

**Connecting
— Seas —**

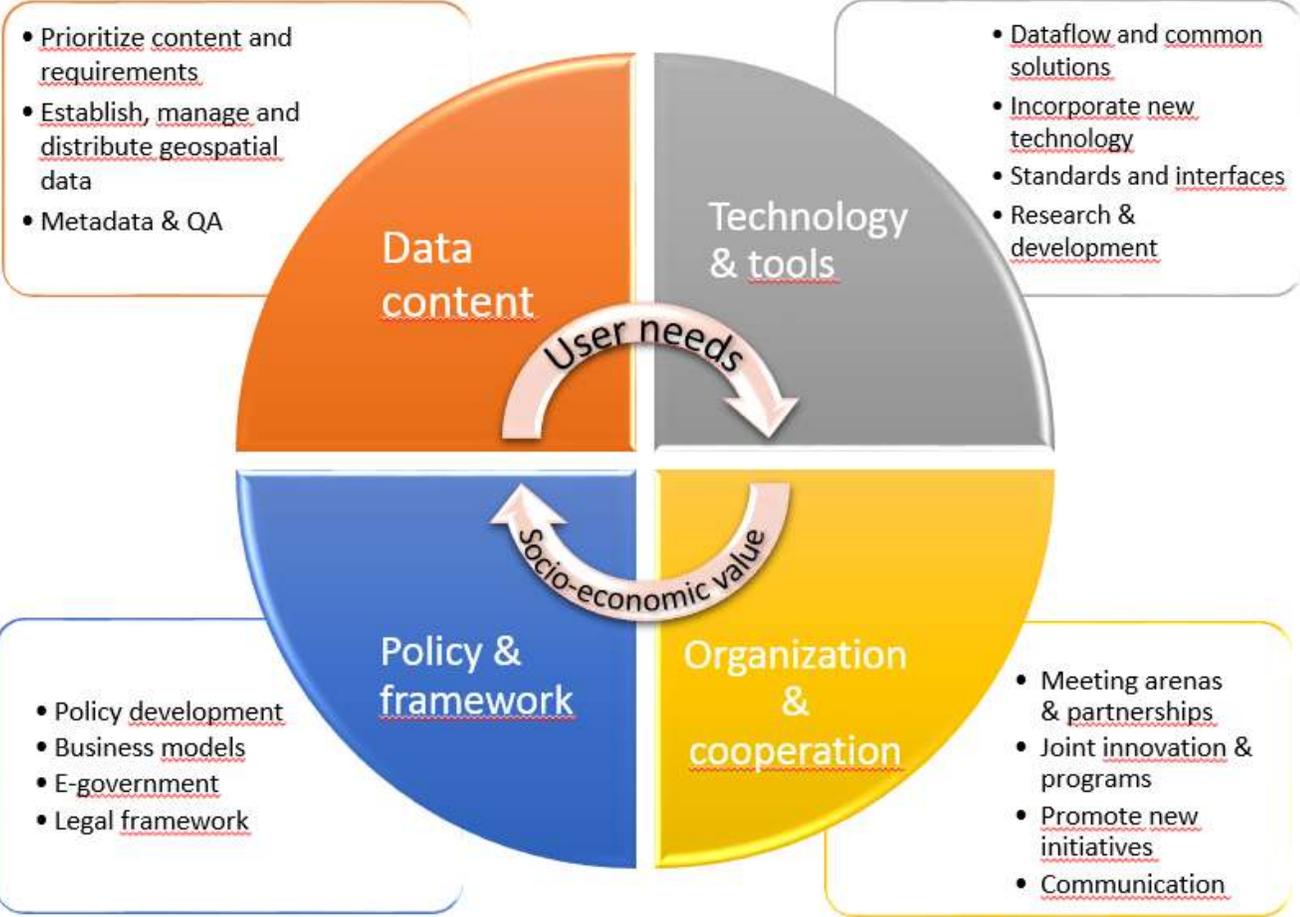
*NorthSEE – Baltic LINES
MSP conference*

