



**mareano**  
collecting marine knowledge

# New bathymetric data in the Arctic region

Norwegian Mapping Authority Hydrographic Service (NHS),  
MAREANO-programme and other datasets and programs

**Hanne Hodnesdal and Boele Kuipers (NHS),  
Stockholm 8-10 October 2018**

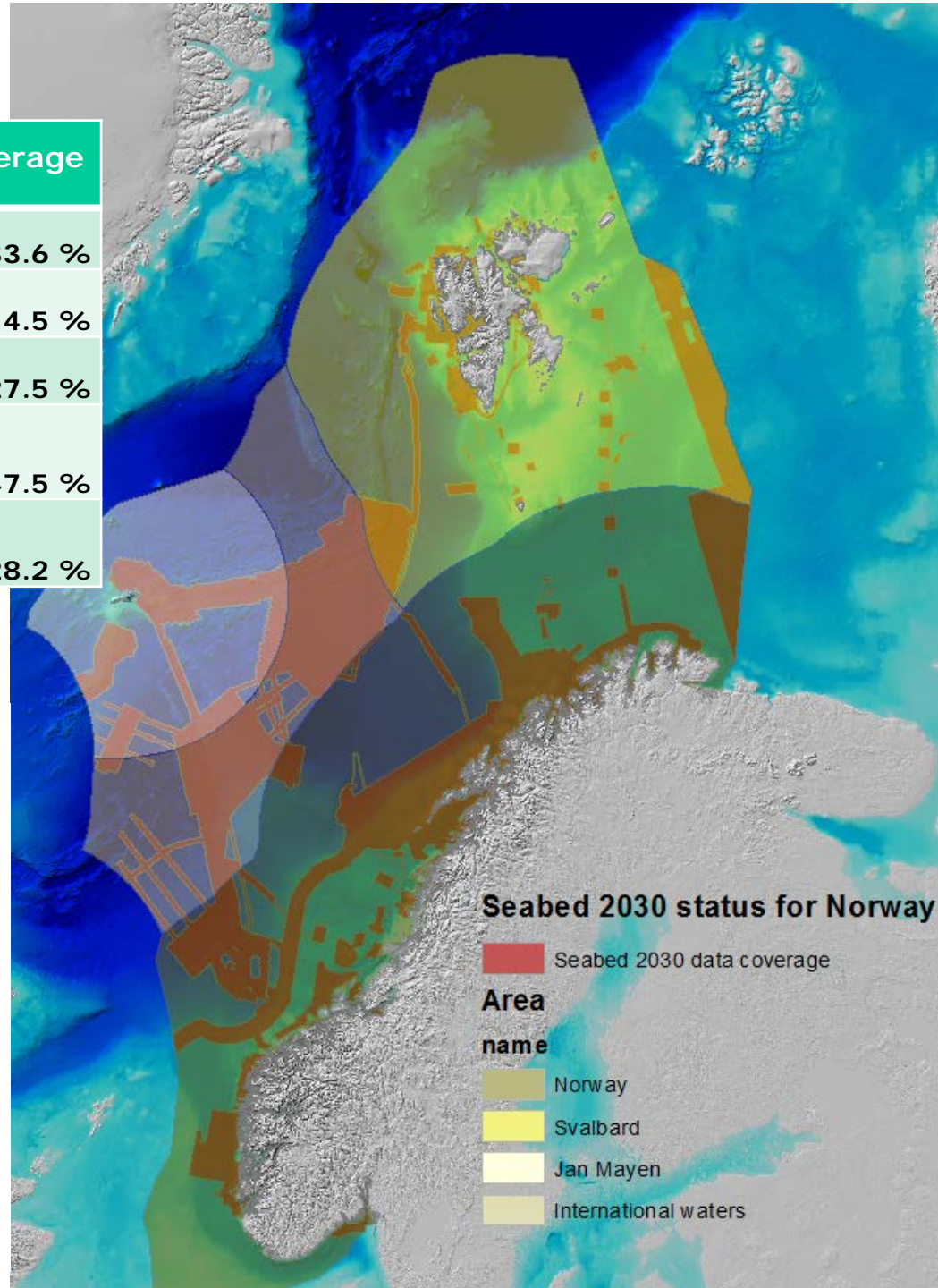


NORWEGIAN MAPPING  
AUTHORITY

# Rough status

Area	Total km <sup>2</sup>	Surveyed km <sup>2</sup>	Coverage %
Norway	935,635	314,185	33.6 %
Svalbard	805,143	117,014	14.5 %
Jan Mayen	296,493	81,404	27.5 %
International waters	319,706	151,709	47.5 %
Total	2,356,977	664,312	28.2 %

