

Eighth GEBCO Science – presentation abstract

Institute of Marine Sciences - National Research Council (ISMAR-CNR), Venice, Italy, 8th October 2013

Oral presentation title: EMODNet Bathymetry : developing a harmonised digital bathymetry for the European seas

Authors: Dick M.A. Schaap¹, Eric Moussat² and Benoit Loubrieu²

1. MARIS B.V., Voorburg, the Netherlands

2. Institut Français de Recherche pour L'Exploitation de la Mer (Ifremer), Issy-les-Moulineaux, France

Abstract

The European Commission has concluded service contracts for creating pilot components of the European Marine Observation and Data Network (EMODnet). The overall objective is to create pilots to migrate fragmented and inaccessible marine data into interoperable, continuous and publicly available data streams for complete maritime basins. The EMODnet-Hydrography portal (<http://www.emodnet-hydrography.eu>) development started in June 2009 and since June 2011 provides a range of options for freely browsing and downloading harmonised Digital Terrain Models (DTM) for a large part of the European seas:

- the Greater North Sea, including the Kattegat and stretches of water such as Fair Isle, Cromarty, Forth, Forties, Dover, Wight, and Portland
- the English Channel and Celtic Seas
- Western Mediterranean, the Ionian Sea and the Central Mediterranean Sea
- Iberian Coast and Bay of Biscay (Atlantic Ocean)
- Adriatic Sea (Mediterranean)
- Aegean - Levantine Sea (Mediterranean).

Users have access to the following geographical information system layers:

- water depth in gridded form over whole of maritime basin on a grid of at least a quarter of a minute of longitude and latitude
- water depth in vector form with isobaths at a scale of at least one to one million
- depth profiles along tracklines
- coastlines
- underwater features - wrecks, seabed obstructions etc

The DTMs are freely available for downloading in a number of formats, including formats that are supported for 3D viewing software.

The EMODnet digital bathymetry with a grid size of 0,25 * 0,25 minutes has been produced from bathymetric survey data and aggregated bathymetry data sets collated from public and private organizations. These have been processed and quality controlled in a common way. An updating scheme is in place, including gathering additional survey data sets, resulting in regular new releases. The portal also provides a data discovery and access service to identify and request access to the hydrographic survey data that are managed by the involved data providers and that are at the basis of the digital bathymetry products.

The EU Commission recently awarded a new service contract for further development of the EMODNet Hydrography portal and its products. This aims at including also Baltic Sea, Norwegian Sea and Black Sea, improving the DTMs already produced and delivering these with a higher resolution (1/8 of minute of arc) and to expand the inventory of high resolution seabed mapping data sets held by public and private bodies. It is expected that the new service contract will start in June 2013.