place: Agricultural University of Iceland (AUI), Reykjavik, Iceland

#### More information, including agenda and preliminary book of abstract:

https://icedustblog.wordpress.com/201 and-extremes-of-high-latitude-dust-iasc workshop-in-co-operation-with-theicedust-association-13-14-feb-2019reykjavik-in-iceland/

#### WS2 RUSSIA

In co-operation with the University of Helsinki (contact: Hanna K Lappalainen University of Helsinki)

Time: September-October 2019

Place: Moscow, Russia

WS3 FINLAND

## **NordSnowNet Contact Persons**

#### **STEERING GROUP**

**Denmark:**  Kristian Pagh Nielsen Estonia: •Marko Kaasik **Greenland**: •Kirsty Langley Iceland: •Pavla Dagsson-Waldhauserova Sweden: Patrick Samuelsson Norway: Mariken Homleid **Finland**: •Outi Meinander **Project manager:** •Ali Nadir Arslan





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