



Kartverket

National report Norway

ARHC11

9 + 10 November 2021, Virtual



Marine Base Maps for the Coastal Zone, Norway

No: Marine grunnkart i kystsonen

- The *Marine Base Maps for the Coastal Zone, Norway* project was officially announced October 2019.
- 3 years duration as a pilot project, focusing on three locations along the coast.
- .. then hopefully established as a program in 2023.
- The Norwegian Hydrographic Service (NHS) leads the pilot.
- Partners:
 - Geological Survey of Norway (NGU)
 - Institute of Marine Research (HI)

<https://www.kartverket.no/en/Prosjekter/marine-grunnkart-i-kystsonen/>



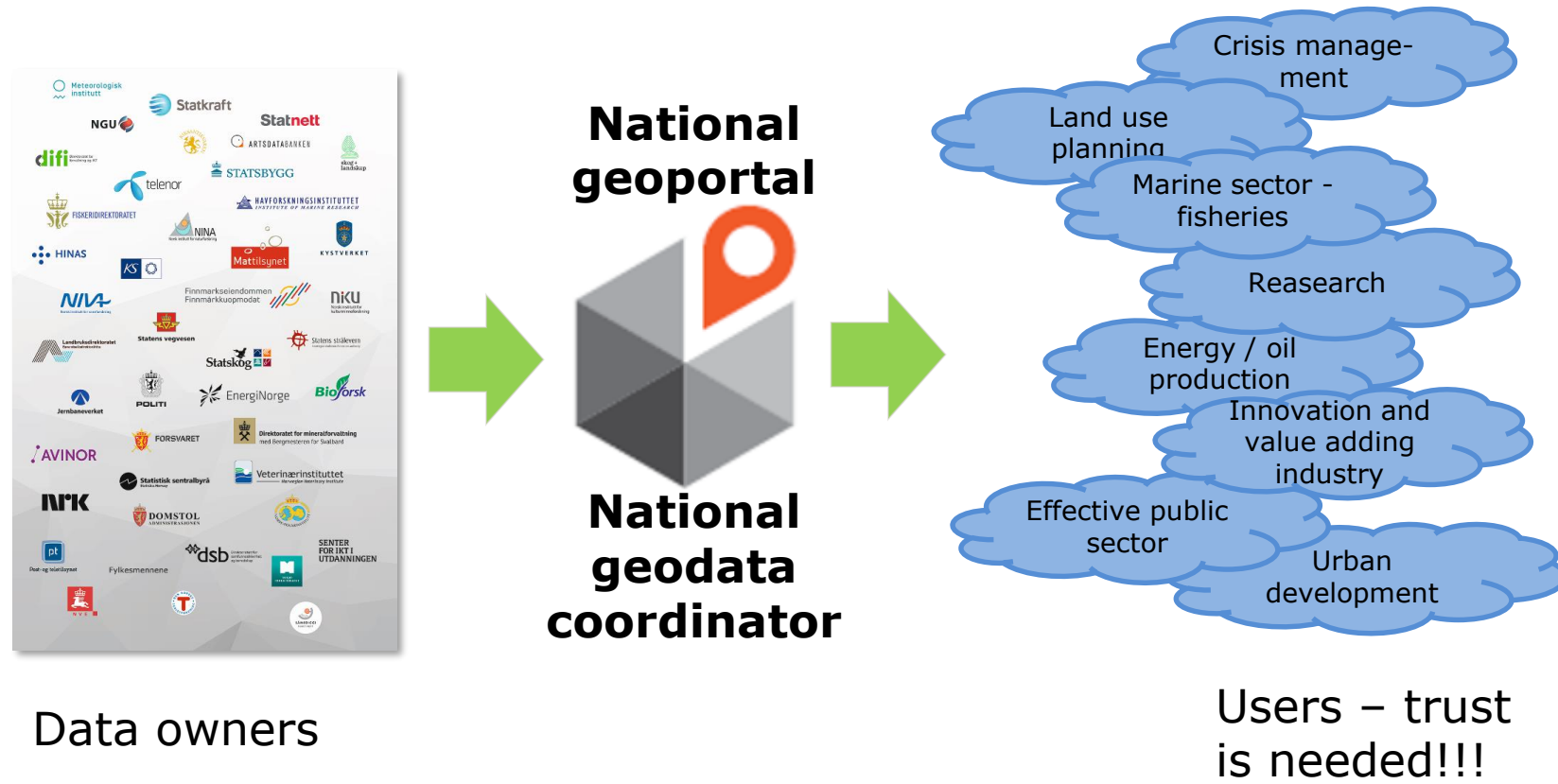
National Geodata coordinator

- Geodata act
- Geodata strategy
- Digital agenda
- Key to digitisation and value adding in public and private sector



Authoritative

Unless we provide stable, trustworthy data for free with easy access; users, public or private, will not use the NSDI products. As a result their investments may fail.

