



HR Wallingford
Working with water



Oceans Apart?

Operational Oceanography and INSPIRE

Lessons and Feedback from the European
ECOOP and MyOcean Initiatives

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ECOOP

- European Coastal Operational Oceanography Platform (April 2010)
- Harmonisation of regional and thematic services for operational oceanography
- Research project

MyOcean

- Follows on from ECOOP (commenced April 2009)
- Flagship EC project for oceanography.
- Delivered under the GMES / GEOSS umbrella
- Moving from research to operational services

Credits

- Sylvie Pouliquen, Thomas Loubrieu (Ifremer, FR)
- Jon Blower, Alastair Gemmel (University of Reading, UK)
- J. Dorandeu (CLS, FR)
- Quillon Harphen (HR Wallingford, UK)
- Martin Price (UK Met Office)

Data Product and Services Spectrum

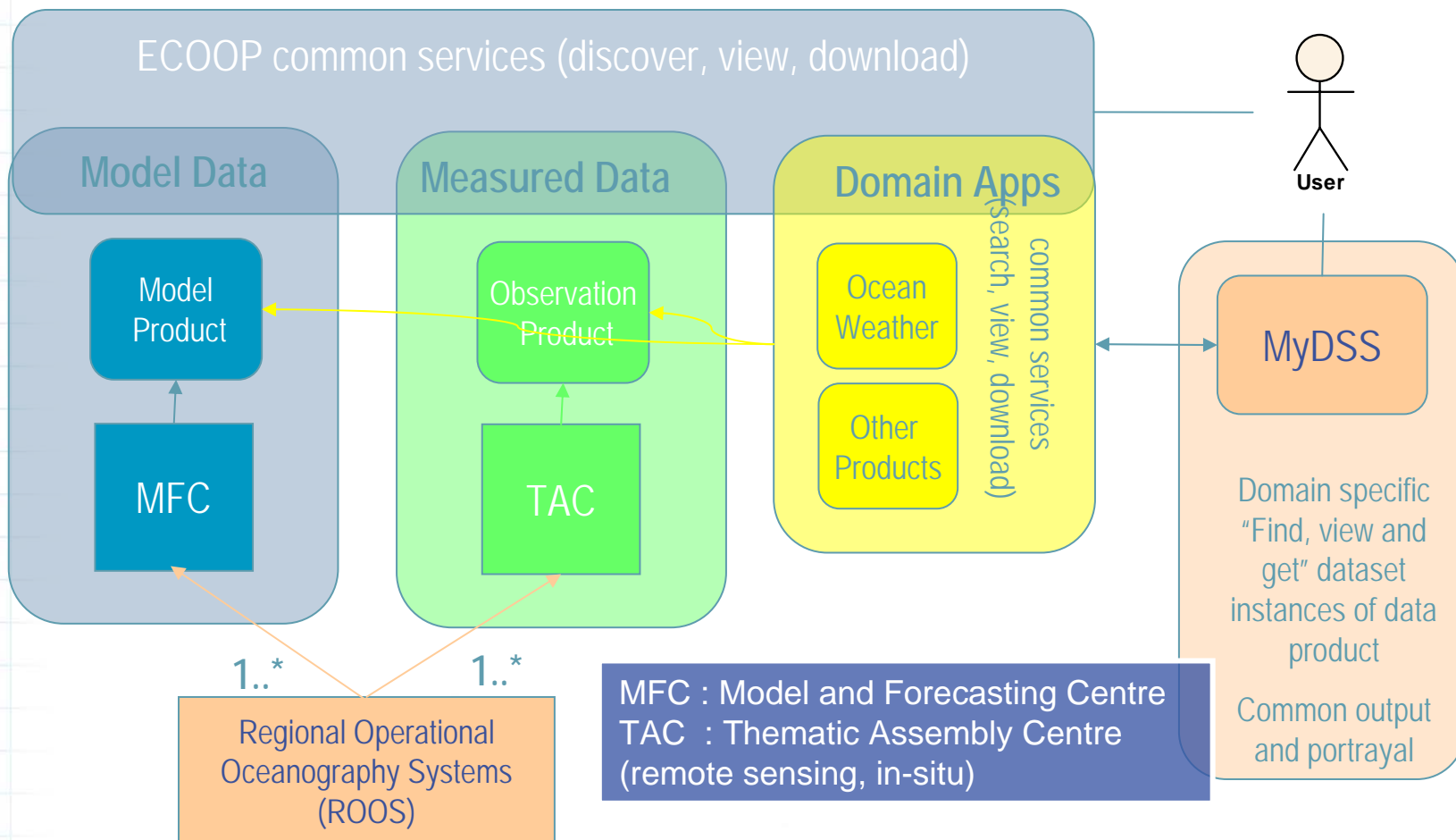
- Deploying a consistent suite of services for view and download of data, independent of data representation (point, grid, swath, mesh etc.)

