



EMODnet



European Marine
Observation and
Data Network

Your gateway to marine data in Europe

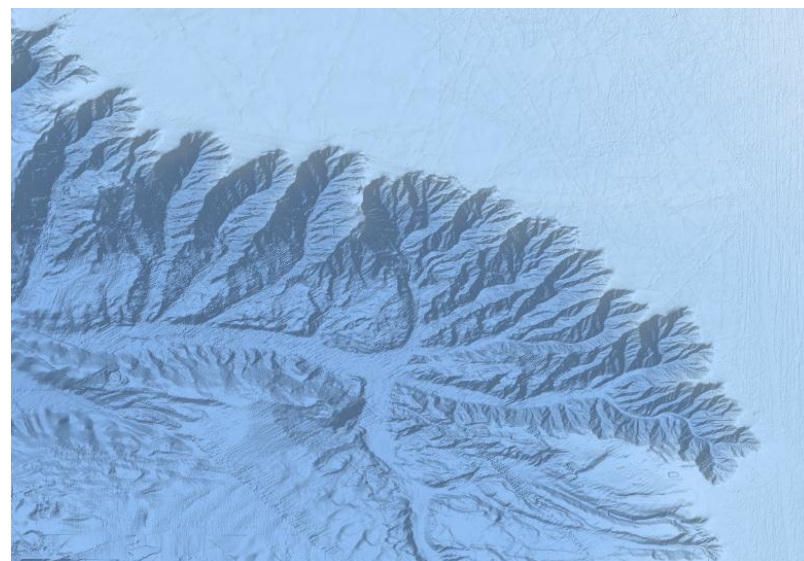
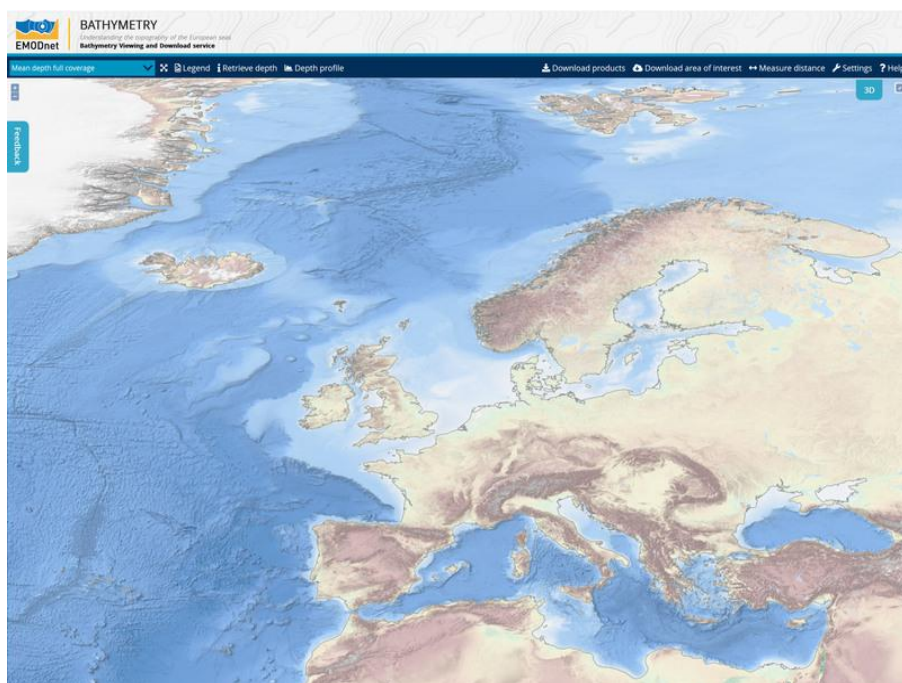


EMODnet Bathymetry : TSCOM/SCRUM update

Thierry Schmitt (Shom)