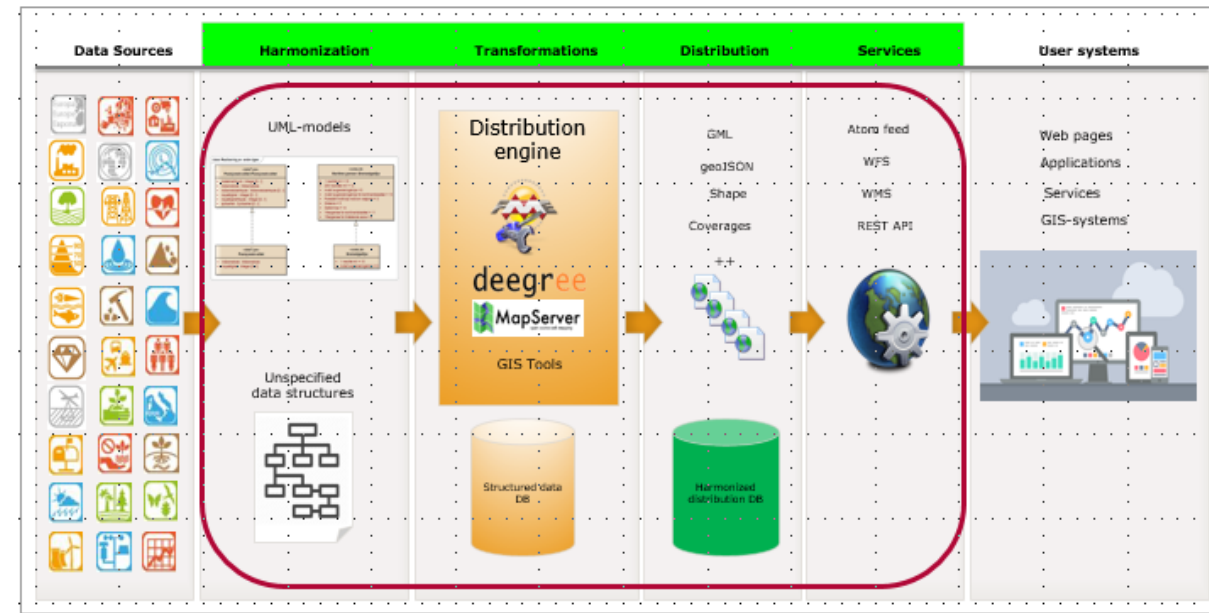


Marine base maps

The data foundation

Key elements:

- Thematic datasets provided by the corresponding sectoral authority (data owners)
- Data available through standardized geospatial services by the individual data owner. (Mainly OGCs WMS, WMS-T, and WFS at the moment).
- Datasets and services documented by the data owner through metadata registrations in the national SDI (official announcement / productification of a dataset / service)
- Terminology and cartography harmonized and adjusted to the user needs