- Existing MBES-data are from NHS (incl. MAREANO-programme), the Defence, petroleum, universities and other sources.
- Data missing in the rough status: Datasets from many scientific surveys, some old data that may be acceptable for Seabed 2030, some new datasets

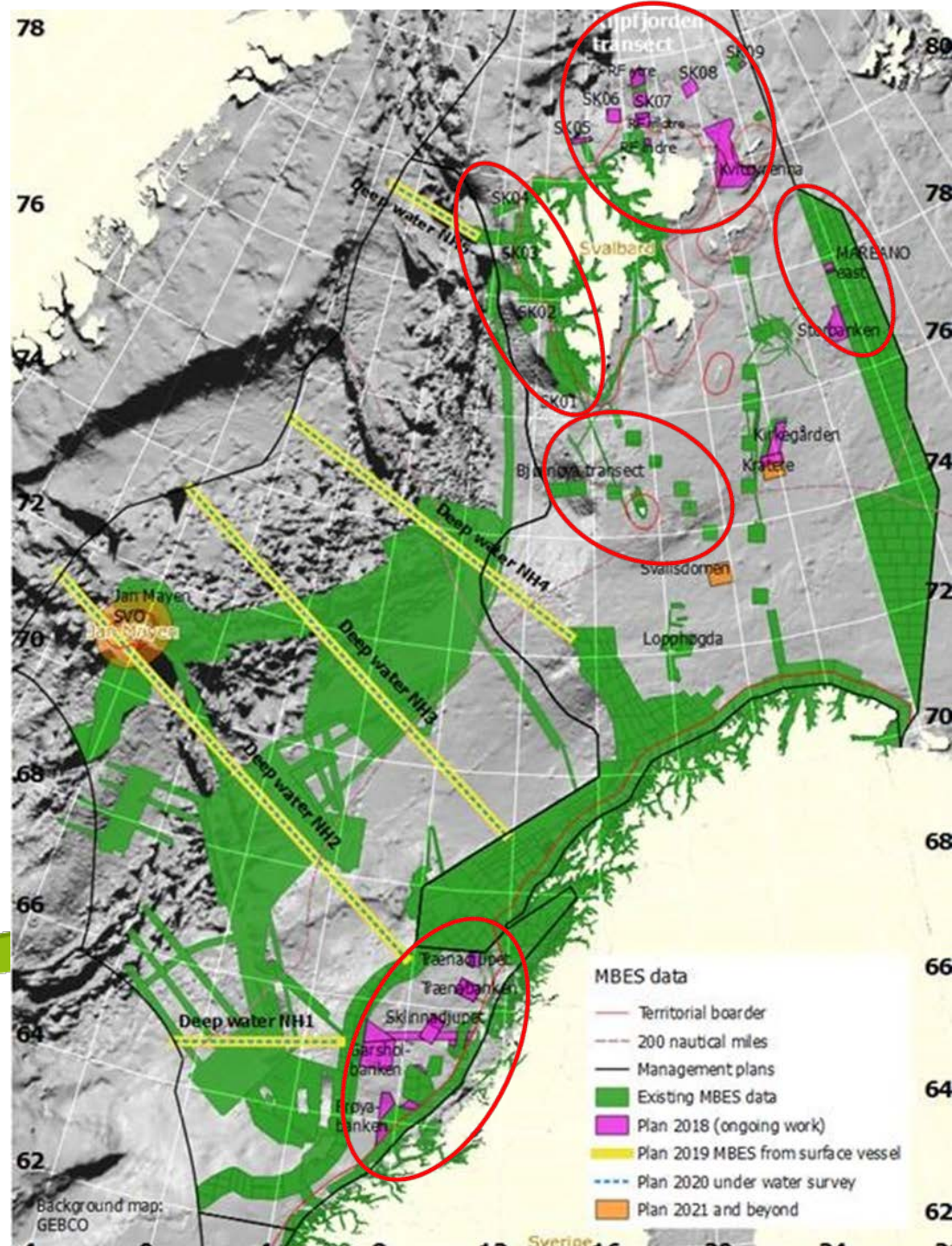