On behalf of the EMODnet High Resolution
Seabed Mapping Consortium

New EMODnet Bathymetry DTM 09/2018



- Resolution increased from $1/8 * 1/8$ arc minutes to $1/16 * 1/16$ arc minutes (circa $115 * 115$ meters);
- The EMODnet DTM now contains $113892 * 108132 =$ circa 12.3 billion data points;
- Expanded coverage including all European seas as well as the European part of the Arctic Ocean and Barents Sea;
- The inclusion of Satellite Derived Bathymetry data products, in particular for coastal stretches of Spain and Greece.
- <http://doi.org/10.12770/18ff0d48-b203-4a65-94a9-5fd8b0ec35f6>

EMODnet Bathymetry: Consortium

- 41 collaborating European organizations

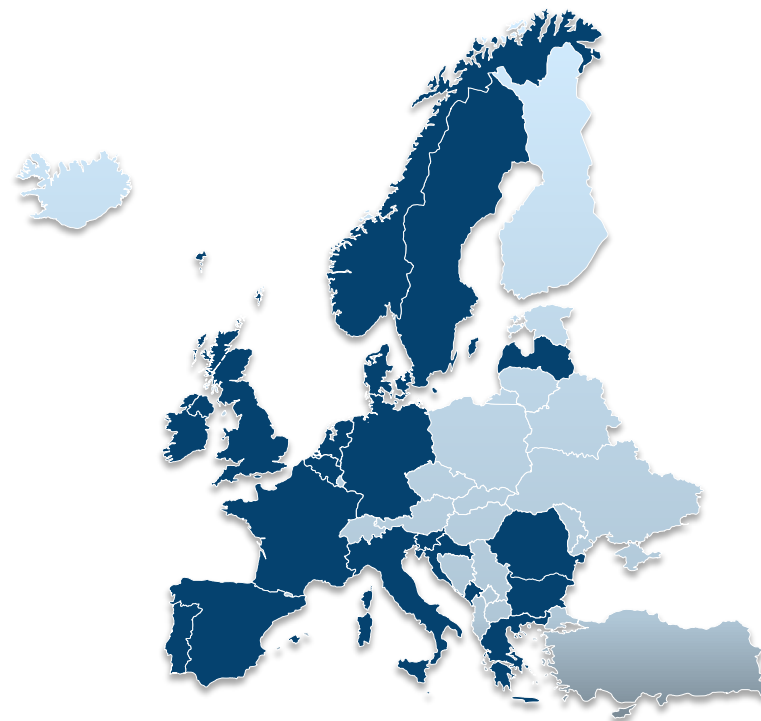
➤ Hydrographic Offices



➤ Research Institutes



➤ Small and medium-sized enterprises



Main Spirit



- Unified method and tools for data and metadata production
- Distributed role, from the local data provider to the basin coordinator and from the basin coordinator to the integration to the portal
- Distributed infrastructure
- Data diffusion is managed at the data provider level, respecting his own data policy.