Marine Spatial Management Tool

Gerhard Heggebø, Norwegian Mapping Agency, Hydrographic Service



Spatial Data Infrastructure

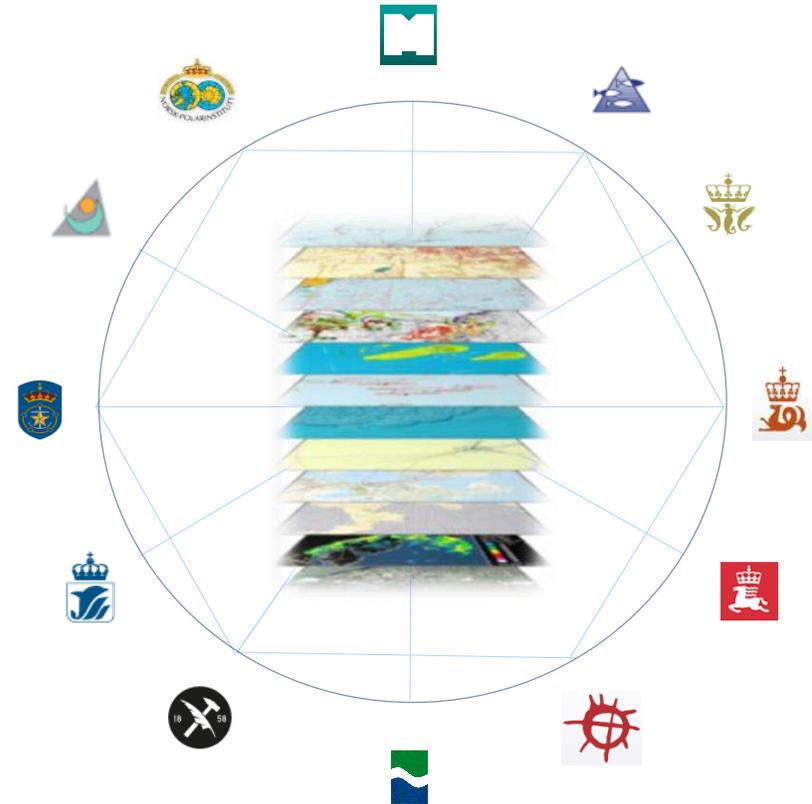


Marine Spatial Management Tool

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

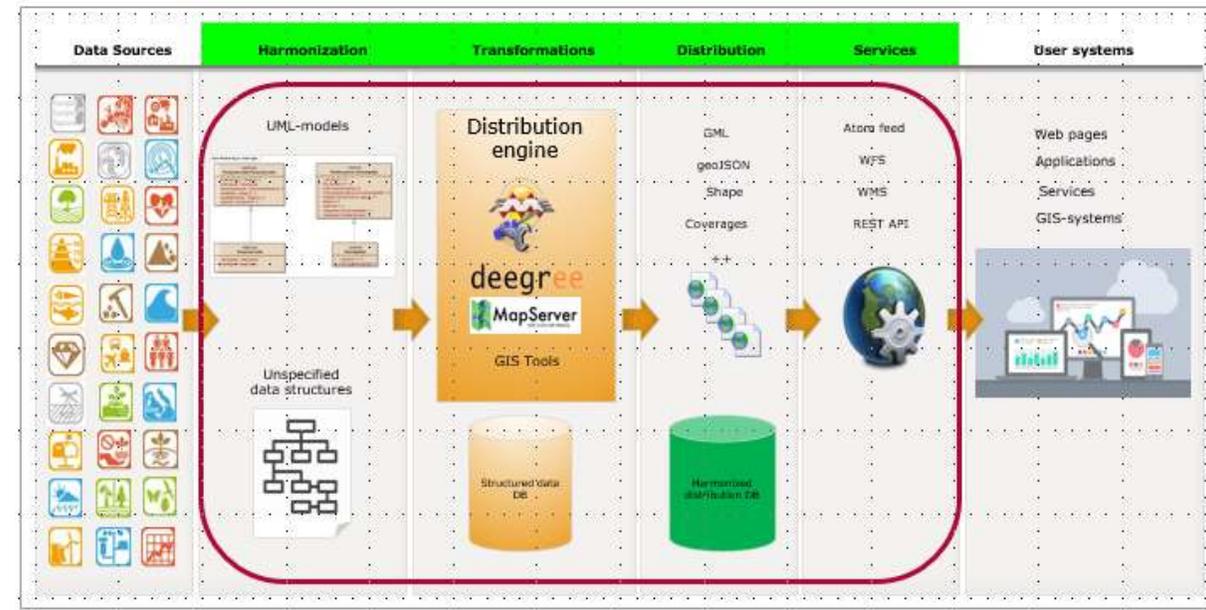


Marine Spatial Management Tool

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



Geonorge.no



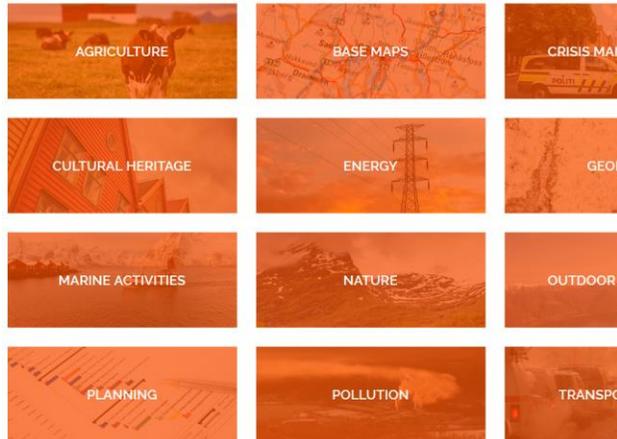
Map catalogue

Use the Geonorge map catalogue to search for, look at or download official Norwegian geodata

[Go to the map catalogue](#)

[Usernames and passwords](#)

TOPICS



| TITLE | TYPE | DATA OWNER | OPEN DATA | SHOW IN MAP | DOWN-LOAD |
|---|-------------|--------------------------------------|-----------|-------------|-----------|
| Hav og is - bølgekart | Dataset | Norwegian Meteorological Institute | | | |
| Ocean forecasts for the Nordic Seas (daily means) | Dataset | Norwegian Meteorological Institute | | | |
| Sea surface forecast | Dataset | Norwegian Meteorological Institute | | | |
| Kystinfo - Farledsforskrift | Application | The Norwegian Coastal Administration | | | |
| Marine transport - ISPS ports | Dataset | The Norwegian Coastal Administration | | | |
| INSPIRE Sea regions | Dataset | Norwegian Mapping Authority | | | |
| Marine transport - pilot areas | Dataset | The Norwegian Coastal Administration | | | |
| GeodataHI - Institute of marine research | Application | Institute of Marine Research | | | |