# New bathymetry in the MAREANO seabed mapping programme

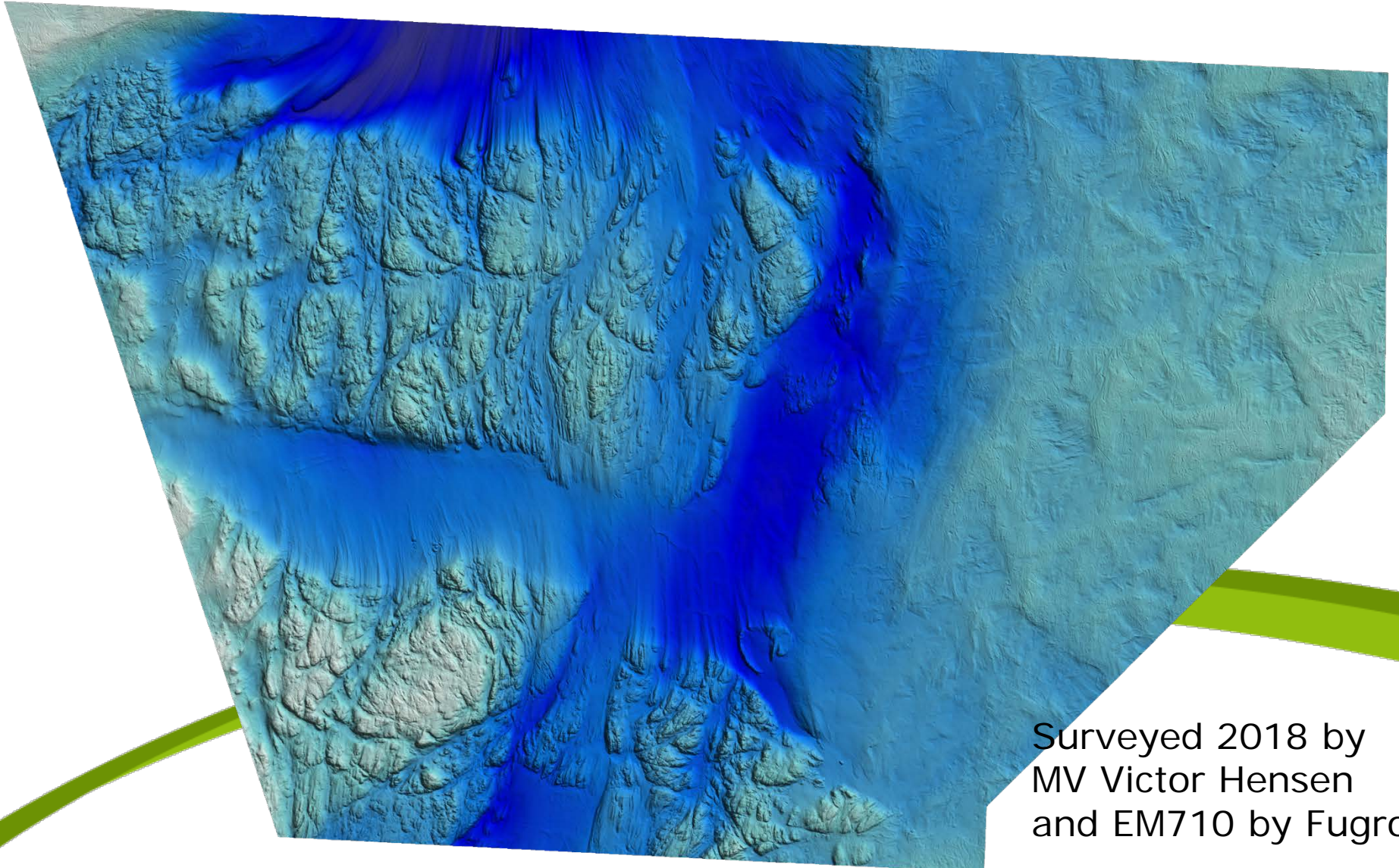
- Areas with new data 2016-2018 marked with red circles
- New in 2018: Survey transit lines outside territorial boarder (crowd sourcing)
- Plans 2019: Deep areas in the Norwegian Sea