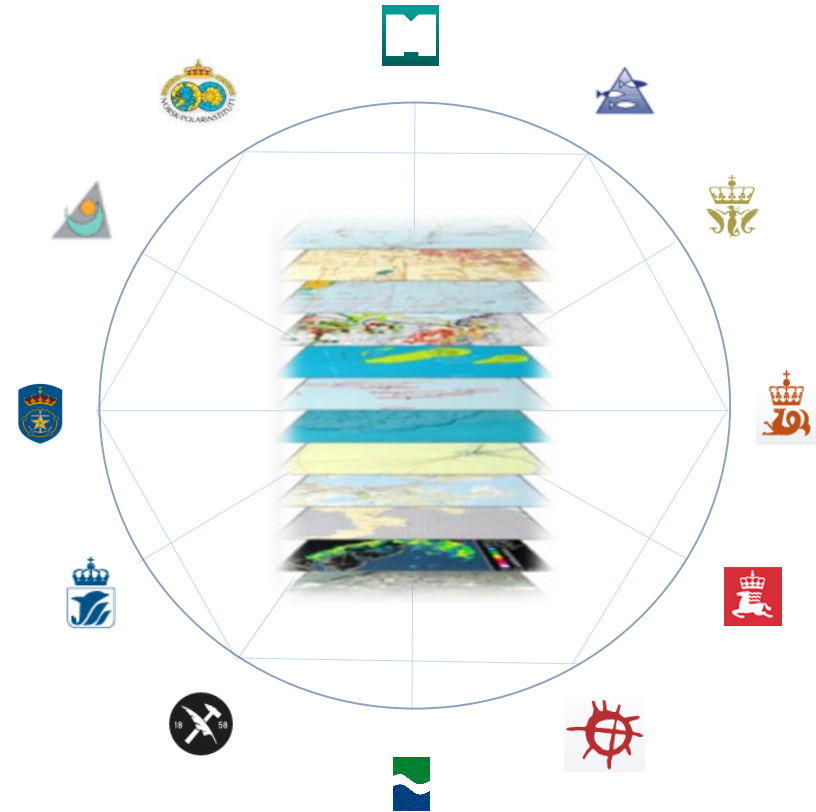


Marine base maps

Support the marine spatial planning process in Norway with authoritative data

Main stakeholders

- Norwegian Environment Agency
- Norwegian Mapping Authority
- BarentsWatch
- Directorate of Fisheries
- Institute of Marine Research
- Norwegian Coastal Administration
- Norwegian Maritime Authority
- Norwegian Petroleum Directorate
- Petroleum Safety Authority
- Norwegian Radiation Protection Authority
- National Institute of Nutrition and Seafood Research
- Norwegian Polar Institute
- Norwegian Mapping Authority



FAIR principles

Mareano Status Register

The register provides an overview of data collected through the projects; Mareano and "Marine base map". The overview shows the status of various datasets' fulfillment of the FAIR principles as well as other requirements from the national geographical infrastructure

Updated: 23/06/2021

Dataset

Reports

Showing 1 - 50 of 54 hits

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Save As:

CSV



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Title	Owner	F	A	I	R	i	l	i	SOSI	GML	Geo	Geo	RSS	i		
Akkumulasjonsrater for organisk karbon i havbunnsedimenter i Nordsjøen og Skagerrak	Geological Survey of Norway	😊	😞	😞	😊	😊	😞	😊	😊	⬜	⬜	😊	😞	😞	😞	⬜
Artsmangfold – Svampobservasjoner per video-transekt	Institute of Marine Research	😊	😊	😊	😊	😊	😞	😞	😊	😊	😊	😞	😊	😞	😊	⬜
Artsmangfold – Videoobservasjoner	Institute of Marine Research	😊	😊	😊	😊	😊	😞	😞	😊	😊	😞	😊	😊	😊	😊	⬜



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Standardization and digitalization of Port data



Photo: Port of Kristiansand



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Norwegian Mapping Authority

Port Data 2020

Project goal for Havnedata 2020:
Make it easy to share and update port data through common national infrastructure for spatial information.



Kartverket • Geodataarbeid • Havnedata

Havnedata

Infrastruktur og standard for havnedata er utviklet. Et nytt system muliggjør forvaltning og ajourføring av havnedata direkte fra de enkelte havnene etter samme prinsipp som øvrige basis kartdata (FKB).

Artikler og video



Sikre og effektive havner

– Det er utvilsomt god samfunnsnytte i å bygge infrastruktur for havnedata, sier kartverkssjef Johnny Welle. Prosjektet som har jobbet med digitalisering av havner er fullført og sjøsatt – og infrastruktur og standard for havnedata er nå på plass.



Digitaliserer havnene

Gjennom offentlig-privat samarbeid og med ny teknologi samles detaljerte data om bunnforhold og anlegg i en rekke havner.



Tema havner på Sjøkartkonferansen 2020

Arbeid og tiltak for å standardisere og fremskaffe bedre data som skal bidra til å skape sikrere og mer effektive havner ble presentert på Sjøkartkonferansen 2020. Se foredragene fra konferansen i opptak.