Legacy and Future Requirements

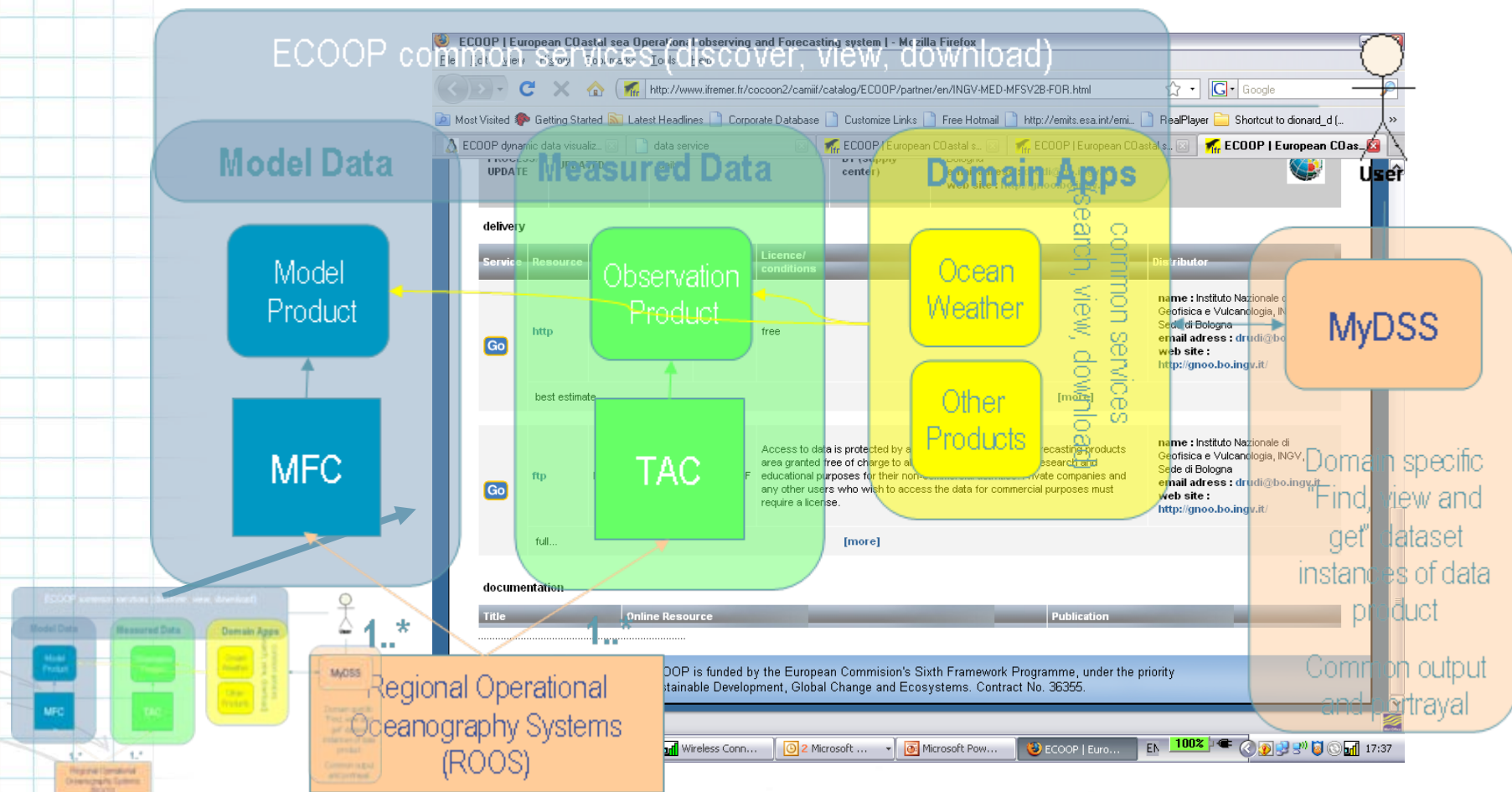
- Building on pre-existing services without limiting future development. OPeNDAP / NETCDF starting point, but the future is increasingly OGC-focussed

