



Forum of Arctic Research Operators

# Greenland Denmark

20 YEARS  
ANNIVERSARY

Celebrating  
20 years of  
FARO 2018

Forum of Arctic  
Research Operators



# Greenland/Faroe Island/Denmark

– *Coordination and Sharing information and resources*

## Danish Forum for Arctic Research (Forum for Arktisk Forskning)

Established in 2013 – currently until 2022

Major institutions involved in Arctic research

Improved coordination and cooperation (science and logistics)

No decision-making power, but recommendations for authorities



# CONCEPTs under development

## Greenland Research Hub



## Greenland Integrated Observing System (GIOS)

A collage of images and maps related to the Greenland Integrated Observing System (GIOS). On the left is a map of Greenland titled "GEM 2017-2021" showing observation stations categorized into High Arctic, Threshold High Arctic/Low Arctic, and Low Arctic. On the right are three photographs: a green building in a snowy landscape, a modern multi-story building, and a large spherical observatory dome being transported on a sled. To the far right is another map of Greenland with numbered circles (2, 4, 5, 6, 11, 16, 17, 18, 19, 21, 28, 61) and green dots indicating specific locations. Below the collage is a "PARTNERS" section with logos for the Ministry of Higher Education and Research, Aarhus University, The Danish Meteorological Institute, GEUS, DTU Technical University of Denmark, University of Copenhagen, and Aalborg University. At the bottom of the collage are five photographs of research ships: a white ship (PS70), a red ship (SARNA), a red ship, a red ship, and a blue and white ship.

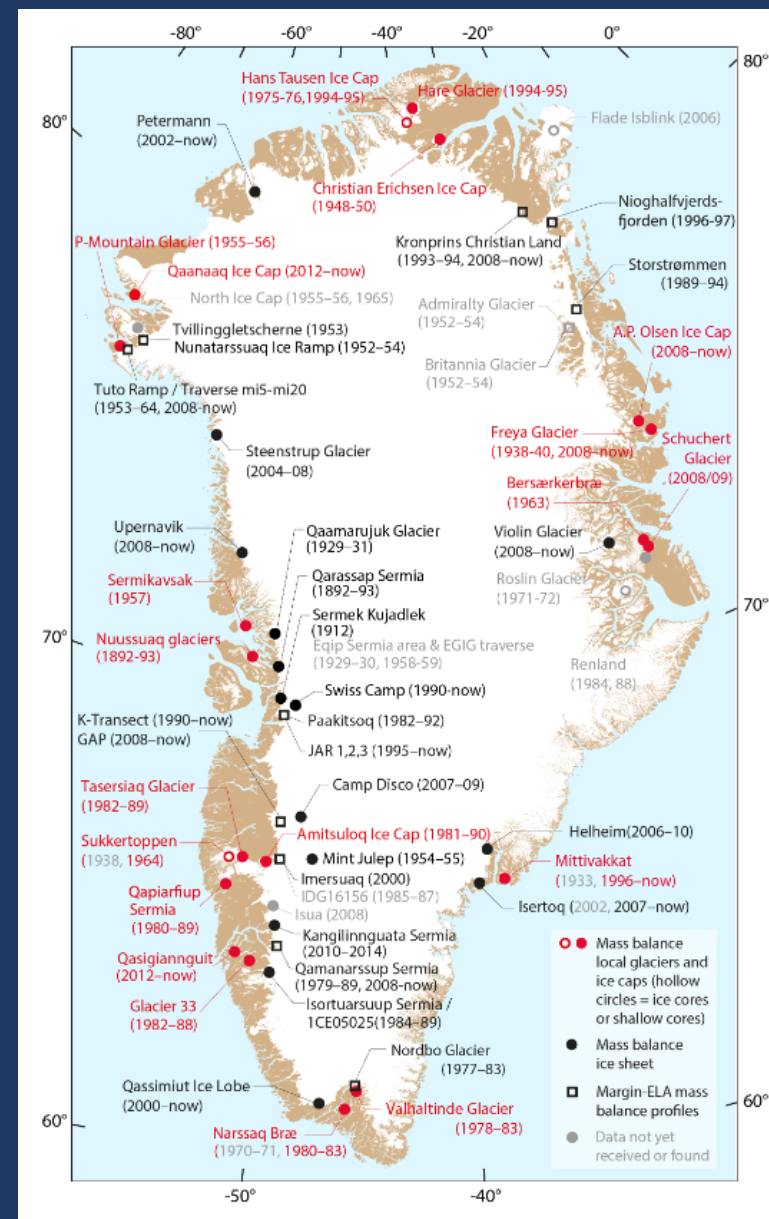
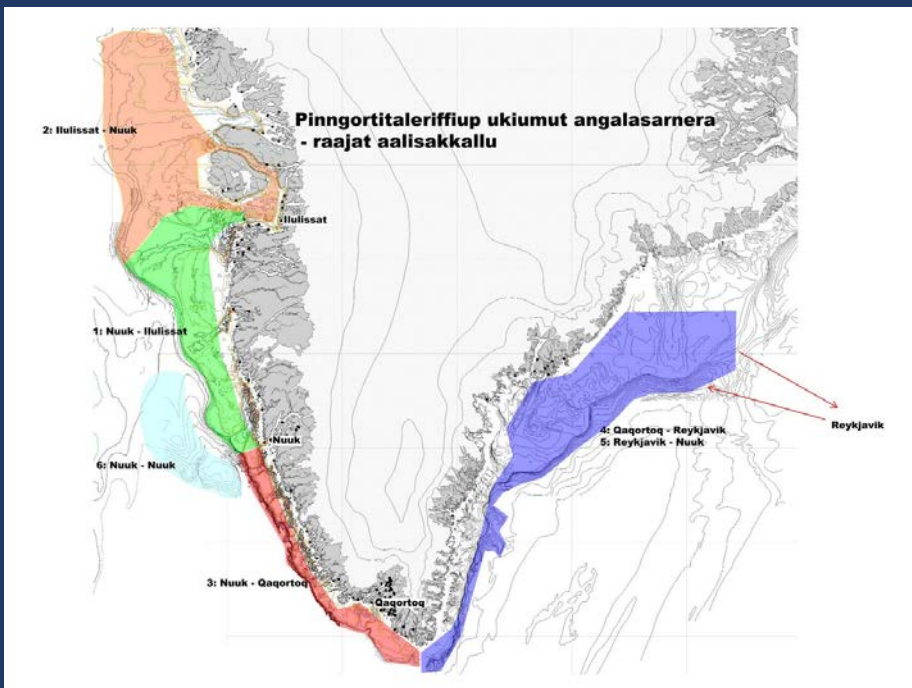
<http://www.isaaffik.org>