| Nasjonale laksefjorder i Finnmark | Dataset | Fylkesmannen i Finnmark | | | |
| Kystinfo Preperadness | Application | The Norwegian Coastal Administration | | | |
| Nautical chart vector | Dataset | Norwegian Mapping Authority | | | |
| Kystinfo web map solution | Application | The Norwegian Coastal Administration | | | |
| Electronic Navigational Charts (ENC) | Dataset | Norwegian Mapping Authority | | | |
| Sjøkart - elektroniske sjøkartdata | Dataset | Norwegian Mapping Authority | | | |
| The sea fishing registry in Norway | Dataset | Norwegian Environment Agency | | | |
| Strømretning og -fart | Dataset | Norwegian Meteorological Institute | | | |

Distributions

The service

| TITLE | TYPE | DATA OWNER | OPEN DATA | URL | SHOW IN MAP | FORMAT |
|--|-------------|--|-----------|-----|-------------|--------|
| Særlig verdifulle og sårbare områder WFS | WFS service | Norwegian Environment Agency | | | | GML |

Datasets the service operates on

| TITLE | TYPE | DATA OWNER | OPEN DATA | DOWN-LOAD | FORMAT |
|--------------------------------|------------------------|--|-----------|-----------|------------|
| Valuable areas in marine areas | External download site | Norwegian Environment Agency | | | ESRI Shape |

Contact information



Contact metadata:

wms@miljodir.no - Norwegian Environment Agency

Contact owner:

wms@miljodir.no - Norwegian Environment Agency

Contact publisher:

wms@miljodir.no - Norwegian Environment Agency

Distribution

Format:

- GML

Distribution type: WFS service

Get Capabilities Url: <http://wms.miljodirektoratet.no/geoserver/svo/ows>

Units of distribution: landsfler

Constraints

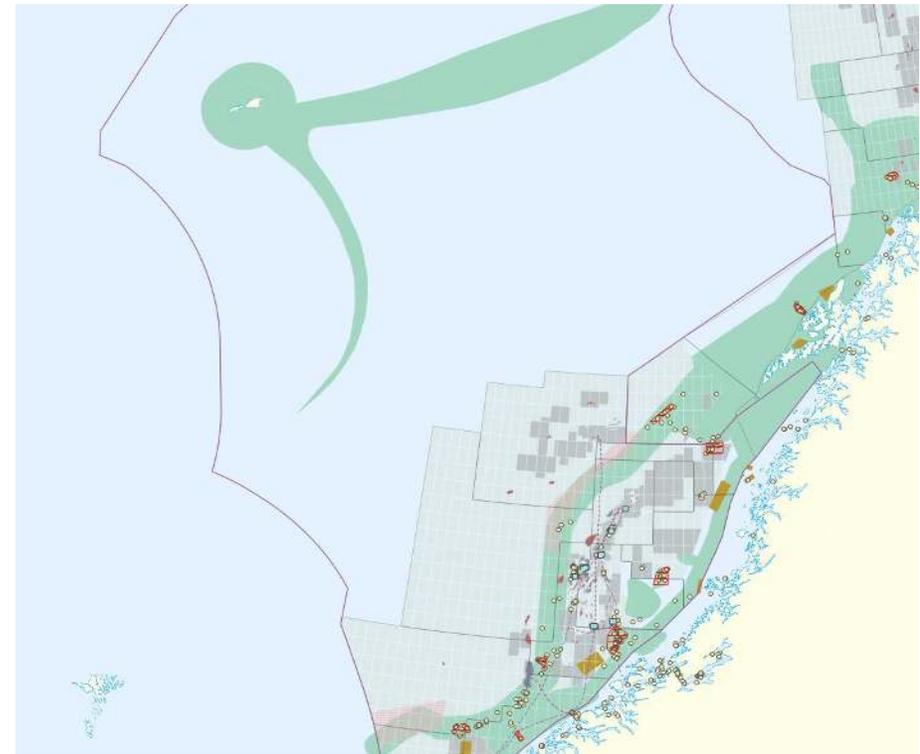
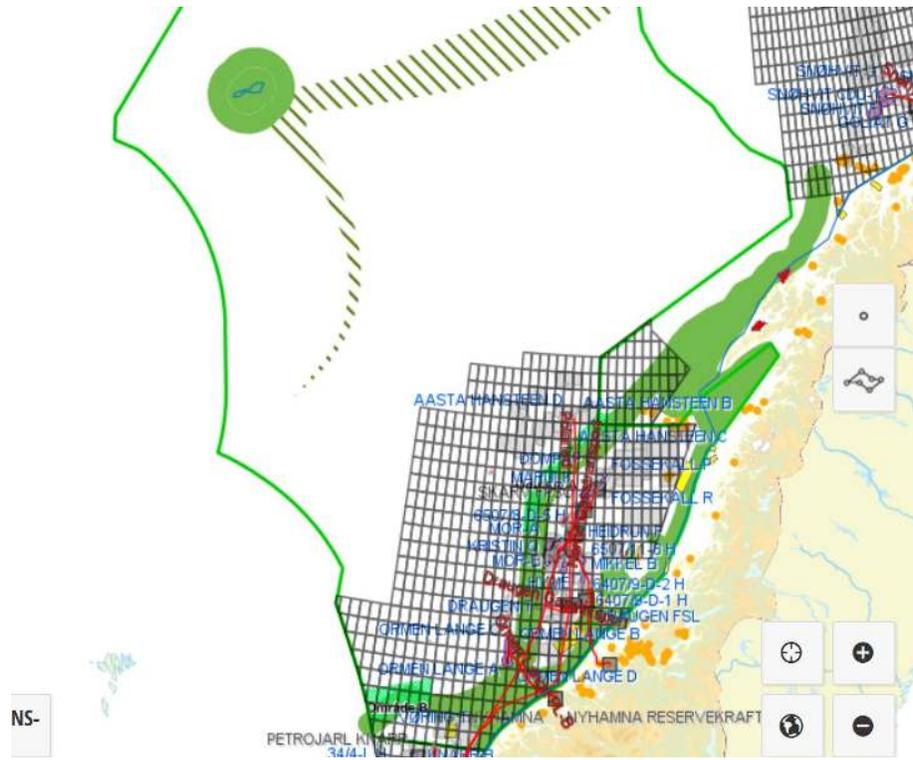
Use limitations: No conditions apply

