

**UARCTIC GENERAL ASSEMBLY** 

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## PROPOSAL FOR A NEW UARCTIC THEMATIC NETWORK ON HIGH LATITUDE DUST



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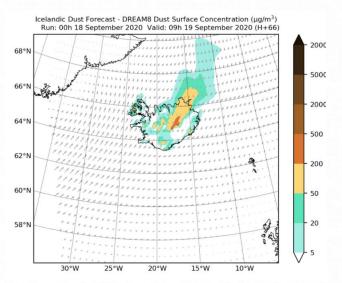
- An international network of researchers, educators and innovators interested in understanding the climate and socio-economic impacts of High Latitude Dust (HLD) in the Arctic
- Established in 2016, currently involves more than 100 scientists from more than
   20 countries
- Hosted as a local dust society since 2014 by the Agricultural University of Iceland, which became a member of UArctic in 2019





## FOCUS OF THE PROPOSED NETWORK

- High Latitude Dust (HLD) is an important <u>air pollutant</u> and <u>climate forcer</u> in fragile Arctic regions
- HLD has impacts on local northern communities (health, transportation, energy production, agriculture etc.)
- HLD TN is to provide the scientific background as well as to raise public awareness related to negative impacts of HLD to northern communities and provide them with tools to monitor dust storms (WMO SDS WAS or UNCCD)

















# OBJECTIVES AND GOALS OF THE PROPOSED NETWORK

■ HLD TN aims at serving as <u>a gateway to expertise on HLD</u> and a platform to facilitate research cooperation through the Arctic research community based on dialog between the Uarctic thematic networks (Disasters and Natural Hazards, Arctic Geology, Permafrost, Arctic Plastic Pollution, Health and Well-being in the Arctic, Arctic Boreal Hub, Herbivory Network, Northern and Arctic Island Studies Research, and Arctic Transport and Logistics)

■ HLD TN encourages the implementation of collaborative research projects, the organization of scientific meetings, the development of joint applications for funding, the training of students, joint field campaigns, citizen science, public engagement, and more





## PARTNER ORGANIZATIONS

The HLD TN leader is Pavla Dagsson-Waldhauserova, Agricultural University of Iceland The HLD TN co-leaders:

- Outi Meinander, Finnish Meteorological Institute, Finland
- Alexander Baklanov, World Meteorological Organization (WMO/UN) and University of Copenhagen, Denmark
- Christian Juncher Jørgensen, Aarhus University, Denmark (research in Greenland)
- Adam Kristensson, Lund Univerity, Sweden
- James King, University of Montreal, Canada
- all members: https://icedustblog.wordpress.com/who-we-are/

#### Icelandic institutions:

Agricultural University of Iceland - Landbúnaðarháskóli Íslands (LBHÍ)

University of Iceland - Háskóli Íslands (HÍ)

Icelandic Meteorological Office – Veðurstofa Íslands (VÍ)

Environment Agency of Iceland - Umhverfisstofnun (UST)

Soil Conservation Service of Iceland - Landgræðsla ríkisins (SCSI)

Vatnaskil

Belgingur

National Power Company of Iceland - Landsvirkjun

Reykjavík University - Háskólinn í Reykjavík (RU)

### Outside Iceland:

#### Austria

Alpen-Adria University Klagenfurt (AAWK)

Universität Wien (UW)

## Belgium

Royal Belgian Institute for Space Aeronomy (RBISA)

Trent University (TU)

University of Montreal (UM)

Université de Sherbrooke, Ouébec (USO)

#### Czech Republic

Institute of Geology of the Czech Academy of Sciences (IGCAS)

Czech University of Life Sciences Prague (CULS)

Masarvk University (MU)

#### Finland

Finnish Meteorological Institute (FMI)

CNRS research scientist at Centre d'Etudes Spatiales de la Biosphère (CESBIO) Institute of Physics Belgrade (IPB)

LPC2E-CNRS/Université d'Orléans (UO)

IMT-Lille-Douai, Lille (IMT)

National Research Institute for Agriculture, Food and Environment (INRAE

Karlsruhe Institute of Technology (KIT)

Technische Universität Darmstadt (TUD)

Freie Universität Berlin (FUB)

RWTH Aachen University (RWTH AU)

Palas GmbH (Palas)

Geographical Institute, Research Centre for Astronomy and Earth Sciences (GI RCAES)

## Ireland

National University of Ireland Galway (NUIG)

University of Perugia (UP)

University of Florence (UF)

#### Japan

University of Tokyo (UT)

#### Norway

Norwegian Institute for Air Research (NILU)

#### Poland

Institute of Geophysics, Polish Academy of Sciences (IGPAS)

Republic Hydrometeorological Service of Serbia (RHSS)

University of Belgrade (UB)

## + new Greenland - ASIAO -**Greenland Survey**



### Spain

Barcelona Supercomputing Center (BSC)

Institute of Environmental Assessment and Water Studies (IDAEA)

University of Barcelona (UBar)

#### Sweden

Lund University (LUND)

#### Switzerland

World Meteorological Organization (WMO)

### **United Kingdom**

Met Office (MO)

Loughborough University (LU)

University of Exeter (UE)

University of Leeds (UL)

University of Birmingham (UBir)

#### USA

University of Miami (UMi)

University of Maryland (UMa)

**NASA** 





# PLANNED ACTIVITIES OF THE PROPOSED NETWORK

- Scientific outputs. Continue in production of joint publications
- Dust forecast development. Development of local dust forecast models to Arctic model
- Meetings. HLD Workshop 2023 meeting in Reykjavík, EAC2023
- Mobility. Opportunities for exchange of students and staff among institutions involved in the network
- Teaching and training. Contribute to specialized courses and develop platforms for sharing educational materials