Data inventory and Product

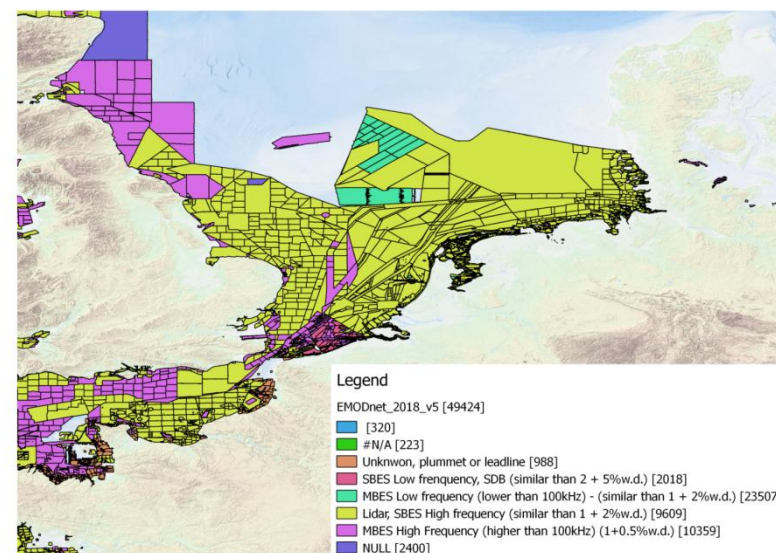
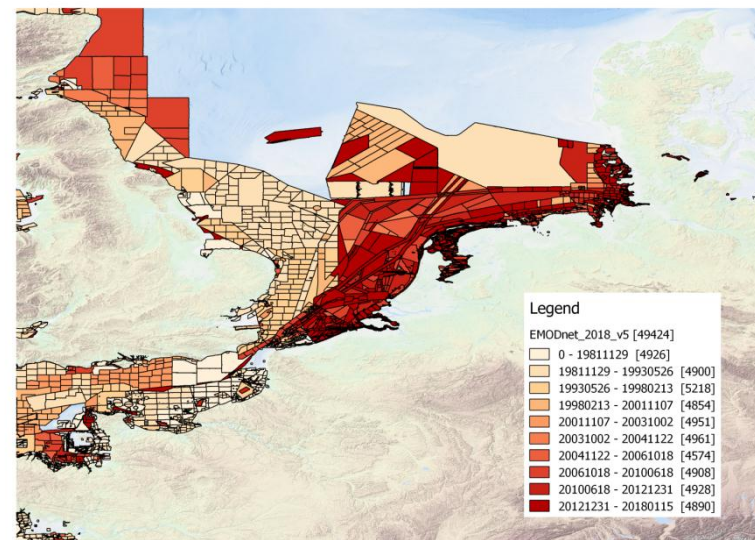
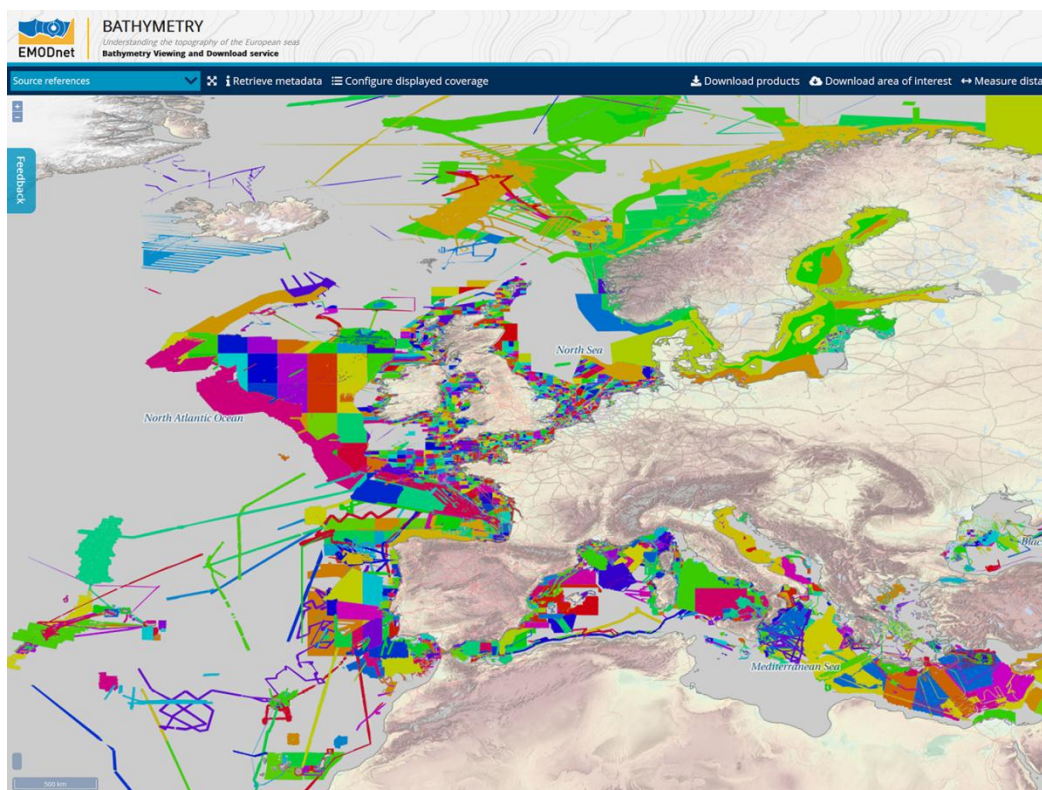
- **2 Catalogues** for Survey Data sets and Composite DTM
 - ~ **27 000** INSPIRE compliant metadata using the SeaDataNet common vocabulary