Access constraints: Open data

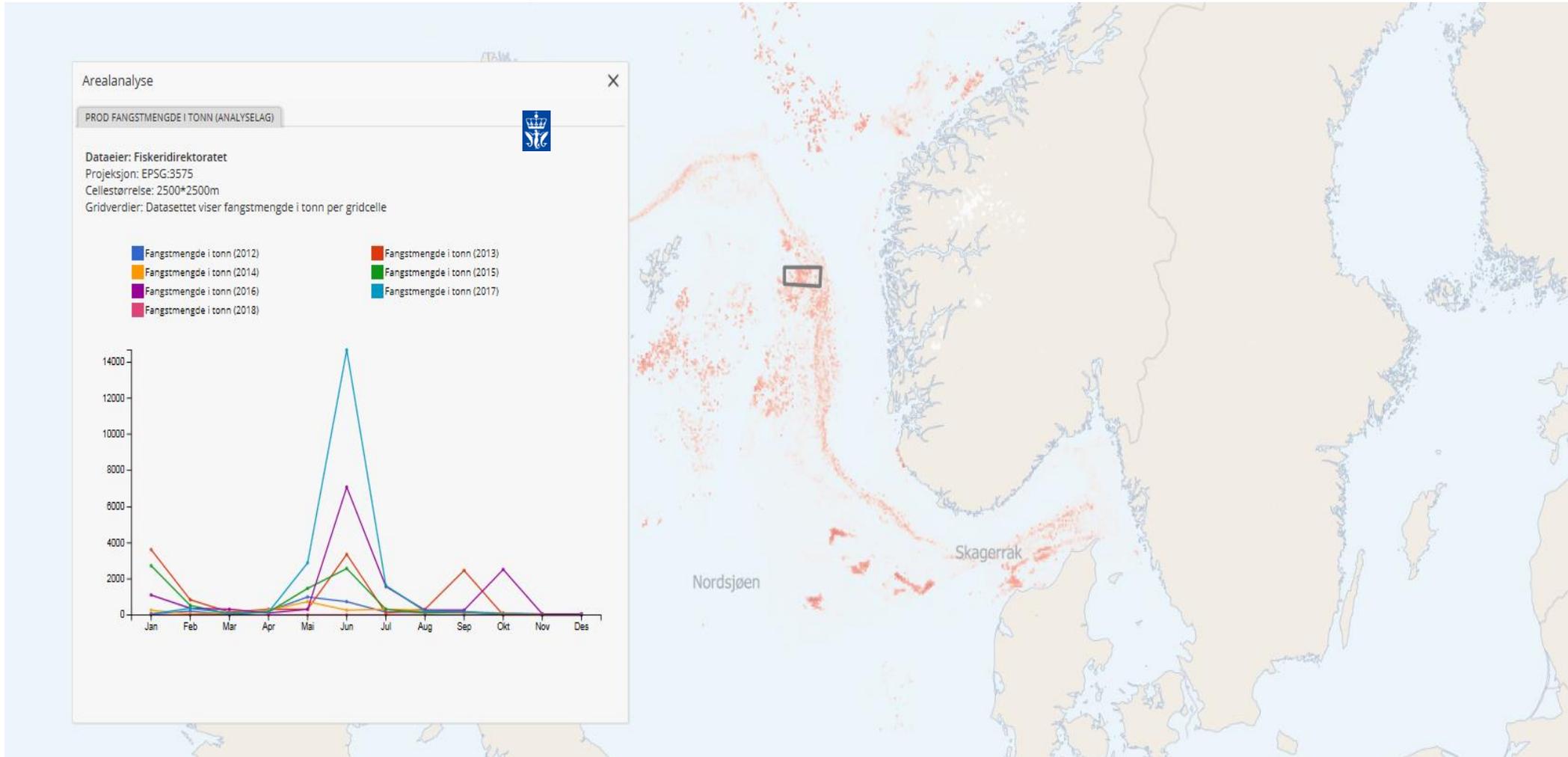
Reference laws: Stortingsmelding



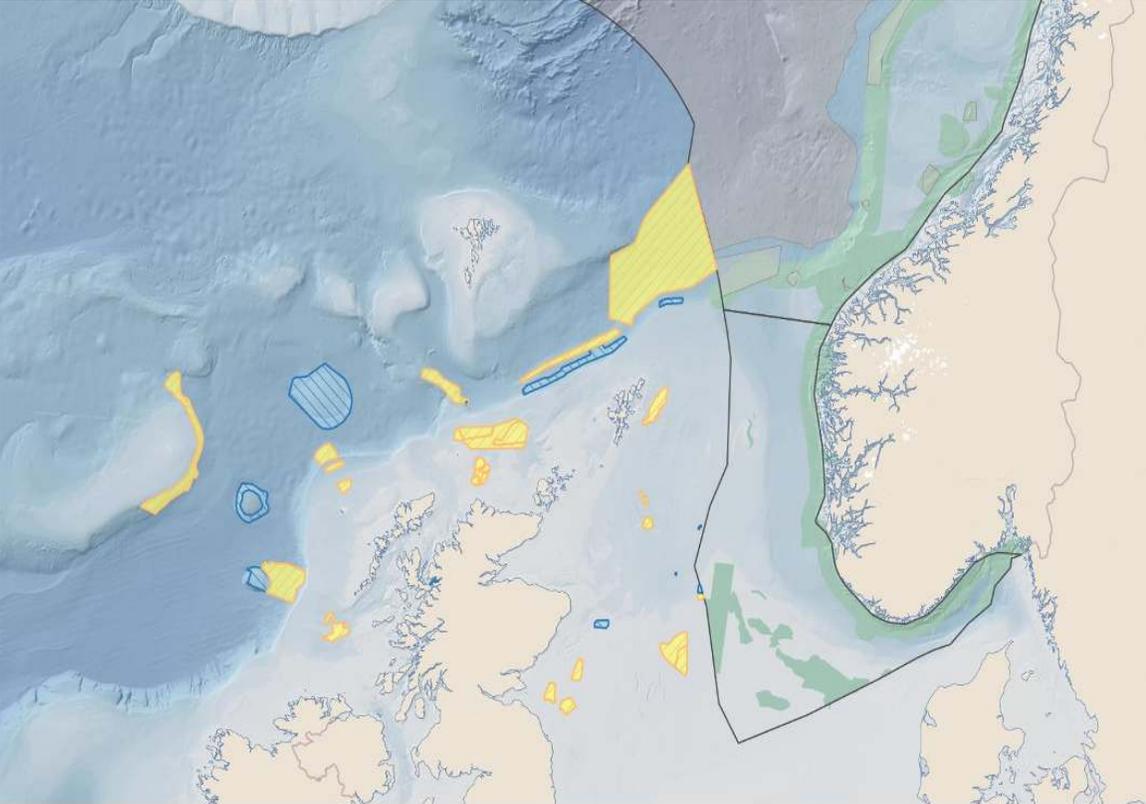
Harmonizing cartography



Geospatial statistics

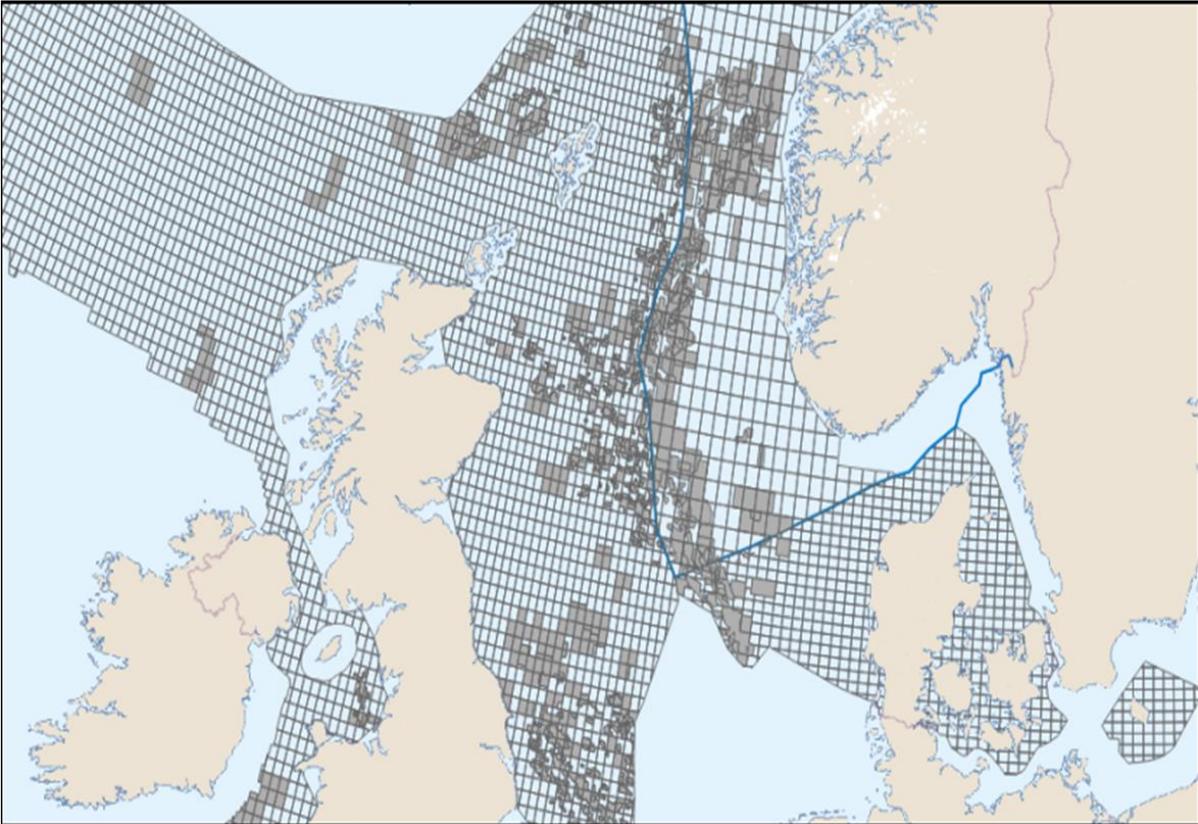


Re-use of data and services in a cross-border setting



Example from marine regulations - UK and Norway

Example from licencing systems - Norway, UK, Denmark



Marine Spatial Management Tool

Examples

Status at the moment:

