



3rd MarinERA Infrastructure Workshop



Ile des Embiez 12-13/02/08

Session 2 – *How to sustain coordinated Coastal Observatory Networks ?*

3.1 GMES

By P.Y. Le Traon

(inputs from GMES bureau and MyOcean)



GMES, GMES MCS and MyOcean

Marine Core Service

GMES : Global Monitoring for Environment and Security

- **Core Service** = European Public Service
- To support and develop **Downstream** activities
- Definition and setting up : FP7

- 3 « **Fast Tracks Services** » :
 - **Emergency** Response Core service : SAFER (Infoterra Fr.)
 - **Land** Monitoring Core Service : Geoland-2 (Infoterra GmbH – Medias)
 - **Marine** Core Service : MyOcean (Mercator-Ocean)

- 2 « **Pilot Services** » :
 - **Security** : G-Mosaic (Telespazio)
 - **Atmosphere** : MACC (ECMWF)

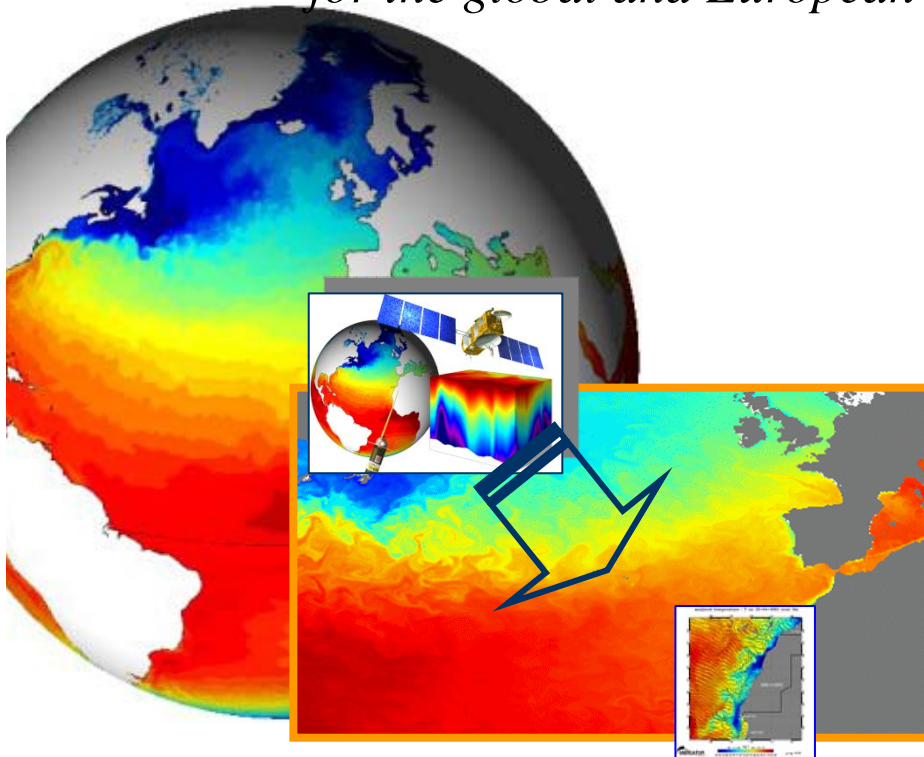
- + « **Climate** »



MyOcean and the GMES MCS

Marine Core Service

- **MyOcean** will
 - “*deliver regular and systematic reference information (processed data, elaborated products) on the state of the oceans and regional seas:*
 - *at the resolution required by intermediate users & downstream service providers, of known quality and accuracy,*
 - *for the global and European regional seas.*”



- Physical state of the ocean, and primary ecosystem
- For global ocean, and main European basins and seas
- Large and basin scale ; mesoscale physics
- Hindcast, Nowcast, Forecast
- Data, Assimilation and Models



Market Segmentation

Marine Core Service

- **MyOcean** will “provide the common denominator data for *all users in the marine sector, in other words the information for existing & new downstream services.*”

Area 1

« MARINE SAFETY »

(marine operations, oil spill combat, ship routing, defense, search & rescue, ...)

Area 3

« MARINE AND COASTAL ENVIRONMENT »

(water quality, pollution, coastal activities, ...)

Area 2

« MARINE RESSOURCES »