Features and Coverages

- Packaging the coverage (ISO19126) along with semantic models of the observation process to support discovery and use. Opportunities for ISO19156



Presently, a particular MFC or TAC data product is closely coupled to particular technologies for view and download. Products also described in inconsistent ways

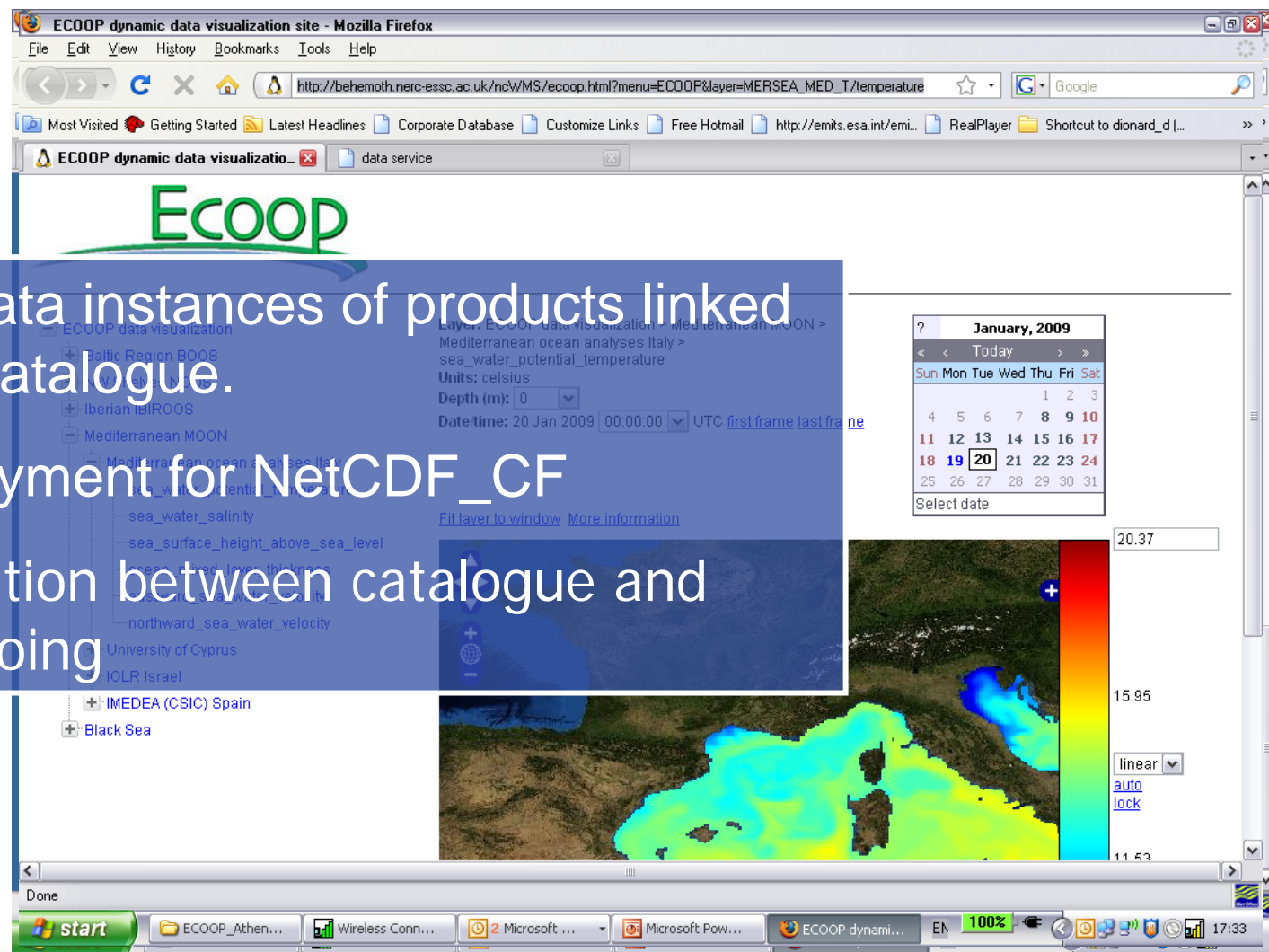


Ocean community have long adopted ISO19115 for discovery metadata. They have a profile called 'Common Data Index'

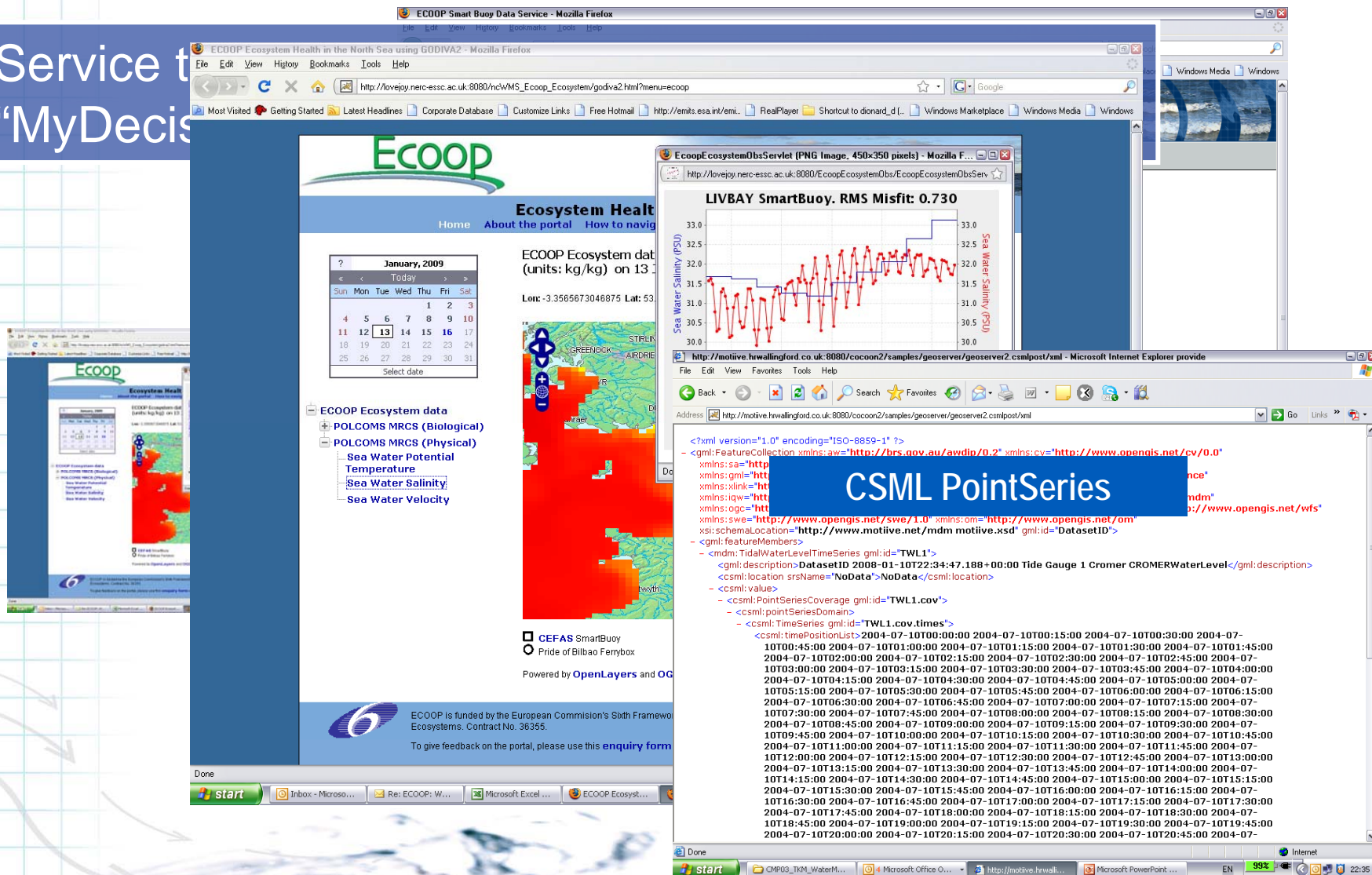
Viewer of data instances of products linked to product catalogue.