Data på Geonorge

Havnedata WMS

Registreringsinstruks for havnedata

Datamodell for havnedata

Havnesymboler

Nyttig

Sentral felles kartdatabase

Standardisering

Nasjonal geodatastrategi

KONTAKT

Kontaktpersoner i Kartverket

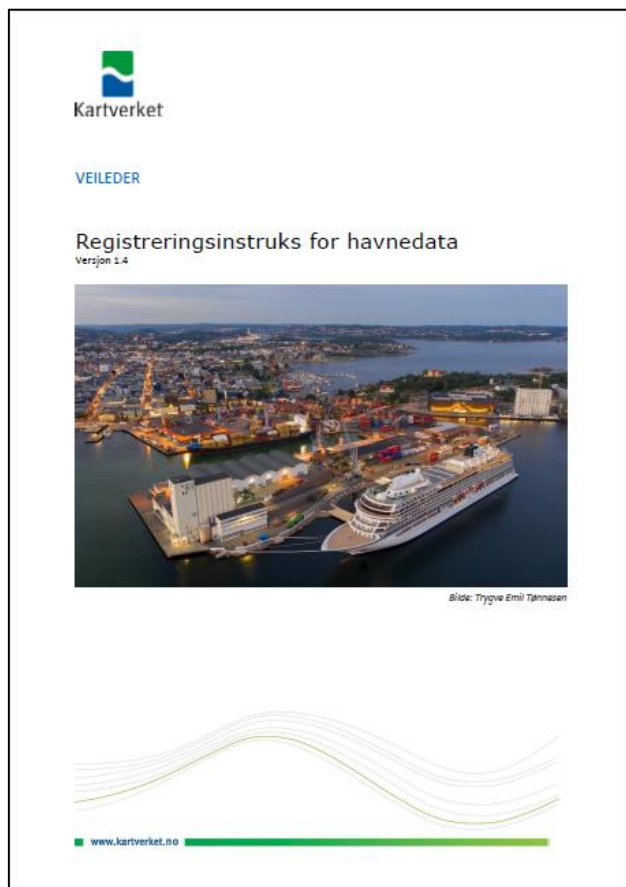
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Laserskanning av Oslo havn





Guidance document

Practical guide that ensures quality and uniform registration.

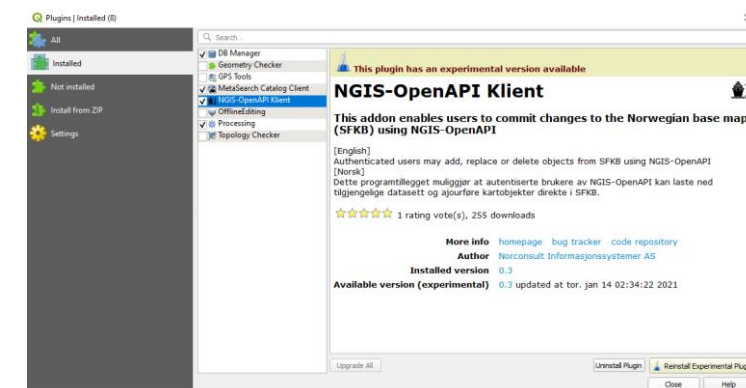


Mapping

Digitization in 17 ports
Bathymetry in 10 ports



Standardized drawing rules
WMS-services



Database management
Common database for Port data, with access via Plugin i QGIS/NGIS Open API



Norwegian Mapping Authority

Port Data 2021

A continuation from «Port data 2020»

Project goal:

Make it easy to share and update port data through a common national infrastructure.

Joint project with:



