# EMODnet Bathymetry

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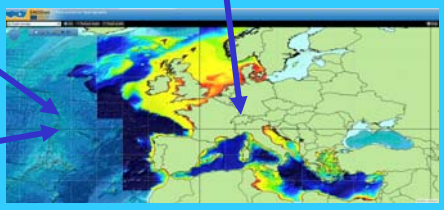
www.emodnet-hydrography.eu

## Hydrographic portal


http://www.emodnet-hydrography.eu

CDI metadata service

Sextant metadata service

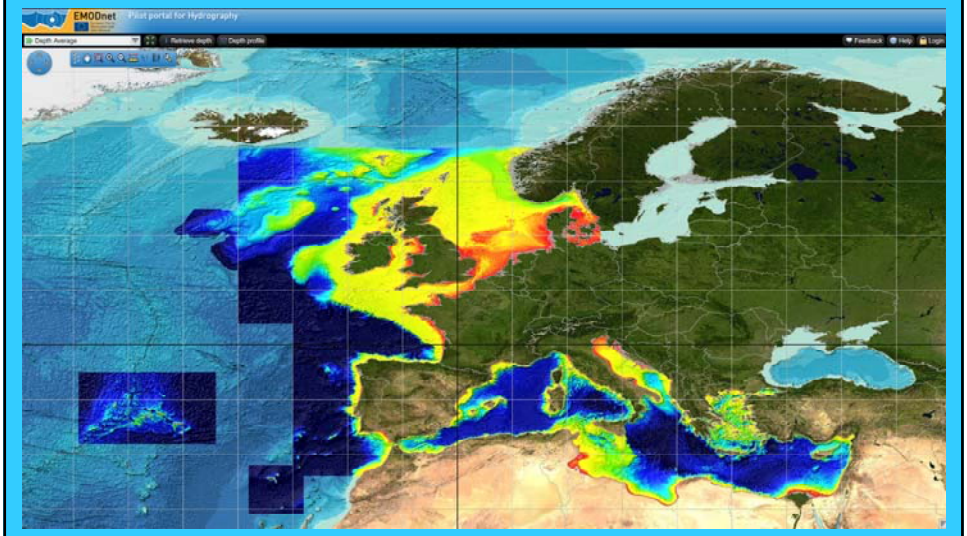


Data products service

## Results from previous Hydrography and Seabed mapping projects

- Up till today, **9126** survey CDI metadata records from **15** data centres and **127** data originators from **1816 till 2013** have been collated and imported into a dedicated EMODnet Hydrography CDI data discovery and access service. This service was launched in May 2010 and has been upgraded over time with extra functionality and more entries
- These survey data and other gathered composite DTMs have been collated into regional EMODnet DTM's that are available for viewing and downloading in several formats via the Hydrography Products portal service.
- The dedicated EMODnet Hydrography products portal has been launched in May 2010. It sits atop of the central DTM database and interacts with the CDI service and with OGC WMS services
- Early 2013 also the Sextant Data Products service has been added to give metadata about the composite DTMs that have been used next to survey data sets.

## Hydrographic Data Products viewing service




*DTM for European sea basins (0,25 * 0,25 minutes grid)*

## EMODNet Bathymetry – scope of new project

- Increasing the resolution of the DTM from ¼ to 1/8 of a minute of lat – lon (ca 225 m* 225 m) for all sea regions
- Including missing sea basins:
  - Black Sea
  - Baltic Sea
  - Norwegian + Icelandic Sea
  - Canary Islands as part of Macaronesia
- Including new data sets, also for existing regions and partners
- 3 coastal digital terrain models at higher resolution

## Bathymetry – partnership

- **MARIS – NL** (Coordinator)
- **NERC – NOC – UK**
- **GGSGC – NL**
- **GSI – IE**
- **SHOM – FR**
- **OGS – IT**
- **HCMR – GR**
- **DdH - NL**
- **HO - Norway – NO**
- **OGS – IT**
- **IHPT – PT**
- **NIOZ – NL**
- **IO-BAS – BG**
- **EMEPC – PT**
- **IFREMER – FR**
- **NERC – BODC / GEBCO - UK**
- **IEO – ES**
- **IHM - ES**
- **UNEP-GRID Arendal – NO**
- **CNR – ISMAR - IT**
- **BSH - DE**
- **MOW - BE**
- **HO - Denmark – DK**
- **IPMA – PT**
- **ICM-CSIC – ES**
- **OceanWise - UK**
- **HO Faroes – FO**
- **NPD – NO (only data provider)**

