



BATHYMETRY

Understanding the topography of the European seas

EMODnet Bathymetry Workshop “A harmonised Digital Bathymetry for European seas”

Place: Oceanology International 2018, Gallery Room 2 of the Excel Centre, London, UK

Date: Tuesday 13 March 2018, 14:00 – 17.00 hours

Contact: Dick M.A. Schaap – MARIS (dick@maris.nl)

Registration: registration beforehand is preferred in order to have an idea of participation. Please complete the Doodle with your name, affiliation and email address at: <https://doodle.com/poll/zs4d6hetyy4c8mie>

Programme:

13:45 – 14:00 hours – registration

Presentations are each 15 minutes with 5 minutes Q & A.

14:00 – 14.20 hours – Introduction and overall approach by Dick M.A. Schaap – MARIS (Netherlands) (short intro about EMODnet, history of EMODnet Bathymetry, gathering of survey data sets using SeaDataNet standards and services, and perspective for the new EMODnet DTM that will be released mid 2018)

14:20 – 14:40 hours – How to go from data to the EMODnet Digital Terrain Model by Thierry Schmitt – Shom (France) (presentation about workflow from selection and pre-processing of survey data, common grid, using of Globe software for building DTM, QA-QC elements, including references to track used data sets, approach by regions, to integration.)

14:40 – 15:00 hours – Demonstrating viewing and interacting with the current EMODnet Digital Terrain Model by George Spoelstra – GGSGC (Netherlands) (demonstrating the functionality of the Viewing and Download service of the EMODnet Bathymetry portal and preview of 3D services)

15:00 – 15:20 hours – Determining best-estimate European digital coastlines by Sandra Gaytan Aguilar – Deltares (Netherlands) (matching high-resolution coastal data and satellite images to relevant vertical references, derived from a European hydrodynamic model)

15:20 – 15:40 hours – break for refreshments

15:40 – 16:00 hours – Satellite Derived Bathymetry and BASE-platform by Knut Hartmann – EOMAP (Germany) (how to derive bathymetry from satellites, optical products prepared for EMODnet, and more about products and services of BASE-Platform)

16:00 – 16:20 hours – Using the EMODnet Bathymetry DTM for the Netherlands storm surge mathematical model by Firmijn Zijl – Deltares (Netherlands) (development of the new storm, surge model, the integration of the EMODnet DTM as geometry, and computing results)

16.20 – 16.40 hours – How to wake up your data using the EMODnet Ingestion portal by Dick M.A. Schaap – MARIS (Netherlands) (aims and approach for identifying and making dispersed data sets part of European marine data infrastructure for wider use, and explaining data ingestion workflow)