Coastal
Administration



Maritime
Authority

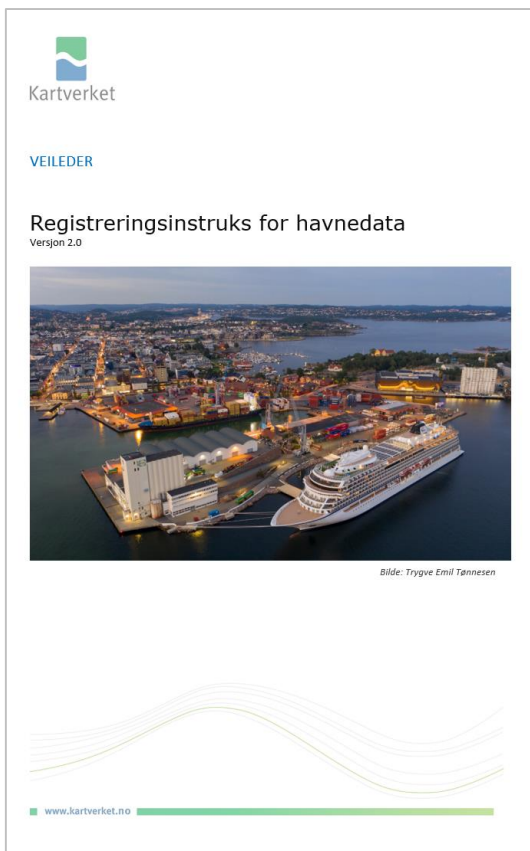


Environment
Agency



Mapping
Authority

Port Data version 2.0



- Port data version 2.0 was published 15.oct -21:
 - Updated version of the Port Data standard
 - Updated Guidance document
 - UML-model available in norwegian and english
- Next version (3.0):
- Summer 2022
- Product specification and guidance document (no/en)
- Approved as official product specification

Latest project : «Norwegian digital port infrastructure»

- Financial support from the Norwegian Coastal Administration
- Budget 32 million NOK
- Ends in december 2022
- Port of Oslo is project owner
- Norwegian Mapping Authority is project leader
- 9 major Norwegian ports



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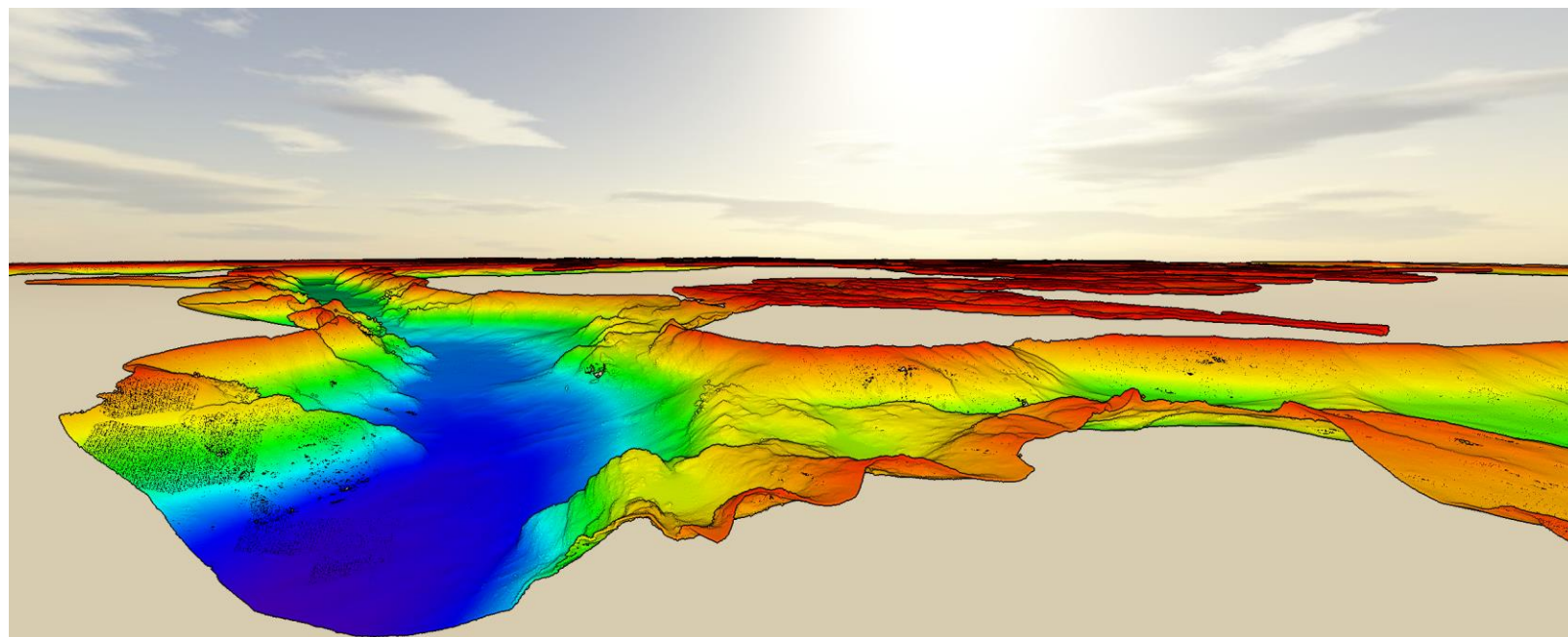