WMS deployment for NetCDF_CF

Synchronisation between catalogue and viewer on going



Service to
"MyDecis



- OGC Interfaces for INSPIRE compliance
 - WMS implementation for 'view' and a CSW for 'discover'.
 - For the OGC download protocols still following the ECOOP conclusions as the myOcean deadlines are very short for development
- No convenient software yet for doing OGC-compliant download.
- Plan for the future is use OGC/WCS for grids download if we can adapt the protocol for irregular grids and enable asynchronous download with it .

For in-situ (pointSeries) data

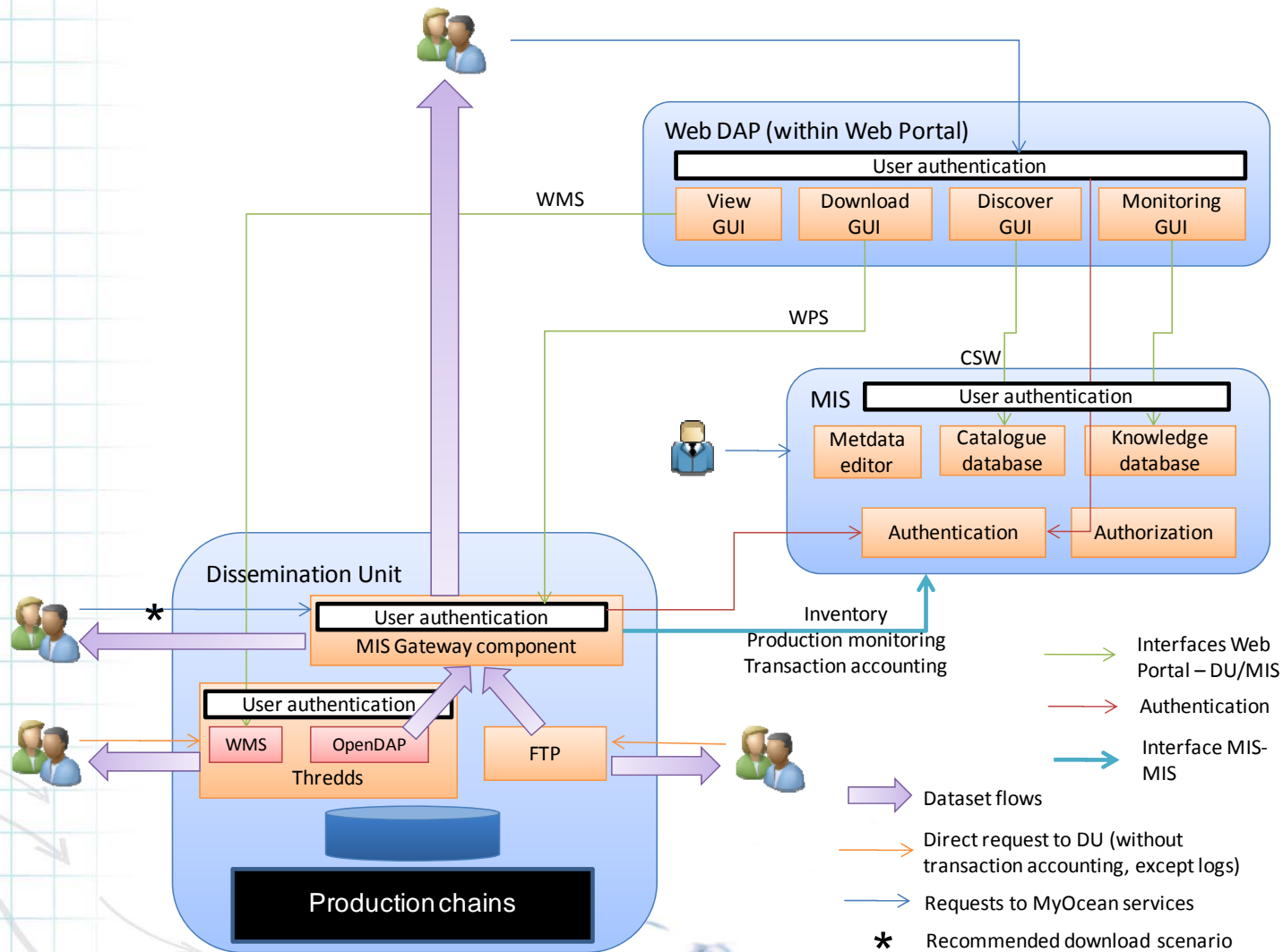
- Download will be done with the Oceanotron software IFREMER are developing for myOcean in-situ production units. At a first stage the server will provide OPeNDAP/DAPPER interface + an OPeNDAP to NetCDF_Oceansites data format converter
- THREDDS Data Server is not convenient for provide access to non gridded datasets). This Oceanotron software will provide a WMS service as well.
- OGC/WFS may be used in the future (after myOcean).

For along track or satellite swath datasets (pointSeries along a trajectory)

- The issue is still open but there will be no need for download interoperability within the project because they are all handled by the same production unit.

Only WMS and CSW used; some use of WPS and possible plans for WCS.