- 30 main data categories available through MSMT
- 12 governmental agencies with responsibilities within the marine domain, provide their data respective thematic datasets and geospatial services



Base map



Base map (+ bathymetry)



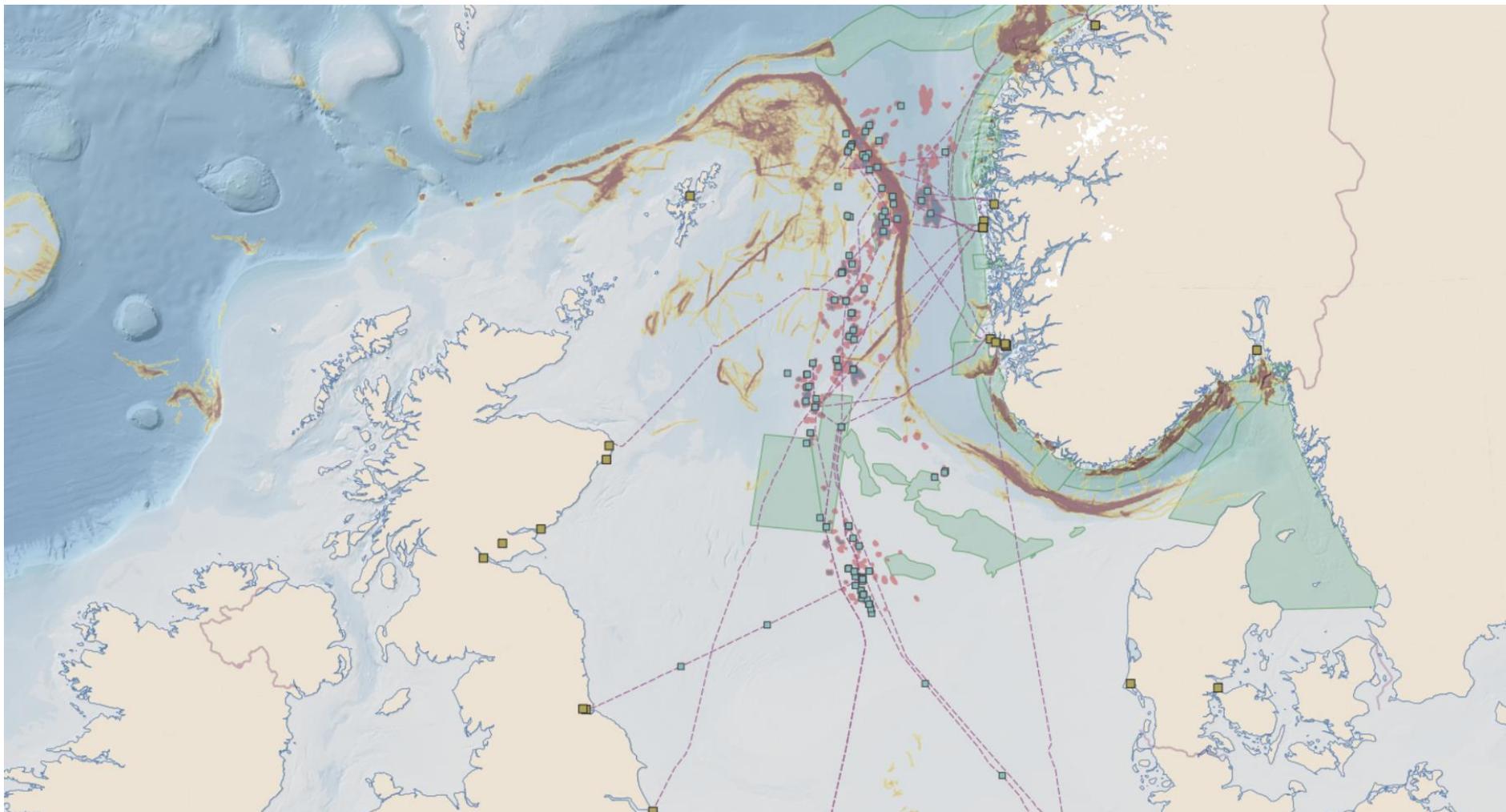
Particularly valuable marine areas  + Base map 