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NAUTILUS

for Reception, Management and Dissemination of Hydrographic Data



Nautilus

shall ensure a reception, management and dissemination of high-resolution depth data and other hydrographic data to all users:

- Will ensure **access to high quality source data** that will generate value and improve decision making in Norwegian waters (sea, coastal and port areas)
- Strengthen **public private cooperation**
- The Norwegian Mapping Authority, as a charting authority, will meet required **international standards**, and will meet expected quality and product diversity
- Enable and improve **use of authoritative data**, obtained from the national geodata infrastructure (Geonorge.no), for a more efficient production
- **Increase safety** at sea, in the coastal zone and in ports, through new and improved products and services
- **Better preparedness**, for emergency operations, at sea, in the coastal and in ports
- **Increased availability** of hydrographic data

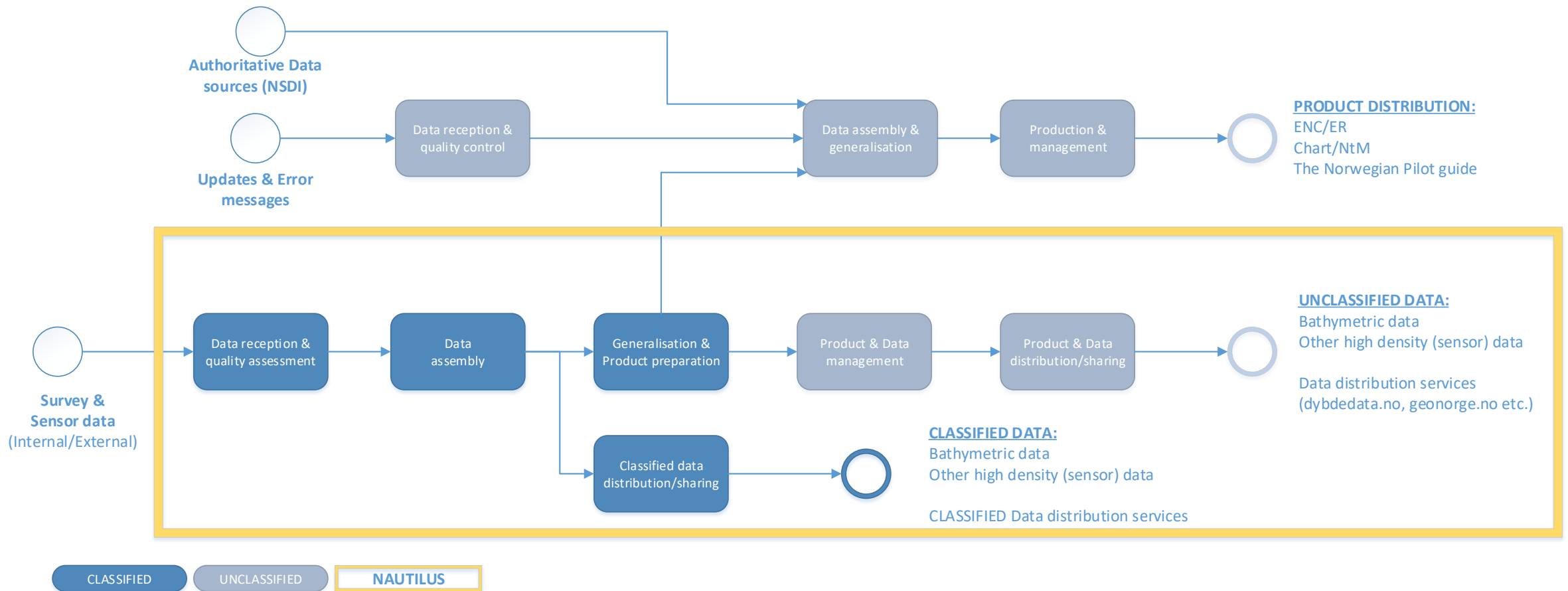
A modern solution, allowing more data faster accessible to more users

