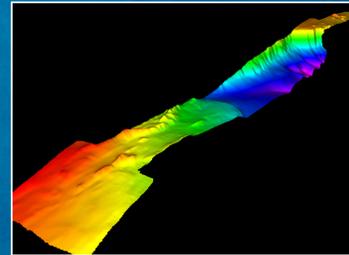
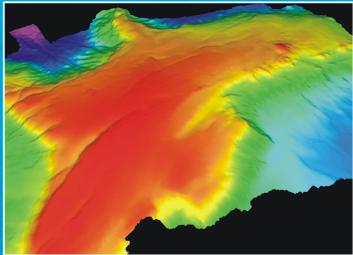




EMODnet

EMODNET -Hydrography

European Marine Observation
and Data Network



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 results will help to define processes, best technology and approximate costs of a final operational European Marine Observation and Data Network.

The EMODNET-Hydrography portal will provide hydrographic data products collated for a number of sea regions in Europe:

- 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.

Users will get access to the following geographical information system layers:

- water depth in gridded form over whole of maritime basin on a grid of a quarter a minute of longitude and latitude
- water depth in vector form with isobaths, derived from the grid
- coastlines
- underwater features - wrecks, seabed obstructions
- tracks / coverages of background survey data and additional metadata, including the originators and data holding centres of the surveys

The portal will have functionality to view these data products as layers, to download the data products in a number of file formats for further analysis and use, to define transects for retrieving the depth profiles along transects, and to provide the data products as OGC WMS services for use in other EMODNET portals and beyond.

Moreover the Hydrography portal will be dynamically linked to the SeaDataNet portal for users that want to request access to background survey data. These data sets are managed in a distributed way at various organisations and are described by metadata in the SeaDataNet Common Data Index (CDI) format, based upon ISO 19115. The SeaDataNet CDI service provides users a shopping mechanism to request access and if agreed by their managers, to download data sets from the distributed sources.

The portal development started in June 2009 and the first release of the portal and hydrographic data products will be available to users from June 2010 onwards. Thereafter the quality of the hydrographic data products and portal services will be refined by integrating additional survey data, that might become available from other originators, and by responding to user experiences with the portal. The overall pilot project has a 3 year duration.

Various organisations are engaged in the acquisition and provision of hydrographic data and data products. These comprise:

- Hydrographic Offices, that are responsible for surveying the navigation routes, fairways and harbour approach channels and producing from these the nautical charts on paper and as Electronic Nautical Charts (ENC), that are used for navigation.
- Authorities, responsible for management and maintenance of harbours, coastal defences, shipping channels and waterways. These authorities operate or contract regular bathymetric monitoring surveys to assure that an agreed nautical depth is maintained or to secure the state of the coastal defences.
- Research institutes, that collect multibeam surveys as part of their scientific cruises.
- Industry, especially the energy industry, that contracts multibeam surveys for pipeline and cable routes (in case of windfarms) and the telecommunication industry for phone and internet cable routes.

The EMODNET Hydrography partnership is actively seeking cooperation from these organisations for additional data sets (single and multibeam surveys, sounding tracks, composite products) to support a good geographical coverage and high quality of the hydrographic data products. The received hydrographic data sets are used for producing regional Digital Terrain Models (DTM) with specific resolution (0.25 minute * 0.25 minute) for each geographical region. The data sets themselves are not distributed but described in the CDI metadata, giving clear information about the background survey data used for the DTM, their access restrictions, originators and distributors and facilitating requests by users to originators. This way the portal provides originators of hydrographic data sets an attractive shop window for promoting their data sets to potential users, without losing control.

Partners



Further information is available at: www.emodnet-hydrography.eu