MyOcean Architecture

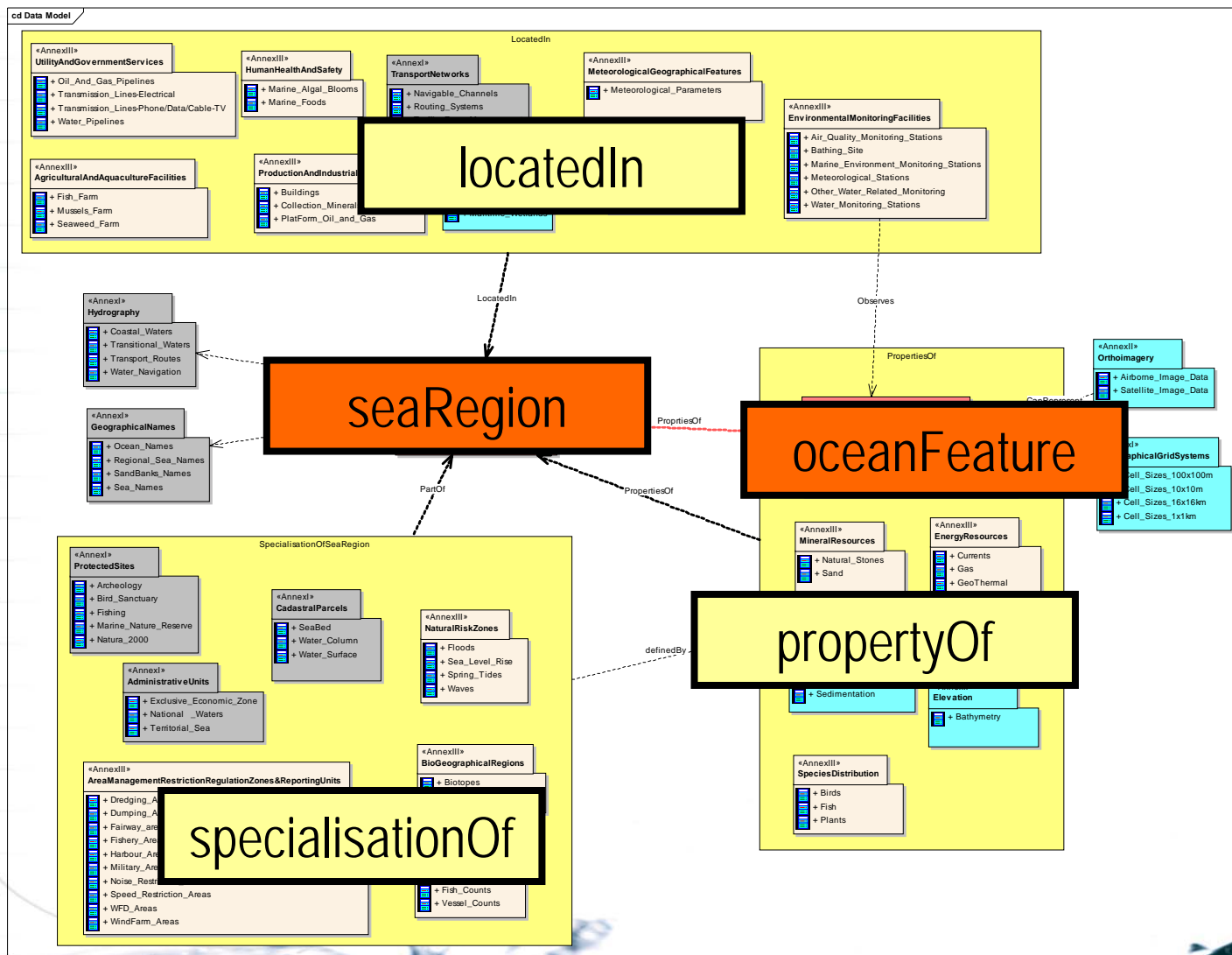


SR - Sea Regions

- Seas and saline water bodies divided into regions and sub-regions with common characteristics.

OF- Ocean Geographic Features

- Physical conditions of oceans (currents, salinity, wave heights, etc.).
- Represented as lines, grids or points and includes measurement locations (INSPIRE Scoping, 2004)



Oceanographic Community and Data Products

- Discrete products, harmonised according to sampling feature and observation method.

Oceanographic Community and Metadata

- Mature adopters of ISO19115/19 and implementation according to ISO 191139

Oceanographic Community & Network Services

- Consistent use of discovery services based on CSW
- Harmonised view services for gridded data products based on WMS



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Theme3 - Overview of Progress EuroMISS (WP8), EuroDESS (WP9) and Hindcasting (WP10)

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