The screenshot displays the BATHYMETRY EMODnet website interface. On the left, there are search filters for 'Geographical Box', 'Time period', 'Measuring area type' (surface, curve, point), 'Parameter categories' (Gravity, magnetism and bathymetry, Terrestrial, Field geophysics, Administration and dimensions, Water column temperature), and 'Disciplines' (Marine geology, Terrestrial). The main content area shows a table of data sets with columns for 'Data set name', 'Disciplines - Topics', and 'Instruments'. The table lists three data sets: 'S196900100-016', 'S196900100-014', and 'Zeegebied_Havens_NPT_HAV'. The 'Zeegebied_Havens_NPT_HAV' data set is highlighted. Below the table, there is a map of the Adriatic Sea with a search box and a 'Reset filters' button. On the right, there are two panels: 'Baltic Sea Bathymetry Database' and '574 EMODNET REGIONAL DTM OF NETHERLANDS CONTINENTAL SHELF'. The bottom right panel shows a bathymetry map of the Adriatic Sea with a color scale from blue (deep) to red (shallow).

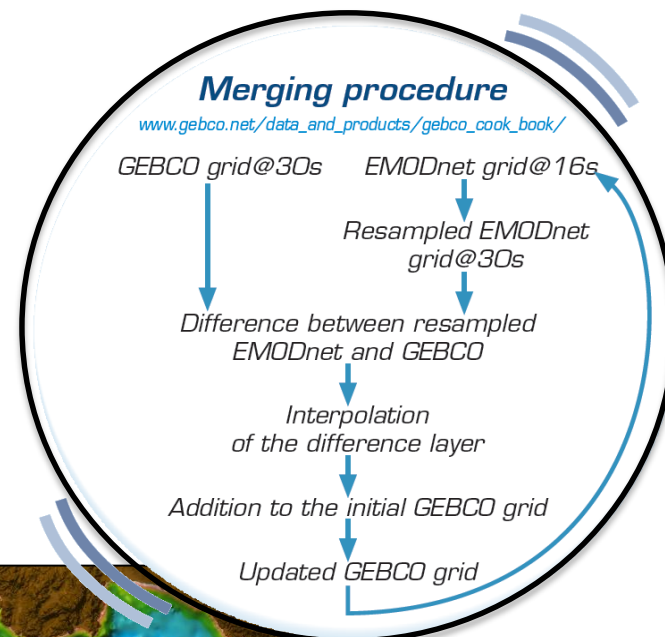
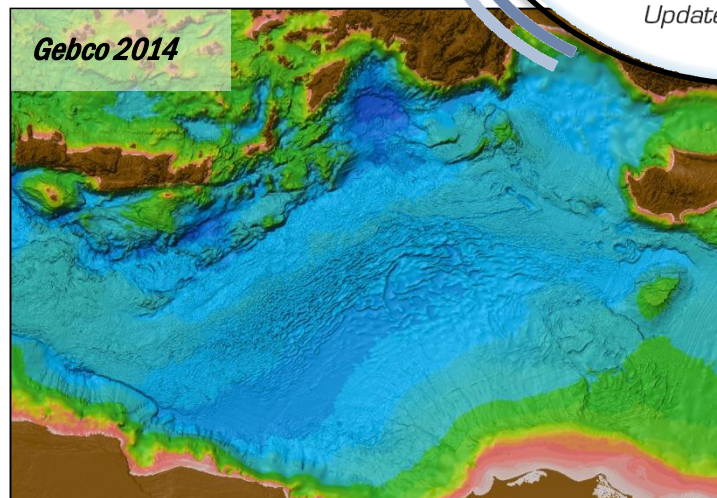
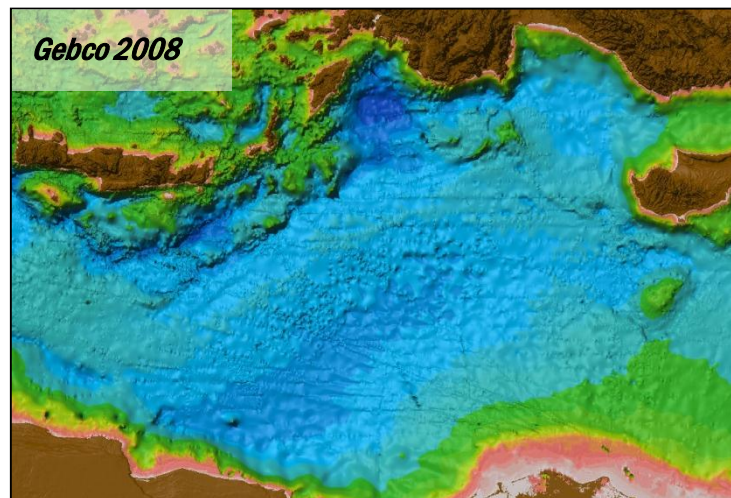
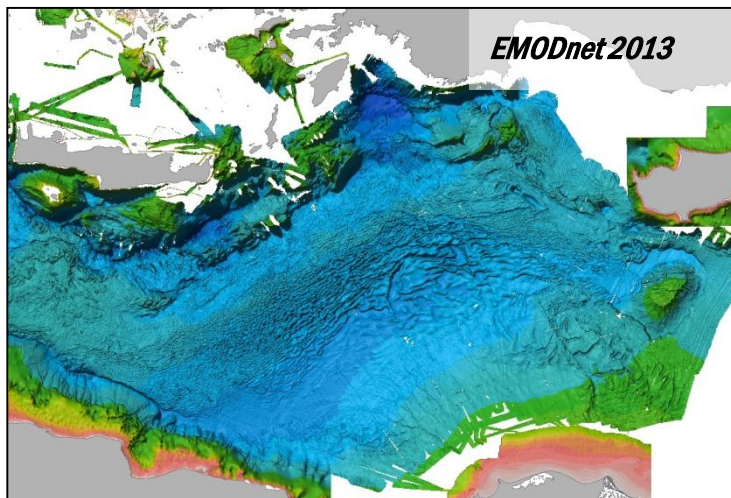
- A **Digital Terrain Model** for European seas available in various formats (ASCII, NetCDF, XYZ, RGB GeoTiff, ESRI ASCII, QPS SD) and services (WMS, WFS, WMTS, WCS)

