Kick-Off Meeting – Athens – 19-20/10/2011

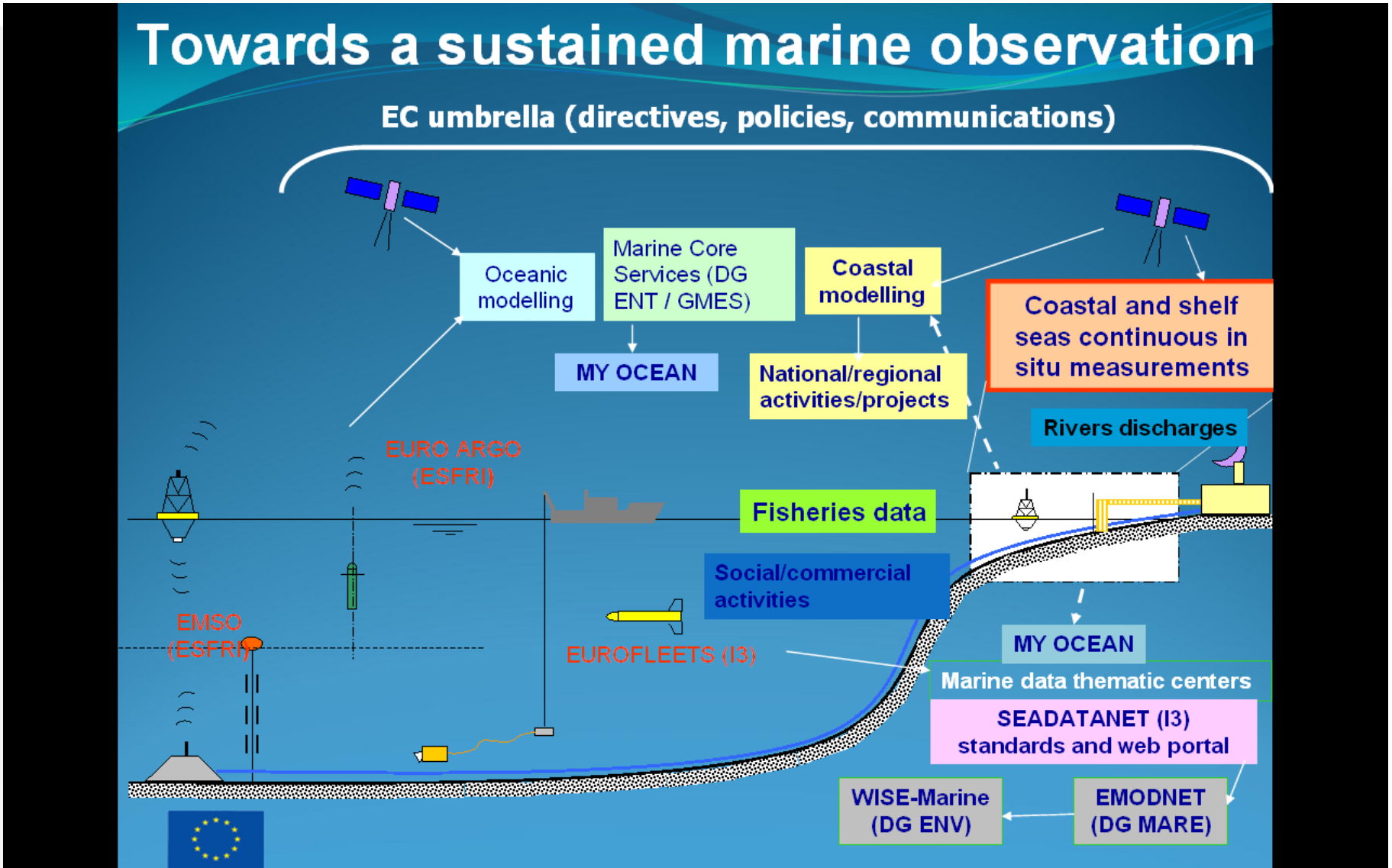
SeaDataNet

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

Cooperation with other projects

Prerequisites and legal structure

Towards a sustained marine observation



Marine Research "Infrastructures"