- Consortium expanded with new partners and associate partners, including GEBCO

## EMODNet Bathymetry – Workplan

- Continue with and refine the **methodology and use of dedicated software packages**; this also includes involving regional groups of experts;
- New challenge of producing DTMs with an even **higher resolution**, wider coverage and more regional data providers;
- Improve and expand the functionality of the EMODnet **CDI Data Discovery and Access service** for handling data requests in an efficient way;
- Extend the **hydrographic viewing service** for handling also high resolution coastal DTMs and develop further the facilities for uploading data sets and DTMs posted by external providers;
- Develop further the **Sextant data products catalogue service,** used for documenting composite DTMs with product metadata, in functionality and coverage and establish further integration with the Hydrographic viewer.

## EMODNet Bathymetry – special challenges

- **North Sea**: Improving the coherence of the integrated DTM for the North Sea area by adoption of common reference depths and separation models. Adding CDI metadata where possible
- **Black Sea**: approach possible Russian, Romanian, Ukrainian and Turkish data holders for the Black Sea; plus analyse research cruises in the Black Sea as part of EU RTD programmes
- **Baltic Sea**:
  - Swedish Maritime Administration (SMA) coordinates the **Mona Lisa project** which is 50% co-funded by the EU with 11.2 million Euro as part of Trans-European Transport Network (TEN-T) programme. A large budget is dedicated to acquiring new multibeam surveys for major navigation routes in the Baltic Sea.
  - SMA is chairing the Baltic Sea Hydrographic Commission (BSHC), and also the Sea Bathymetry Database Working Group of BSHC (BSHC-BSBDWG). This group is working on a harmonised DTM for the Baltic Sea with a resolution of 500 * 500 meters => seeking synergy
- **Cooperation with GEBCO**, striving for uptake of EMODnet DTM as European coverage in GEBCO
- Further deploying facilities for direct uploading and DTM processing of survey data sets by potential data holders, such as harbour authorities, coastal managers, industry

## EMODNet Bathymetry – Progress

- Kick-off meeting in 17 – 18 June 2013 in Lisbon – Portugal
- Extensive minutes and action list formulated
- Project presented at MODEG meeting, 5th July 2013, Copenhagen - Denmark
- Activities for contract and succesive amendment with EU, Consortium Agreeement and Subcontracts => nearly all signed
- Partners working on gathering additional survey data sets and preparing these for use in the project (CDI, composite DTMs, survey data)
- Subgroup has refined and updated the QA/QC and DTM processing methodology document => will be published soon
- IFREMER makes good progress with upgrading the DTM software package GLOBE, which will be made available to partners under free licence

## EMODNet Bathymetry – Progress

- EMODNet Bathymetry project presented at 4 Conferences:
  - IMDIS 2013, organised by SeaDataNet, 23-25 September 2013, Lucca - Italy
  - MARES 2020, organised by IO-BAS, 17 – 20 September 2013, Varna – Bulgaria
  - GEBCO Science Day, 8th October 2013, Venice – Italy, establishing good cooperation with GEBCO and leading to possible extra data / DTM contributions from John Hall for Southern Med and Black Sea
  - BS – GES Conference, organised by Black Sea secretariate, 28-31 October, Constanta – Romania, leading to contacts with GeoEcoMar, Romanian HO and SME with possible Black Sea survey data
- Contact with MARUM (Germany) via German MANIDA project with possible Black Sea survey data (German research vessels)
- Contact with DEU (Turkey) via Turkish MODEG member with possible Black Sea survey data (Turkish research vessels)
- German partner BSH has participated in BSHC meeting and is making progress in establishing cooperation / synergy with the Baltic Sea Bathymetry project

## EMODNet Bathymetry – Progress

- Meeting at Netherlands HO to discuss approach for the North Sea
- Next Project progress meeting and training workshop planned with all partners and subcontractors, 27 – 30 July 2014, Tenerife – Spain