Promice – Programme for monitoring of the Greenland Ice Sheet  
 - Mass balance obs and climate

# Existing large scale monitoring efforts

Population monitoring by the Greenland Institute of Natural Resources  
 - Regular fish survey areas as example



# The Greenland Ecosystem Monitoring programme



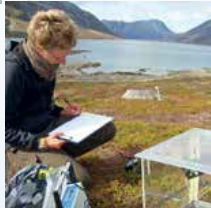
## ClimateBasis Programme

The GEM ClimateBasis Programme studies climate and hydrology providing fundamental background data for the other GEM programmes.



## GeoBasis Programme

The GEM GeoBasis Programme studies abiotic characteristics of the terrestrial environment and their potential feedbacks in a changing climate.



## BioBasis Programme

The GEM BioBasis Programme studies key species and processes across plant and animal populations and their interactions within terrestrial and limnic ecosystems.



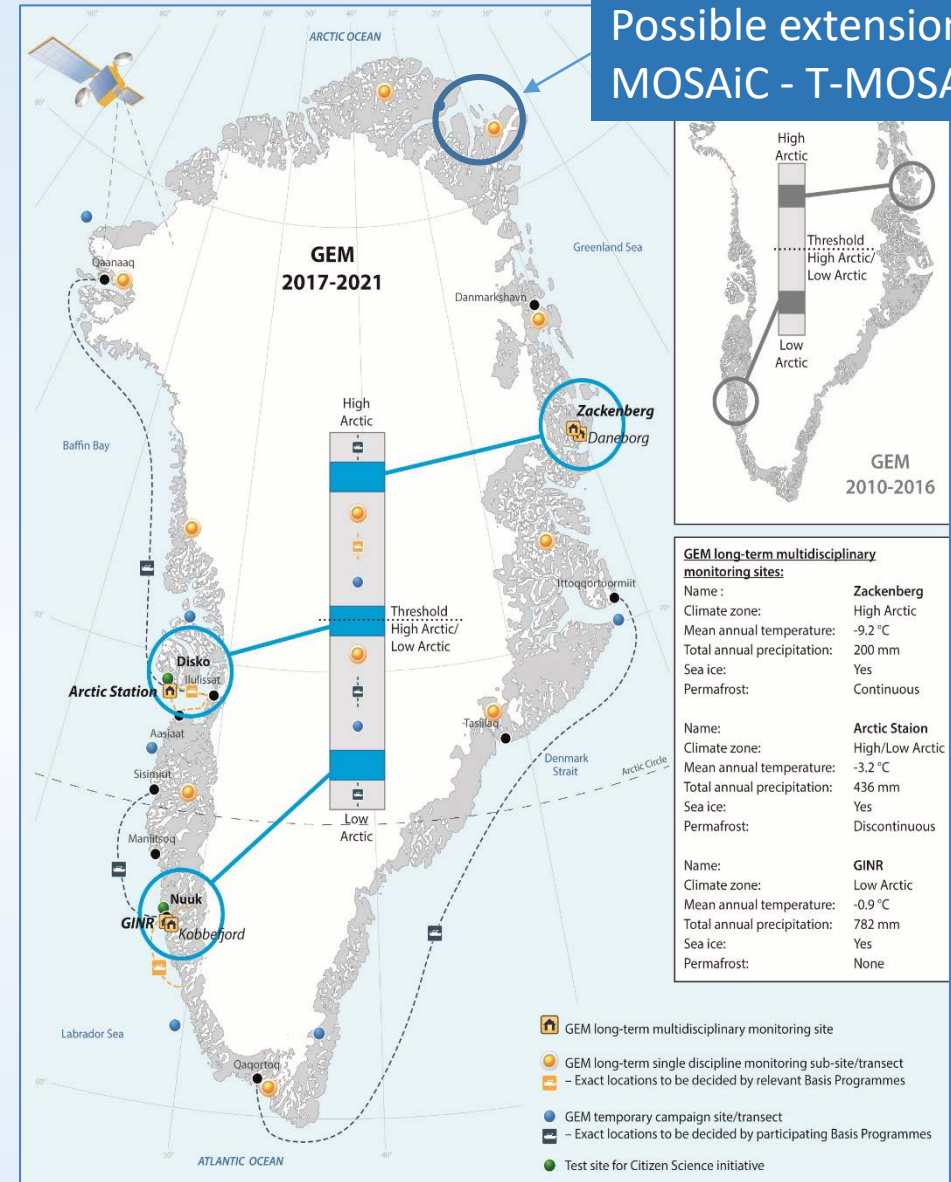
## MarineBasis Programme

The GEM MarineBasis Programme studies key physical, chemical and biological parameters in marine environments.



## GlacioBasis Programme

The GEM GlacioBasis Programme studies ice dynamics, mass balance and surface energy balance in glaciated environments.



All data freely available  
[data.g-e-m.dk](http://data.g-e-m.dk)