NHS (exclusive  
MAREANO) has  
surveyed in coastal  
areas along Norway  
and Svalbard





# New bathymetry from Kvitøya through



Surveyed 2018 by  
MV Victor Hensen  
and EM710 by Fugro

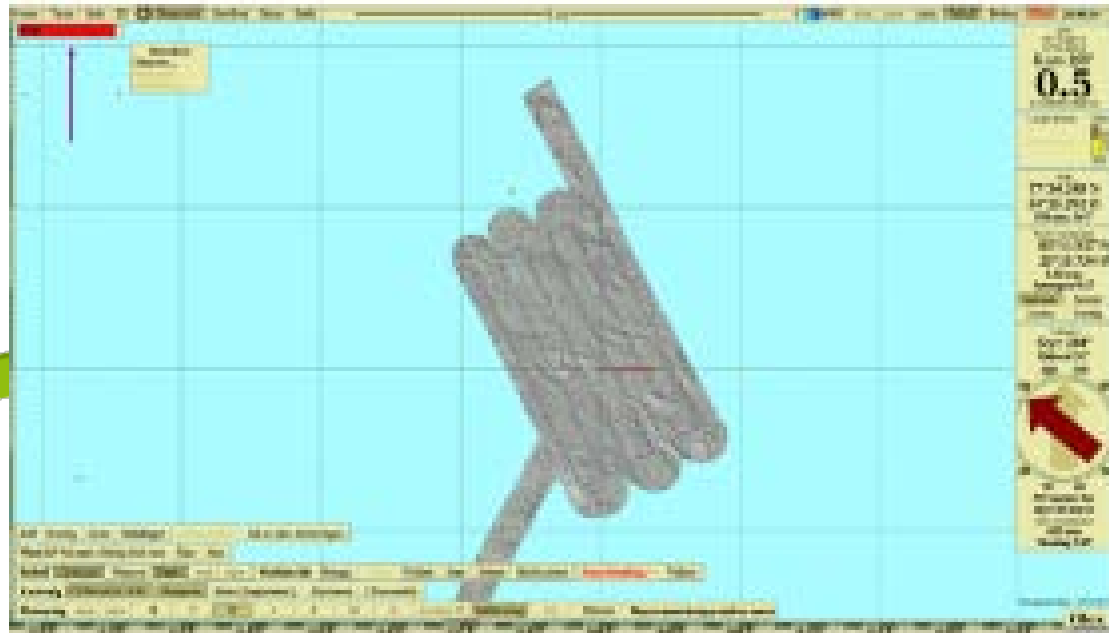
# the Nansen LEGACY



New Norwegian  
scientific program



Figure 2. Survey lines covered during JC1-2. Lines near the Svalbard coast are from earlier mapping

