



# ECOOP Data Management System for in situ observation data



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## ECOOP Integrated Project

The overall goal of ECOOP (European Coastal-shelf sea Operational observing and Forecasting system) is to consolidate, integrate and further develop existing European coastal and regional seas operational observing and forecasting systems into an integrated pan-European system. ECOOP integrates observation and modelling products into a pan-European marine information system of systems (EuroMISS), and also designs a European decision support system (EuroDESS) framework for coastal and regional seas. Within ECOOP, the Data Management System provides a single interface to the EuroMISS for observational data.

## ECOOP Data Management System

The ECOOP Data Management System (DMS) is designed to ensure proper and maximum real-time and near real-time delivery of pan-European observational data including sea temperature, salinity, wave, currents, sea level and river run-off data among EuroGOOS regional data centres. The DMS intends to be a high level service for the exchange of observational data, avoiding the diversity of in-house data management systems and internal processing chains.

## ECOOP Data Management System Architecture

### DMS Architecture Framework using INSPIRE service terminology

- Data discovery services
- Data download services
- Data view services

### Discovery Services

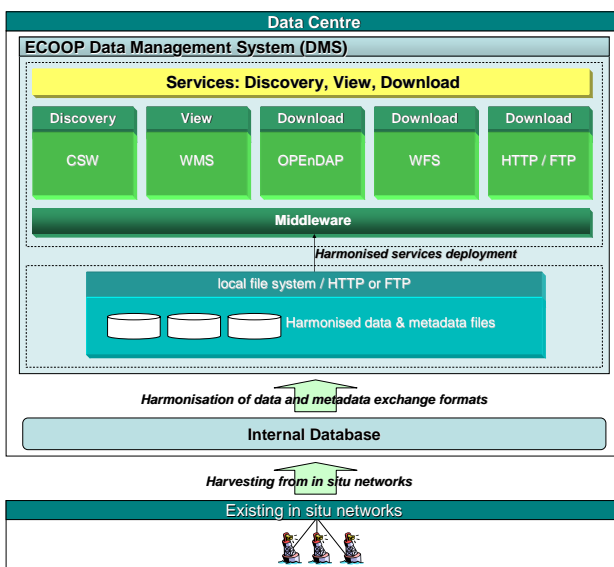
- CSW (Catalog Services for the Web)

### Download Services

- FTP / HTTP
- OPeNDAP Dapper
- WFS (Web Feature Service)

### View Services

- WMS (Web Map Service)



### In situ data formats

using DATAMEQ-WG\* recommendations

- ODV (ASCII)
- MEDATLAS (ASCII)
- OceanSites (NetCDF)

\* EUROGOOS DATA Management, Exchange and Quality Working Group

### Metadata formats

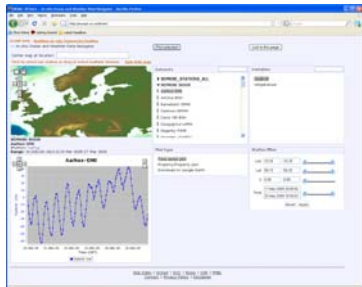
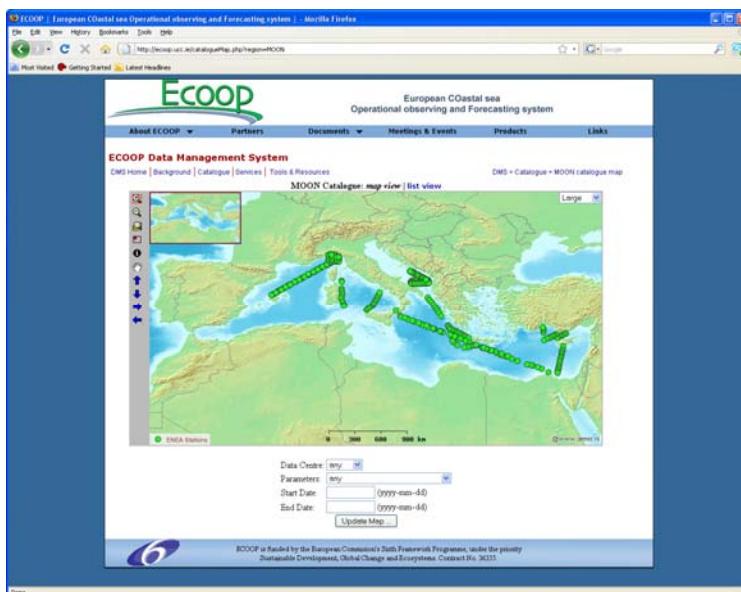
Level 1: Product catalogue

- achieves product & service description
- uses ISO 19115 standard
- specified by ECOOP EuroMISS

Level 2: In situ data catalogue

- achieves common index of data files
- uses Common Data Index (CDI)
- CDI: uses ISO 19115 standard
- CDI: specified by SeaDataNet project
- CDI: adopted by ECOOP DMS to handle real-time data

## ECOOP Data Management System Portal



DCHART visualisation, from DAPPER (OPeNDAP) download service



Access to data files, from CDI catalogue

Integrated catalogue for pan-European data searching using CDI metadata

<http://ecoop.ucc.ie>



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ECOOP project website: <http://www.ecoop.eu>