Bathymetry Digital Terrain Model: Quality assessment

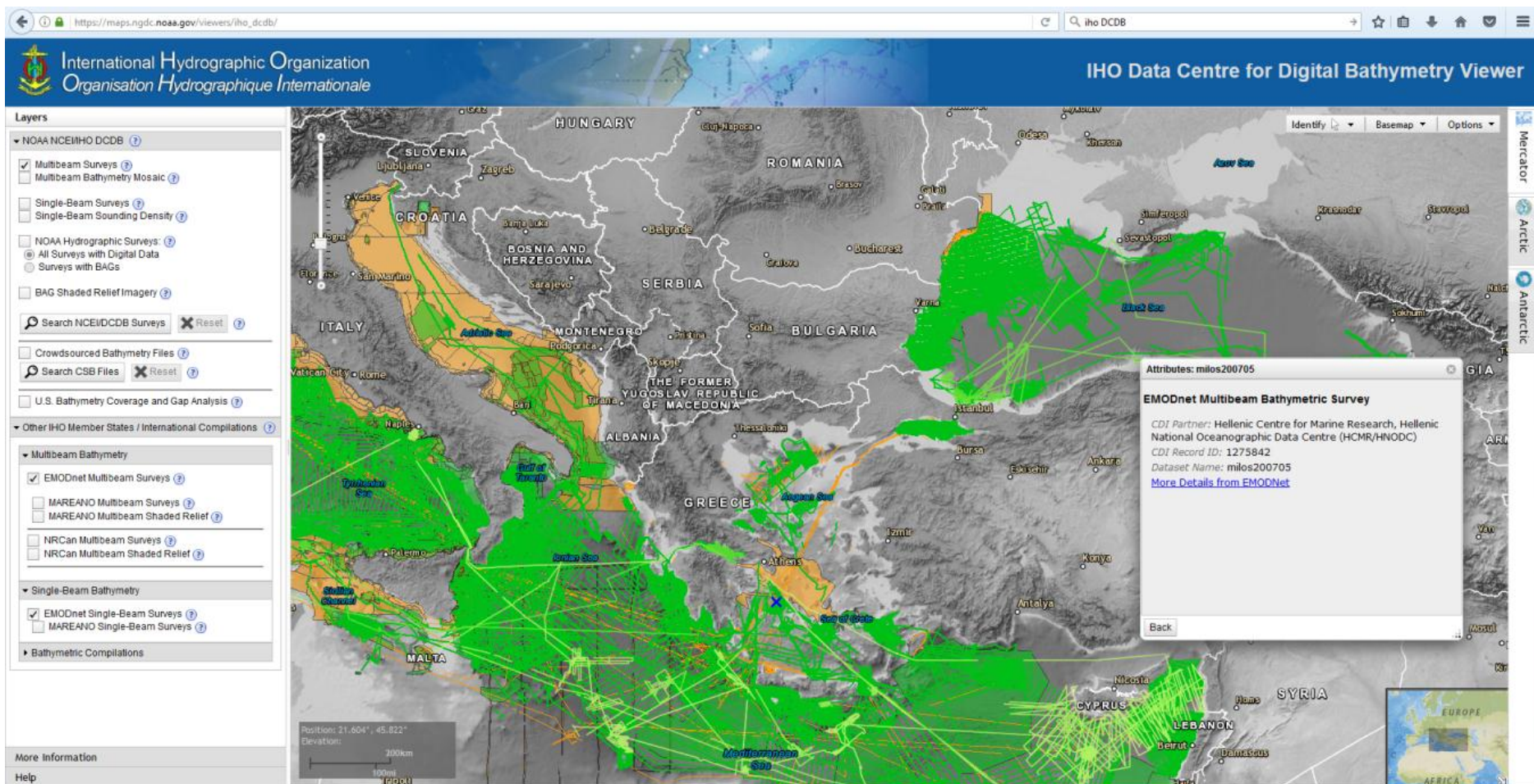
- Source reference map
- Direct relation to each survey and their qualitative description (Vertical, Horizontal, Age, Purpose)