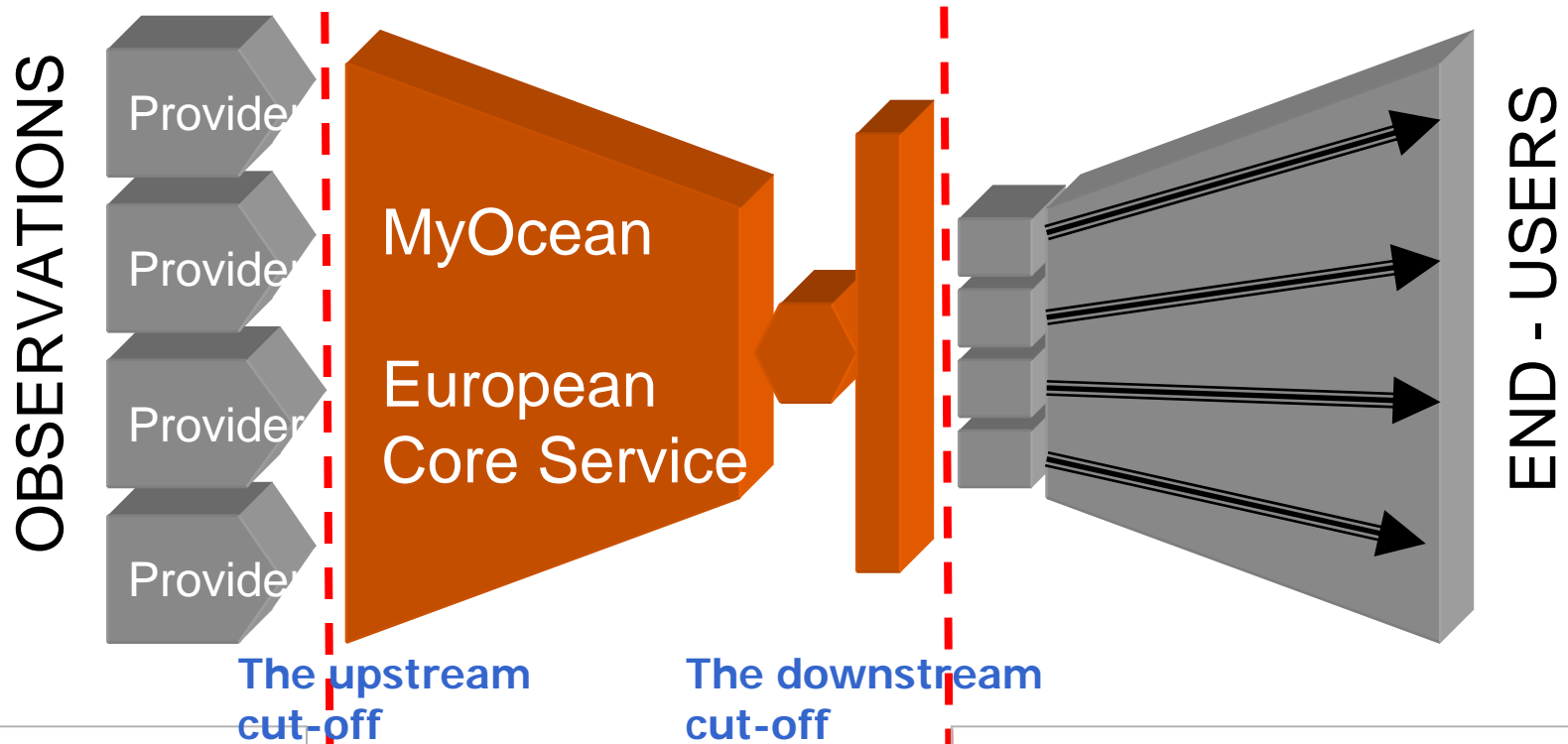
(fish stock management, ICES, FAO, ...)

Area 4

« CLIMATE & SEASONAL FORECASTING »

(climate monitoring, ice, seasonal forecasting, ..)

Scope of responsibility



upstream to our service

... is done (duty) by an **observation** agency or center (raw data)
 Example : **Eumetsat SAF** or the **ESA PAC**

The upstream cut-off

Data, Model
European added-value

The downstream cut-off

downstream to our service:

... is done (duty), or will be better done (skill) by a **specialized** agency, a **European** agency or a **national** center ; usually already in place
 Example : **COASTAL SYSTEMS**



In-situ observing system Priorities for GMES MCS (MCS implementation Group report)

- The Argo network should be sustained, which means that about 800 new floats have to be deployed each year to replace those that have ceased to collect data. This represent about 250 to be deployed at European level (includes improved coverage in European seas) (Euro Argo).
 - Acquiring data from Research vessels, Ships of opportunity and Commercial vessels like ferries should be encouraged and sustained especially to sample the European regional seas. There is a low incremental cost for sending the data in realtime to shore.
 - A selection of mooring observatories should be maintained in selected tie-point areas where models need data for assimilation and validation purposes.
 - A network of Sea Level stations must be maintained throughout European waters and the adjacent seas.
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Communication 2008:



COMMUNICATION FROM THE COMMISSION TO THE
EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN
ECONOMIC AND SOCIAL COMMITTEE AND THE
COMMITTEE OF THE REGIONS

«GMES, we care for a safer planet»

- An architecture that puts users at the forefront
- Public investment with impact on growth and jobs
- A European initiative open to international cooperation
- Lays out a Financing approach
- Lays out a Governance approach



GMES and in-situ infrastructure

“The in-situ infrastructure is developed and maintained by Member States and should remain their responsibility.

However, following the approach taken for space infrastructure and subject to decisions on the size and scope of future EU budgets, the Community Programme should contribute, where appropriate, to support the development of in-situ infrastructure, notably by encouraging both pan-European and globally co-ordinated data collection and exchange. The Community Programme should also contribute to co-ordination activities that are necessary to ensure the availability of in situ data for the GMES services. Where appropriate, it should also put in place accompanying measures linked to, for instance, the support of cross-border activities and global networks.”



GMES Governance Technical Implementation



Space

- ESA is the coordinator, development and procurement agent for and on behalf of the EU
- Operations by ESA (ad interim) and EUMETSAT

In situ

- EEA supports the EC for the coordination of access to in situ data and products for services

Services

- Various schemes for service provision
 - User interface through EU agencies and bodies
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GMES – long term issues



- In 2009, the Commission will make a legislative proposal for GMES.
- The GMES financing needs will be subject to an analysis led by the EU.
 - For the period 2011–2013, the constraints of the existing EU budget will be taken into account.
 - Decisions on funding and organisational arrangements after 2013 will have to be determined as part of the next multiannual financial framework of the EU.