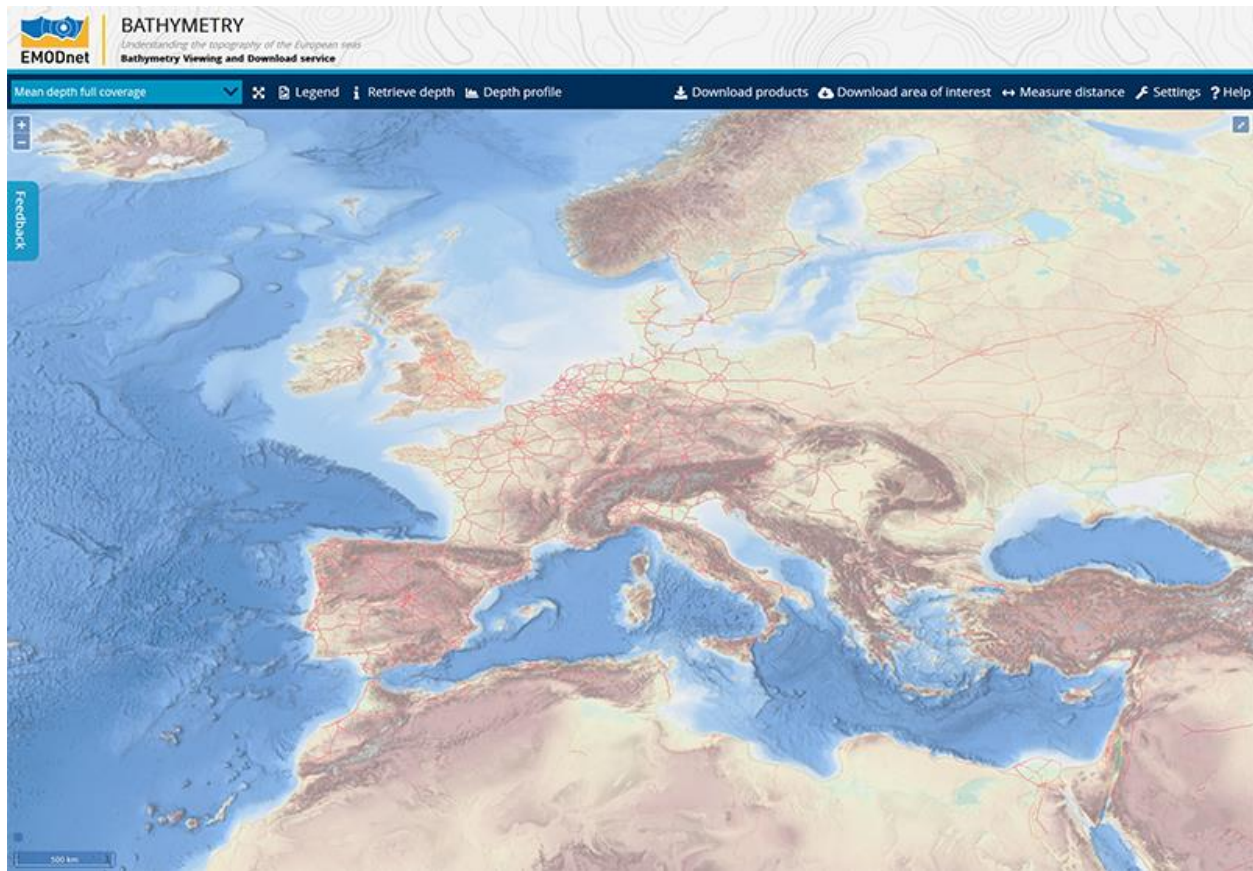
16:40 – 17.00 hours – Open discussion

Abstract:

In 2008 the EU DG-MARE took the initiative for developing and implementing an overarching European Marine Observation and Data Network (EMODnet) as part of the “EU MARINE KNOWLEDGE 2020” and “EU BLUE GROWTH” agendas which consider ocean and marine data as important input for driving scientific, environmental and economic developments.

Since 2008 the EMODnet Bathymetry portal (www.emodnet-bathymetry.eu), involving an increasing partnership, has been very successful in providing overview and access to available bathymetric survey datasets and generating a harmonised digital bathymetry for Europe’s sea basins. Partners are hydrographic services, research institutes, authorities, and private organisations. Up till March 2018 more than 27.000 bathymetric survey datasets, managed by 41 data centres from 21 countries and originated from 250 institutes, have been gathered and made discoverable and accessible, covering all European seas. The current release of the EMODnet Digital Terrain Model (DTM) was published in October 2016, is based upon circa 7.700 survey data sets, and can be viewed and downloaded from the portal:

- water depth in gridded form on a DTM grid of $1/8 * 1/8$ arc minute of longitude and latitude (ca 230 * 230 meters)
- option to view depth parameters of individual DTM cells and references to source data
- option to download DTM in 16 tiles in different formats: ESRI ASCII, XYZ, EMODnet CSV, NetCDF (CF), GeoTiff and SD



The EMODnet Bathymetry portal and DTM is highly popular and used by an increasing group of users from government, science and industry as it clearly provides the best publicly available gridded harmonised digital bathymetry model for the European marine waters. The EMODnet DTM is used for a whole range of applications in marine science, management, and economic activities. For example, it provides a base geometry for hydrodynamic models, and supporting offshore energy projects.

Very good progress is being made with generating an improved and higher resolution EMODnet DTM, which will be released summer 2018 integrating much more recent data sets and refining areas with known anomalies. The following improvements and additional features are underway:

- expanding North to include the Arctic waters and Barents Sea in synergy with IBCAO
- expanding EMODnet DTM to include coastal areas
- increasing the overall resolution to $1/16 * 1/16$ arc minutes
- including hot spots with higher resolution
- including Satellite Derived Bathymetry in specific coastal zones
- determining and providing the best European coastline, also using European tidal model for vertical referencing

- Introducing 3D viewing in the browser.

The **EMODnet Bathymetry Workshop** will give overview and demonstrations of the current portal and interactive services for e.g. viewing and downloading the EMODnet DTM. The ongoing development for the improved DTM and additional portal functionalities will be highlighted. In addition there will be an open discussion on extra user requirements and possible extra data contributions.

Interested persons are kindly invited to participate and to register by completing the Doodle with name, affiliation and email address:

<https://doodle.com/poll/zs4d6hetyy4c8mie>