

Level of integration – distribution of the roles

Planned or existing organization for one single ocean observation and forecast system?	
<p>Space : ongoing between EumetSAT/ESA</p> <p>in situ : regional responsibilities, inter-state structures (EuroArgo,...)</p> <p style="text-align: center;">▼</p> <p>data assembly and modelling : Mersea => myOcean</p> <p style="text-align: center;">▼</p> <p>Downstream services : marcoast2,...</p>	<p>Space : Overlap for 3rd party missions (eg MODIS)</p>
Clear distribution/complementarity of tasks? Level of redundancy and sharing?	
<p>Achieved through European project and shared answer to a single call</p> <p><i>Does not mean that diversity and others national initiatives don't co-exist</i></p>	

WP3 : Level of data integration

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Level of integration – distribution of the roles

Common/shared facilities on downstream services rely on? Well identified production units (producing/assembling information)?	
Modelling centers organized by regional expertise (Global, Mediterranean, Baltic, Arctic,...)	regional approach but no common services ?
Thematic assembly centers organized by parameter (SST, Altimetry,...)	
Any central assembling centers collecting and aggregating data from distributed local/regional centers and providing a single access point?	
Achieved through Thematic Assembly Centers, per parameter (SST, Ocean Color, In situ,...) which organize centralization/ homogenisation of data and services among the different partners => prepare and assess data for forecasting systems	Some systems under construction (NMDIS)

Data policy

Are there categories of users and related data policies clearly defined?

Open and **free** access to all catalog data in myocean, user registration

Two categories of users :

- **Standard** : access to catalog data
- **Advanced** : access to products on demand and internal data

Project => restricted to project members

Institution => usually restricted to institution (free), registration/fee/ agreement otherwise

Agency => usually available free or cost

National => different levels of confidentiality

Standards to support integration and interoperability

Any shared format for ocean products?	
<p>netCDF, following specification req. From GHRSSST, Argo, OceanSites, GlobColour, Godae</p> <p><i>Grib, BUFR, Earthnet (ESA, ECMWF, EumetSAT) => moving to netCDF</i></p>	Does not seem to be a agreed standard
Any requirements for metadata (esp. In situ,...)? Shared standards?	
<p>European directive (Inspire) : regulation on metadata, data and service sharing,...</p> <ul style="list-style-type: none"> • Implementation through dedicated project for MyOcean SeaDatnet (=>MyOcean,...) 	Managed at agency level (MOST) => what standards/conventions ?
Requirements for exchange protocol? How many data centers implement it?	
<ul style="list-style-type: none"> •Ftp •Opendap •(WMS, WCS/SOS services) <p>⇒login/password required</p> <p>⇒All MyOcean TACs & MFCs, being extended to Space agencies, in situ,...</p>	Does not seem to be an agreed standard

Services and user access

Is there any central service for data access and product catalogue?

MyOcean for L3 / L4 product, model
None for satellite L2 data (ESA Mercator, EUMETSAT SAF, Aviso) => implementation of assembly centers

Any central data extraction/visualization service?

Data viewing interface and subsetting/ Tools exist but at project level mostly extraction tool for all MyOcean gridded products
No unified access to spaceborne L2

Any centralized/distributed help desk?

Single access point (UKMet), with cascading to expert/local help desks
Tracking of issues (ticketing) being implemented, with monitoring of resolution

Services and user access

Tools or services to intercompare the products? To provide consistent quality information?

Not much yet

Standardized procedures for data quality control (RT) and validation (delayed mode) being discussed and implemented : shared indicator, reference datasets for comparison (e.g. climatology, AATSR,...)

Any independant assessment of overall system and sub-system performances (availability, timeliness)? Quality of service?

Level of service between subsystems (where dependancies) defined by **service level agreements**

Shared tools being implemented for control and assessment of production (availability and timeliness) => indicators, red/green flags

Integration at international level

Integration into international frameworks and level of commitment : are any data provided? Are they available in global archiving centers?	
<p>Model forecast => GODAE SST => GHRSSST (MyOcean, EumetSAT, ESA => compl. to format & content, unrestricted delivery of data to GDAC) In situ => ARGO, Ocean sites => compl. to format & content, unrestricted delivery of data to GDAC) <i>Ocean Color => ? (GlobColour)</i> <i>Sea-Ice & Winds => ?</i> <i>Altimetry => ?</i></p>	<p>ARGO</p>
Compliance to international standards for data and metadata? Involvement in related working groups?	
<p>CF convention (involvement in standard names) ISO 19115/19139 (GHRSSST, SeaDataNet, Europe/USA)</p>	