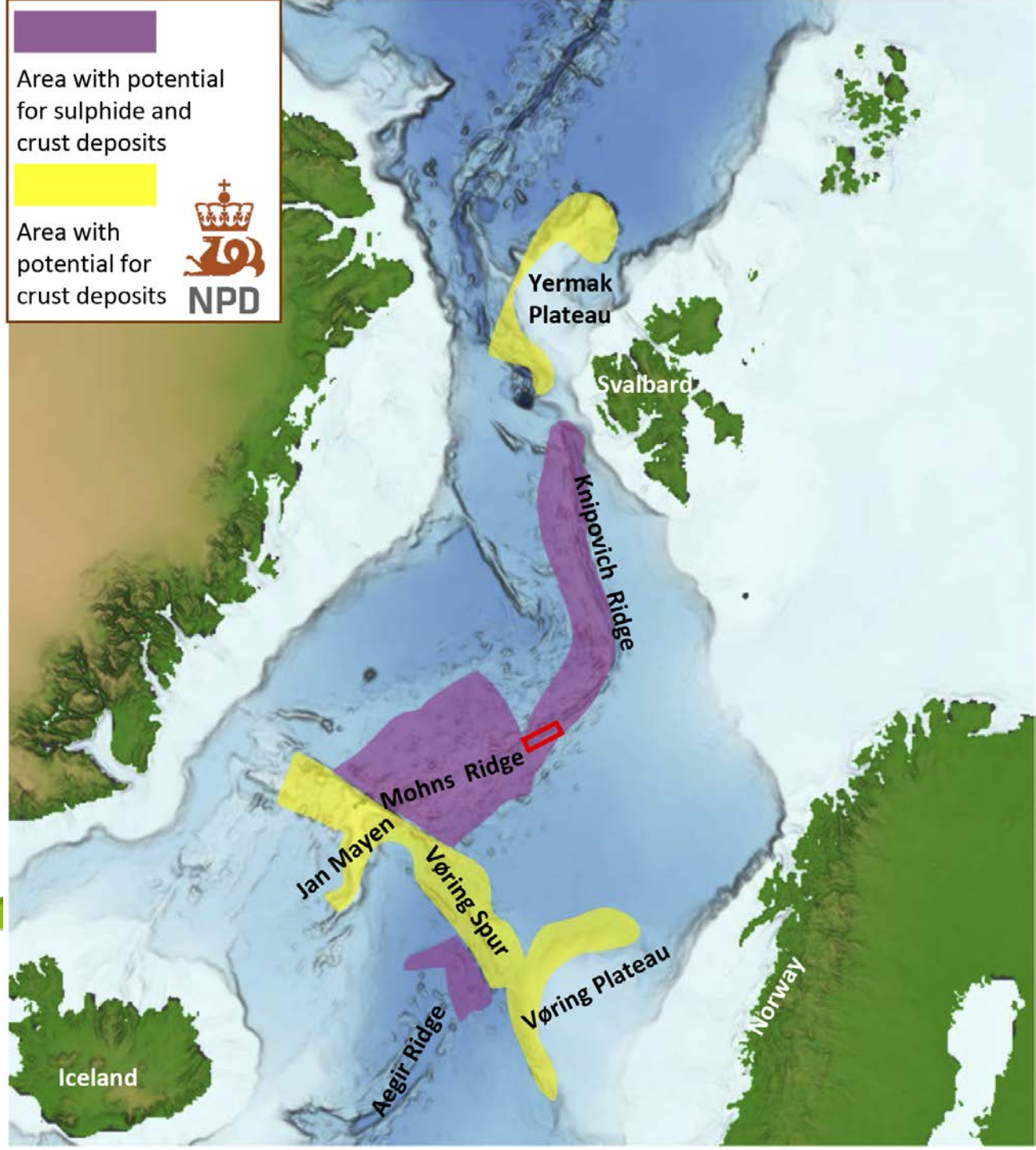




# Norwegian Petroleum Directorate (NPD)

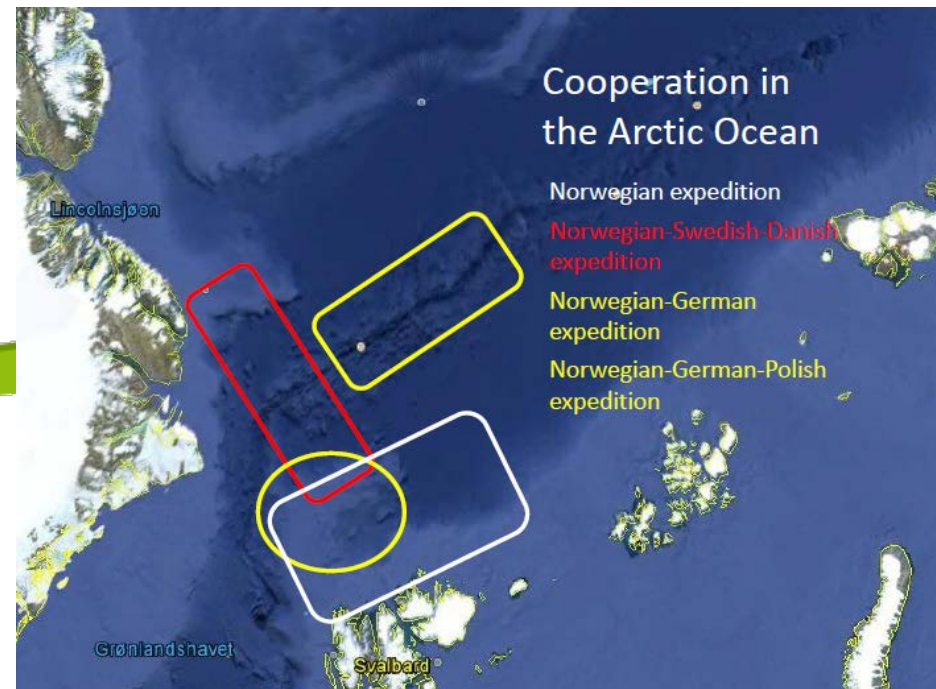
- The NPD has been assigned the task of proving and mapping deep sea minerals mineral deposits on the Norwegian continental shelf.
- During the 2018-expedition, the NPD surveyed an area of 90 km x 35 km centrally located over the spreading ridge, where water depths vary between 1200 and 3500 metres.

<http://www.npd.no/en/news/News/2018/New-deep-sea-mineral-deposits/>



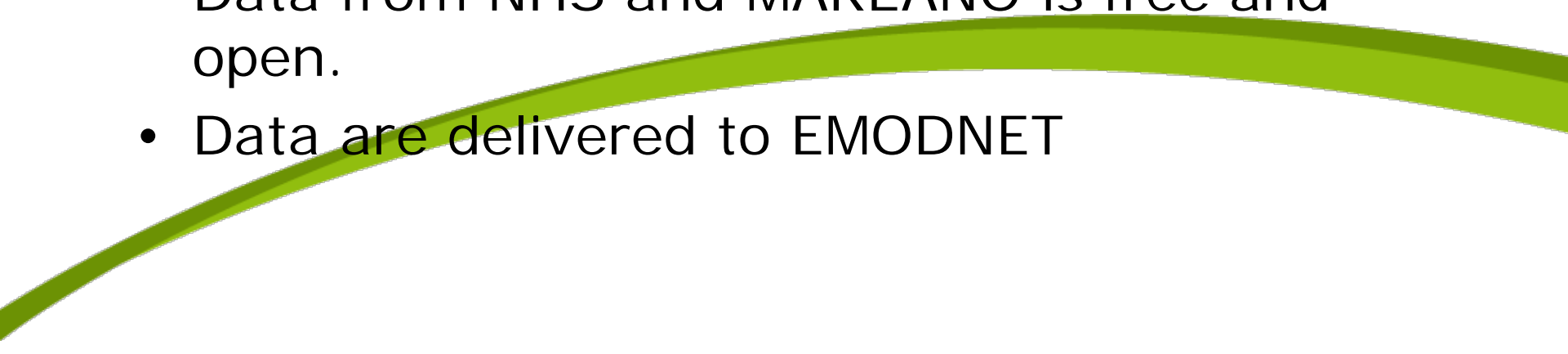
# GoNorth, A new initiative for High Arctic research

- Planning process is ongoing
- Field work may start in 2020
- International cooperation



Ref. Gunnar Sand, SINTEF

# Availability

- Resolution heigher than 50 meter is classified within the territorial boarder.
  - Data from different sources may have som limitation in distribution
  - Not all surveyed data are post processed yet.
  - Data from NHS and MAREANO is free and open.
  - Data are delivered to EMODNET
- 



Detailed bathymetry is classified within the territorial boarder (also for Svalbard?)

**Breisunddjupet**  
**Mørebanken**

**5 m grid**

**50 m grid**