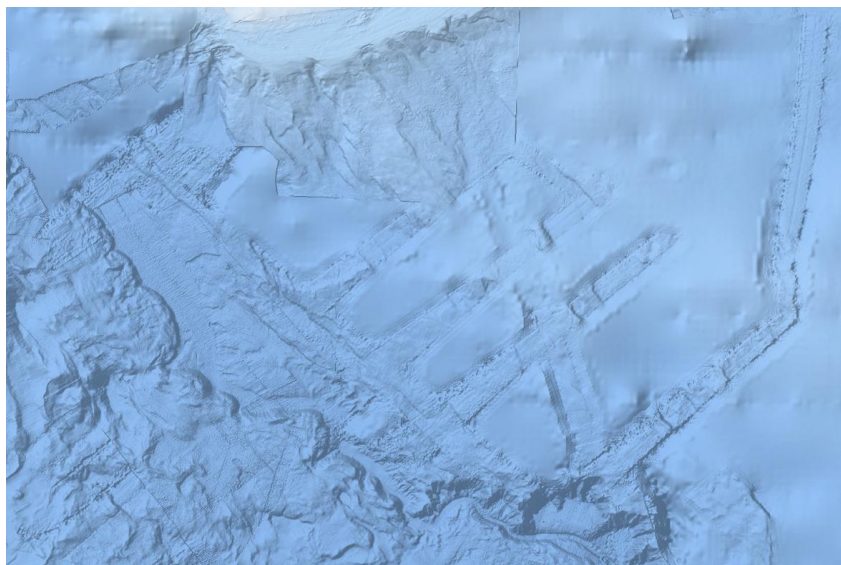
GEBCO EMODnet a virtuous cycle



IHO DCDB bathymetric data inventory



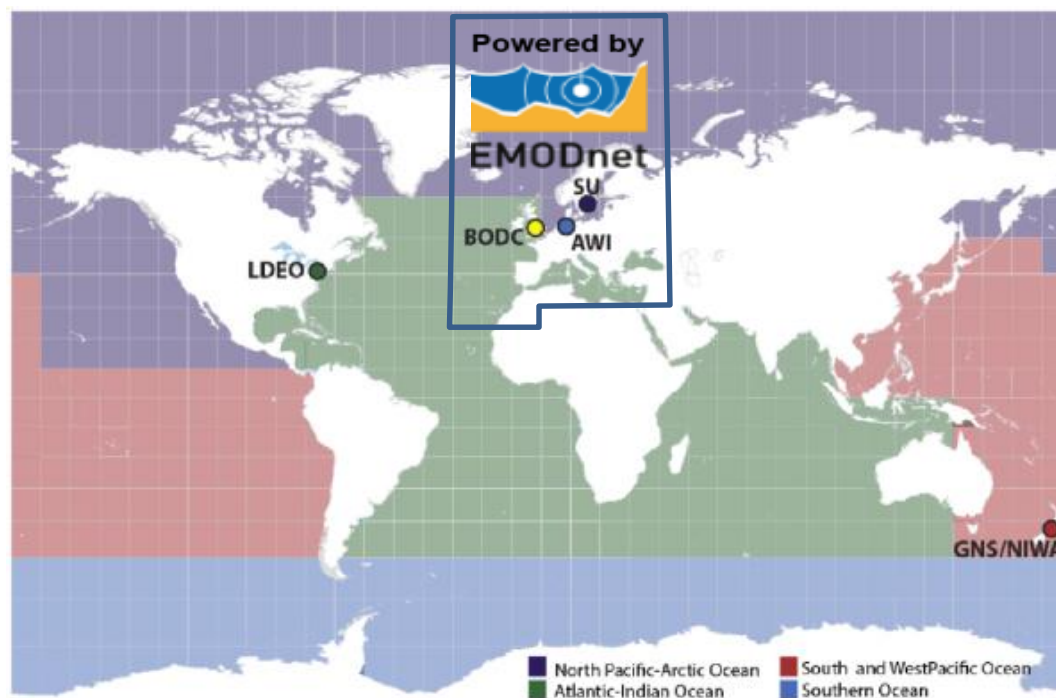
GEBCO/SEABED 2030 and EMODnet Technical improvements



Conclusions and Future works

EMODnet Bathymetry is providing ways to:

- **Discover bathymetric data:** inventory of existing data in EU and from EU organizations worldwide, with associated metadata.
- **Share data:** Access to source data is ensured. EMODnet Bathymetry provides the facility for the provider and the user to set the conditions of the use of the bathymetric data.
- **Find gaps and fill them:** using for example satellite derived bathymetry near the coast





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