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MyOcean Central Information System - Achievements and Perspectives

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Since 2009, MyOcean (http://www.myocean.eu) is providing an operational service, for forecasts, analysis and expertise on ocean currents, temperature, salinity, sea level, primary ecosystems and ice coverage.

The production of observation and forecasting data is done by **42 Production Units** (PU). Product download and visualisation are hosted by **25 Dissemination Units** (DU). All these products and associated services are gathered in a **single catalogue** hiding the intricate distributed organization of PUs and DUs.

Besides applying INSPIRE directive and OGC recommendations, MyOcean overcomes technical choices and challenges. This presentation focuses on 3 specific issues met by MyOcean and relevant for many Spatial Data Infrastructures: user's transaction accounting, large volume download and stream line the catalogue maintenance.

1. **Transaction Accounting**: Set up powerful means to get detailed knowledge of system usage in order to subsequently improve the products (ocean observations, analysis and forecast dataset) and services (view, download) offer. This subject drives the following ones:
   (a) Central authentication management for the distributed web services implementations: add-on to THREDDS Data Server for WMS and NETCDF sub-setting service, specific FTP.
   (b) Share user management with co-funding projects. In addition to MyOcean, alternate projects also need consolidated information about the use of the cofunded products.
   (c) Provide a central facility for the user management. This central facility provides users' rights to geographically distributed services and gathers transaction accounting history from these distributed services.
2. Propose a user-**friendly web interface to download large volume** of data (several GigaBytes) as robust as basic FTP but intuitive and file/directory independent. This should rely on a web service drafting the INSPIRE to-be specification and OGC recommendations for download taking into account that FTP server is not enough friendly (need to know filenames, directories) and Web-page not allowing downloading several files.
3. Streamline the maintenance of the central catalogue. The major update for MyOcean v3 (April 2013) is the usage of Geonetwork for catalogue management. This improves the system at different levels :
   (a) The editing interface is more user-friendly and the catalogue updates are managed in a workflow. This workflow allows higher flexibility for minor updates without giving up the high level qualification requirements for the catalogue content.
   (b) The distributed web services (download, view) are automatically harvested from the THREDDS Data Server. Thus the manual editing on the catalogue is reduced, the associated typos are avoided and the quality of information is finally improved.