SeaDataNet II - EMODNet - building a pan-European infrastructure for marine and ocean data management

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The second phase of the project SeaDataNet is well underway since October 2011 and is making good progress. The main objective is to improve operations and to progress towards an efficient data management infrastructure able to handle the diversity and large volume of data collected via research cruises and monitoring activities in European marine waters and global oceans. The SeaDataNet infrastructure comprises a network of interconnected data centres and a central SeaDataNet portal. The portal provides users a unified and transparent overview of the metadata and controlled access to the large collections of data sets, managed by the interconnected data centres, and the various SeaDataNet standards and tools,.

Recently the 1st Innovation Cycle has been completed, including upgrading of the CDI Data Discovery and Access service to ISO 19139 and making it fully INSPIRE compliant. The extensive SeaDataNet Vocabularies have been upgraded too and implemented for all SeaDataNet European metadata directories. SeaDataNet is setting and governing marine data standards, and exploring and establishing interoperability solutions to connect to other e-infrastructures on the basis of standards of ISO (19115, 19139), OGC (WMS, WFS, CS-W and SWE), and OpenSearch. The population of directories has also increased considerably in cooperation and involvement in associated EU projects and initiatives. SeaDataNet now gives overview and access to more than 1.4 million data sets for physical oceanography, chemistry, geology, geophysics, bathymetry and biology from more than 90 connected data centres from 30 countries riparian to European seas.

Access to marine data is also a key issue for the implementation of the EU Marine Strategy Framework Directive (MSFD). The EU communication 'Marine Knowledge 2020' underpins the importance of data availability and harmonising access to marine data from different sources. SeaDataNet qualified itself for leading the data management component of the EMODNet (European Marine Observation and Data Network) that is promoted in the EU Communication. In the past 4 years EMODNet portals have been initiated for marine data themes: digital bathymetry, chemistry, physical oceanography, geology, biology, and seabed habitat mapping. These portals are now being expanded to all European seas in successor projects, which started mid 2013 from EU DG MARE. EMODNet encourages more data providers to come forward for data sharing and participating in the process of making complete overviews and homogeneous data products.

The EMODNet Bathymetry project is very illustrative for the synergy with SeaDataNet and added value of generating public data products. The project develops and publishes Digital Terrain Models (DTM) for the European seas. These are produced from survey and aggregated data sets. The portal provides a versatile DTM viewing service with many relevant map layers and functions for retrieving. A further refinement is taking place in the new phase.

The presentation will give information on present services of the SeaDataNet infrastructure and services, highlight key achievements in SeaDataNet II so far, and give further insights in the EMODNet Bathymetry progress.