We have worked with satellite imagery for 20 years..

- Part of the DHI group (1100 employees, +30 offices). Originally a spin-off from University of Copenhagen, founded in year 2000.

- Specialized in EO imagery analysis, often coastal and marine environments. Use machine learning, AI, software development to automate data processing.

- We work within industrial R&D and consultancy in close collaboration with public and private partners and draw upon a diverse international project portfolio.

- Official reseller of satellite imagery and provider of satellite image analysis.

- Leading remote sensing company in Denmark.
DHI GRAS – main Arctic activities

Marine applications

- Submerged Navigational hazards
- Object detection
- Bathymetry of shallow water
- Ice and iceberg mapping
- Sea surface temperature
- Met-ocean modelling and forecasting
- EIA and habitat modelling

Base mapping

- Digital Elevation Models
- Topographic mapping – coastlines, lakes, streams dynamics, vegetation,
- Glaciers, snow cover
- Natural resources (mineral exploration, hydro power)

Data supplier

- Data broker and imagery sourcing advisory service
- Reseller of optical/SAR data from all major satellite image providers
"A major difficulty with the paper charts available for Greenland waters is the incorrect positioning of the coastline in the geographic net in the charts. In general, charts of the northern and eastern Greenland coastlines are misplaced by 0-5,000 meters, and in some areas of the extreme northeast Greenland even more. Charts of the West Greenland coastlines are misplaced by 0-1,000 metres."
NANOK in a nutshell

Jointly with DALO, Joint GeoMETOC Support Center and Naval Warfare Centre, NANOK develops an automation and upscaling feasibility study of navigational hazards:

- Coast lines
- Intertidal zones
- Reefs

Workflows are based on DHI GRAS proprietary bathymetric retrieval model, machine learning and satellite data – all tailored Naval user requirements.

Project co-financed by DALO under their industrial R&D grant, works up until TRL 6 (a bit like the US API - Allied Prototype Initiative)
Nuuk

Example of navigation into uncharted waters
Nuuk – validation of coast line against high resolution data
Aasiaat – example of multi temporal advantages

Multi-temporal approach
- to remove artefacts, tidal zone and tidal range
ADEM – to handle cast shadow effects
Testing your area – welcome aboard

Advantages with NANOK

• Multi temporal approach – possible to capture entire tidal range and remove artefacts

• Independant of calibration data

• Possible to validate agains any point data source (e.g. IceSAT2)

• Cloud based computing – i.e. fast delivery, updating and reiteration (inclution of in-situ data)

• Automated and scalable - pan arctic

• ECPINS integration – no additional screens to look at while navigating
Reach out to get your early bird offering allowing you to test the navigational derisking of your area

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