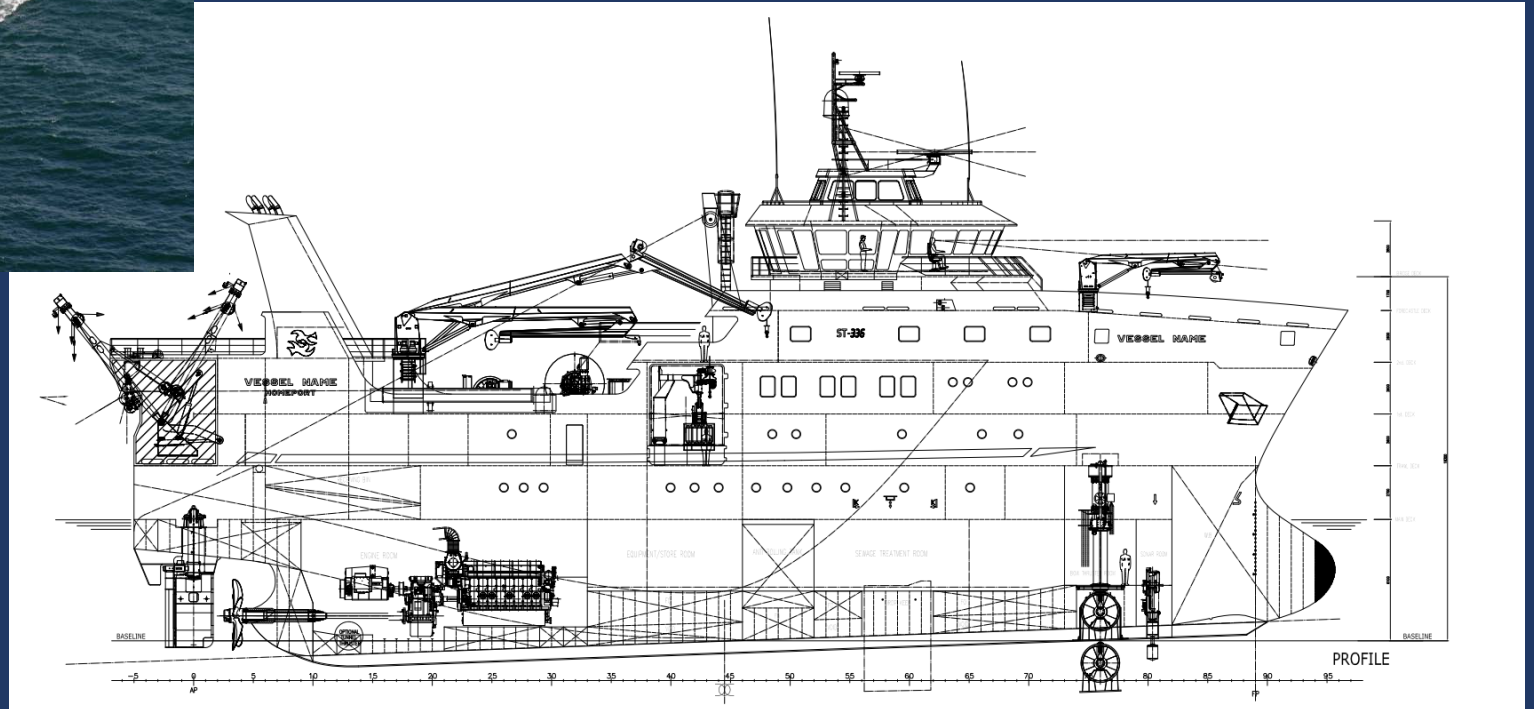


# New Research Vessel - Greenland Institute of Natural Resources



## Main Dimensions (32 Persons + hospital)

Length o.a.	61.00 m
Length between p.p.	52.20 m
Beam	15.00 m
Depth to trawl deck	8.80 m
Depth to 1 <sup>st</sup> deck	11.40 m
Depth to 2 <sup>nd</sup> deck	14.00 m
Frame spacing (main frames)	600 mm





# Station developments

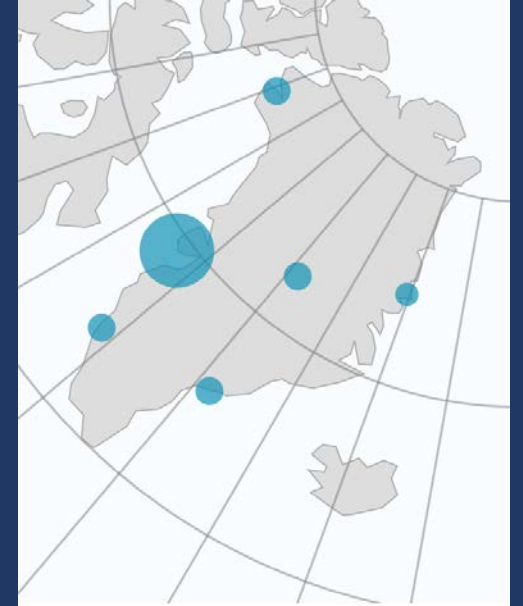
## *Arctic Station*

Arctic Station 1906

**PAST**



**PRESENT**



Arctic Station 2022

**FUTURE – Conceptual drawing**



Arctic Station is a research station situated in Qeqertarsuaq, West Greenland. It was established, as one of the first arctic research stations, in 1906 by the Danish botanist Morten Porsild. Today the station belongs to University of Copenhagen.



## Possible transfer of ownership to and extension of Sermilik Station

University of Copenhagen and University of Graz (Austria) is cooperating on a possible transfer of the ownership to Sermilik Station from University of Copenhagen to University of Graz. University of Graz will then extend and modernise the station with private Austrian funding.

Sermilik Station is situated near Tasiilaq in low arctic Southeast Greenland. Currently, the main focus is on glaciology with time series on local ice cap mass balance dating back to 1985.

Current capacity: 8 PAX

Future capacity: 20 PAX

Currently, also Denmark, Switzerland and USA run research Stations in Greenland to supplement the Greenland owned Zackenberg Research Station, Villum Station and Greenland Institute of Natural Resources.

