GEUS

J.No. GEUS
Ref. LARNI

February 27th 2024

To UArctic's Membership Committee

This letter is to express GEUS' interest and intent to apply for membership in the UArctic network. GEUS is an independent research institution under the Danish Ministry of Energy, Utilities and Climate. GEUS is the leading institute in Denmark which carries Earth Science related research in Greenland, one of the key regions of the Circumpolar North.

GEUS consists of eight scientific departments: (1) the Geological Data Center, (2) Geochemistry, (3) Geophysics and Sedimentary Basins, (4) Mapping and Mineral Resources, (5) Glaciology and Climate, (6) Hydrology, (7) Geo-energy and -storage, and (8) Near Surface Land and Marine Geology.

GEUS has a well-developed infrastructure, including over 10 laboratories, with advanced equipment, to carry out a wide range of analyses related with various aspects of Earth Science. Our researchers conduct geoscientific studies, research, consultancy and geological mapping in Denmark and Greenland, and have a long track record of international cooperation. GEUS is responsible for collecting and managing data collections from Denmark and Greenland, which consist of sediment cores, samples, maps, map services, surveys and background information.

GEUS does not offer university-type courses, but our researchers are actively involved in teaching and supervising activities in Denmark, Greenland, and internationally. We are regularly carrying fieldwork onshore and offshore Greenland and Denmark. By sharing our knowledge, data and infrastructure GEUS provides a unique opportunity for various levels and topics of collaboration within the UArctic network.

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GEUS is a research and advisory institution in the Danish Ministry of Climate, Energy and Utilities

Therefore, I believe that GEUS' expertise in the Arctic research make us a suitable candidate for becoming a member of the UArctic network.

Yours sincerely,

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2024 UARCTIC MEMBERSHIP APPLICANT - PROFILE

Applicant: Geological Survey of Denmark and Greenland (GEUS)

Country: Denmark

Membership Category: Arctic

Membership Type: Other Institution

Profile Description:

The Geological Survey of Denmark and Greenland (GEUS) is an internationally oriented, independent research and advisory institution within the Danish Ministry of Climate, Energy and Utilities. GEUS (danish: Danmarks og Grønlands Geologiske Undersøgelse) in its current form was created on 20th of December 1995 by merging DGU (Danmarks Geologiske Undersøgelse) and GGU (Grønlands Geologiske Undersøgelse). DGU was founded in 1888, while GGU was created in 1946.

GEUS carries out activities to exploit and protect geological resources in Denmark and Greenland. GEUS has more than 40 years of experience with glaciological field work and analysis. We are responsible for the Programme for Monitoring of the Greenland Ice Sheet (PROMICE) and in this connection we operate a network of weather stations on the ice sheet. At GEUS, we map the effects of climate change on the water cycle and the sea level. We also investigate the possibilities for storage of CO_2 in the subsurface. The Paleoclimate Research Group at GEUS has a primary focus on Greenland and Denmark, and the wider Arctic and North Atlantic regions, but is also engaged in projects elsewhere.

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GEUS also undertakes assignments related to energy, minerals, water, climate and the environment on a contractual basis for other public authorities, research agencies, private companies and clients outside Denmark.

Strategic/Thematic Focus Areas:

WATER RESOURCES: We map, monitor and conduct research in groundwater and the water cycle. We prepare reports on pesticides in the groundwater, run the National Water Resources Model and research 3D geological modelling.

ENERGY RESOURCES: We contribute to the investigation and utilization of the subsurface for geothermal energy and for energy and carbon storage. We contribute to marine geophysical planning in energy projects and provide knowledge about the potential for hydropower in Greenland.

DATA: We are the national geological data centre and supply knowledge and data on water, energy resources and climate. We collect data about the geology in Denmark and Greenland to be used in connection with the green transition, resource exploitation, ensuring clean drinking water etc.

MINERAL RESOURCES: Via mapping we create the scientific foundation for the exploration of resources in Denmark and Greenland that may lead to new gravel pits and mines. We work efficiently to ensure the sustainable use of our resources.

NATURE AND CLIMATE: We survey the geological conditions on land, on the coast, and offshore, including the melting of the Greenland Ice Sheet, and we map climate change.