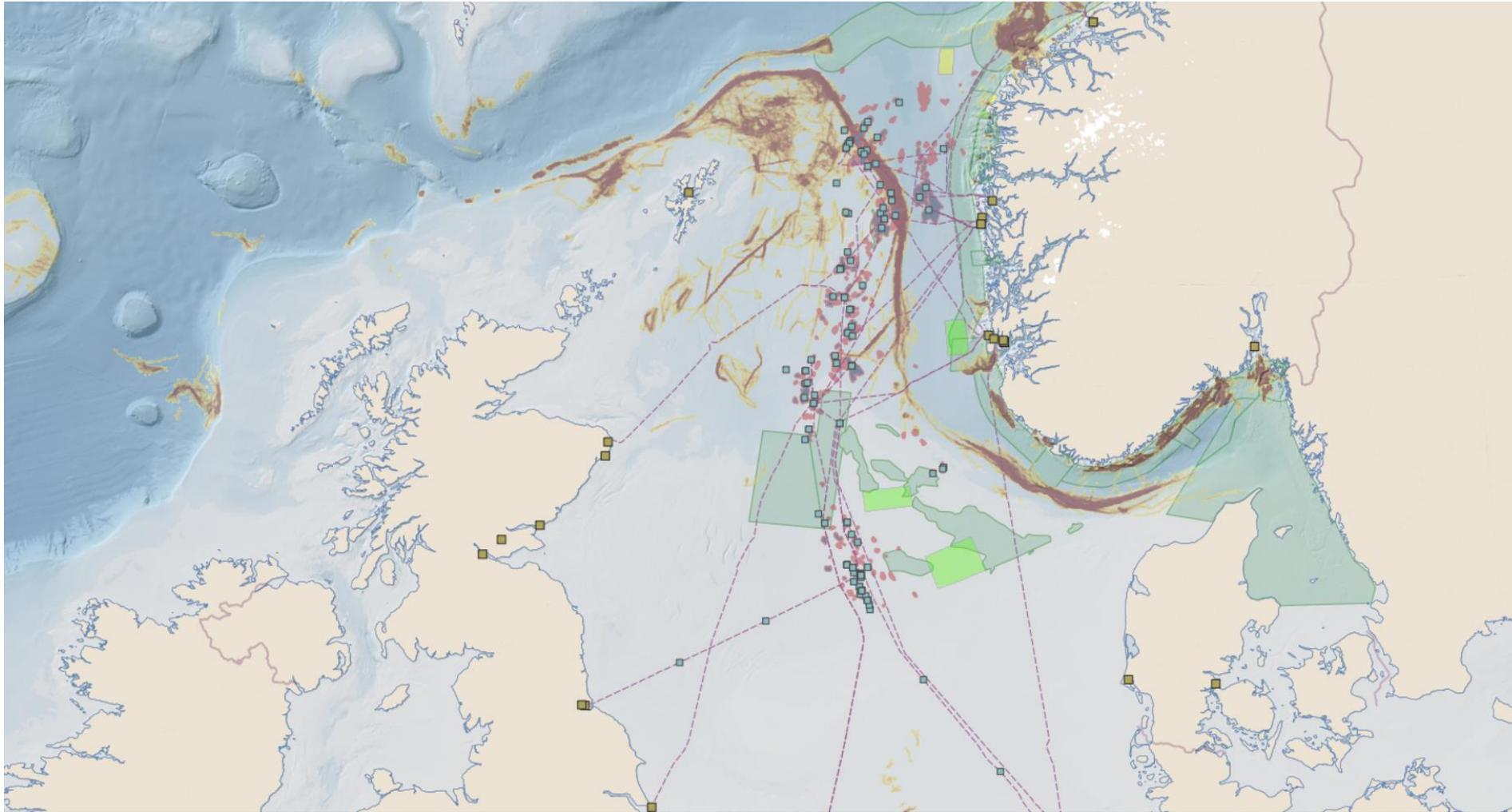
Commercial fishing + Valuable marine areas + Base map



Petroleum activity  + **Commercial fishing**  +
Valuable marine areas  + **Base map** 



Offshore wind farm assessments  + Petroleum activities  + Commercial fishing  + Valuable marine areas  + Base map 



Thank you!

<https://kart.barentswatch.no/arealverktoy>