Rational / benefits

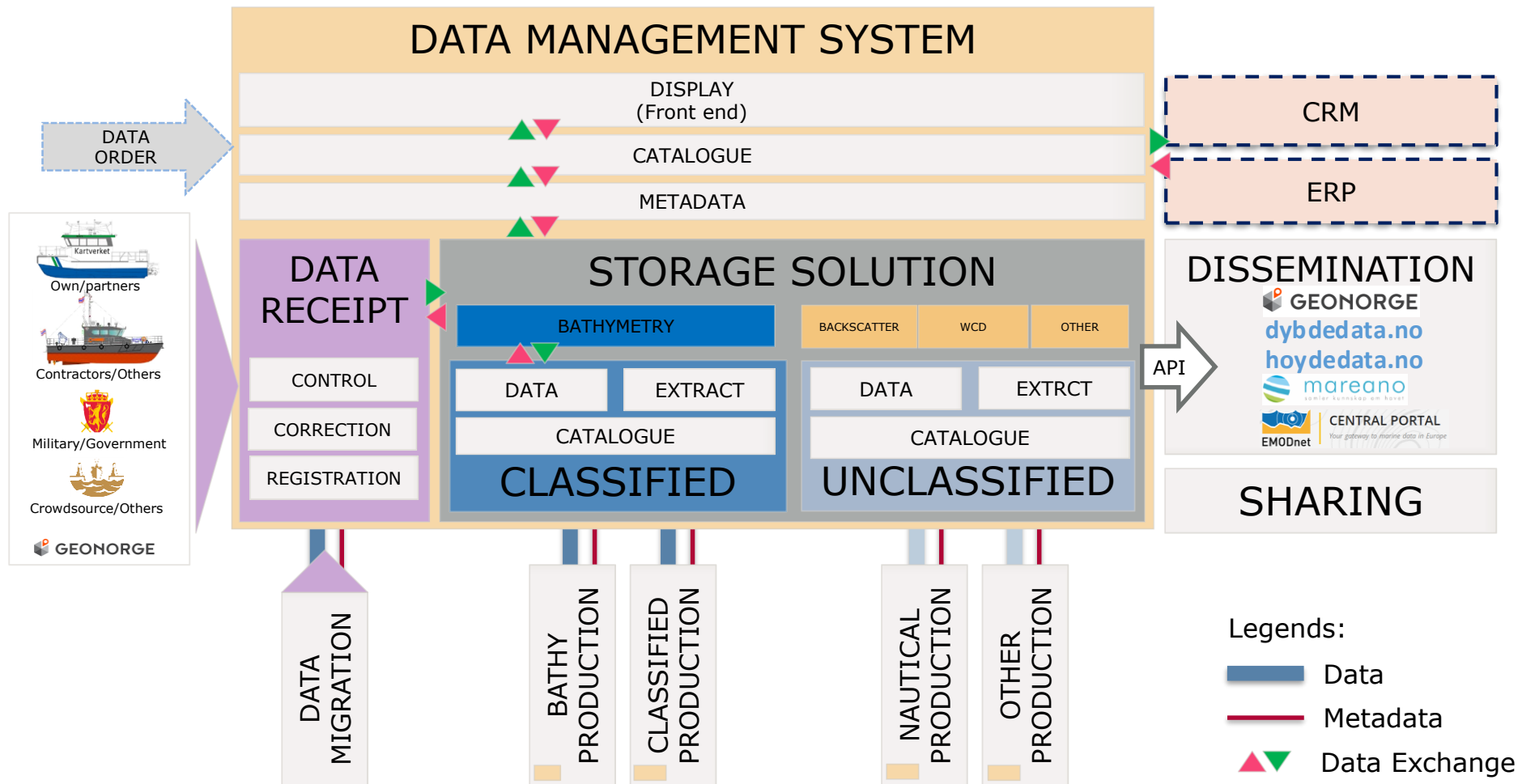
- Nautilus is mainly based on **user requirements and expectations**
- Ensure **effective access** to and **dissemination** of high resolution hydrographic data
- Enable and actively **seek innovation, machine-to-machine** solution, **automation** and **machine learning**
- Continued focus on **safe and efficient navigation** - *safety of life at sea*
- Better data will allow for **a more effective and environmentally** friendly maritime and marine business
- Significant **operational and financial values**, both in the form of increased activity and cost savings, for shipping, aquaculture, port operations, environmental activities, coastal zone planning for municipalities & counties etc. are expected with better access to high quality data.
- Improved ocean **knowledge and competence** that can be applied at national projects such as marine base maps
- Full alignment to NMA's **strategic roadmap**

NHS process

(simplified)



NAUTILUS modules



NAUTILUS 2022 - 2026

- Nautilus (as scoped) is planned to take 5 years to complete
- Estimated total cost is appr. €12,1 Mill. EUR
- Funded over the national budget from 2022
- The project will focus on both organizational as well as technological changes.