(focus on in-situ observation and data)

Observation

- **EuroFleet** : Harmonization of European Research Fleet
- **EuroArgo** : European Contribution to the Argo programme
- **EuroSites** : Deep Sea Observatories, Contribution to OceanSites
- **EMSO** : Sea floor observatories
- **Jerico** : Coastal observatories
- [FerryBox]

Data management

Data processing

- **SeaDataNet** : Marine Data Management , Network of NODC's
- **Geo-Seas** : Marine geophysical and geological data,
- **Black-Sea Scene** : Black Sea Area

Support of decision making

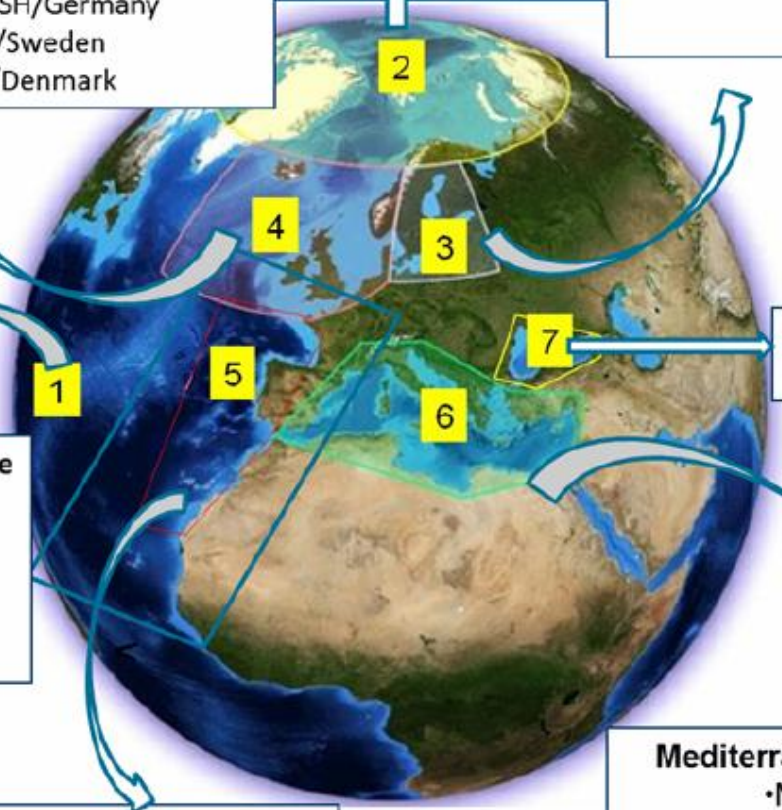
- **MyOcean** : GMES – Marine Core Services,
  operational oceanography,
  hydrodynamic models : hindcast, nowcast, forecast
- **EMODNET** : Integrated access to products

My Ocean in-situ TAC role

Marine Core Service

- Limited number of parameters:
  - Physical: T&S, current, sea level
  - Biogeochemical: Chlorophyll/Fluorescence, Oxygen, Nutrients
- Integrate in-situ data in product accessible through global and regional portals
  - Common format
  - Common NRT QC
  - Common Quality flags
  - Common distribution tools
  - Single access point
- Ensure a minimum level of quality on the data delivered
  - In Near real time (24h to a week)
  - In delayed mode
- Assessment of the products at basin scale

myOcean



Arctic: IMR / Norway
All parameters

Baltic Sea: SMHI/Sweden
- Temp & Salinity : BSH/Germany
- Current: SMHI/Sweden
- Sea Level: DMI/Denmark
- Bio : FMI-Syke/Finland

North West Shelves: BSH/Germany
- Temp & Salinity : BSH/Germany
- Current: SMHI/Sweden
- Sea Level: DMI/Denmark

Black Sea IOBAS/Bulgaria
All parameters

Global Ocean : Coriolis/France
- Link with international network s: Coriolis/France
- Argo: Coriolis,BODC,BSH
- European Vessels: NIVA/Norway

South West Shelves: Puertos Del Estado/Spain
- Mooring : PdE
- Underway data: Coriolis/France

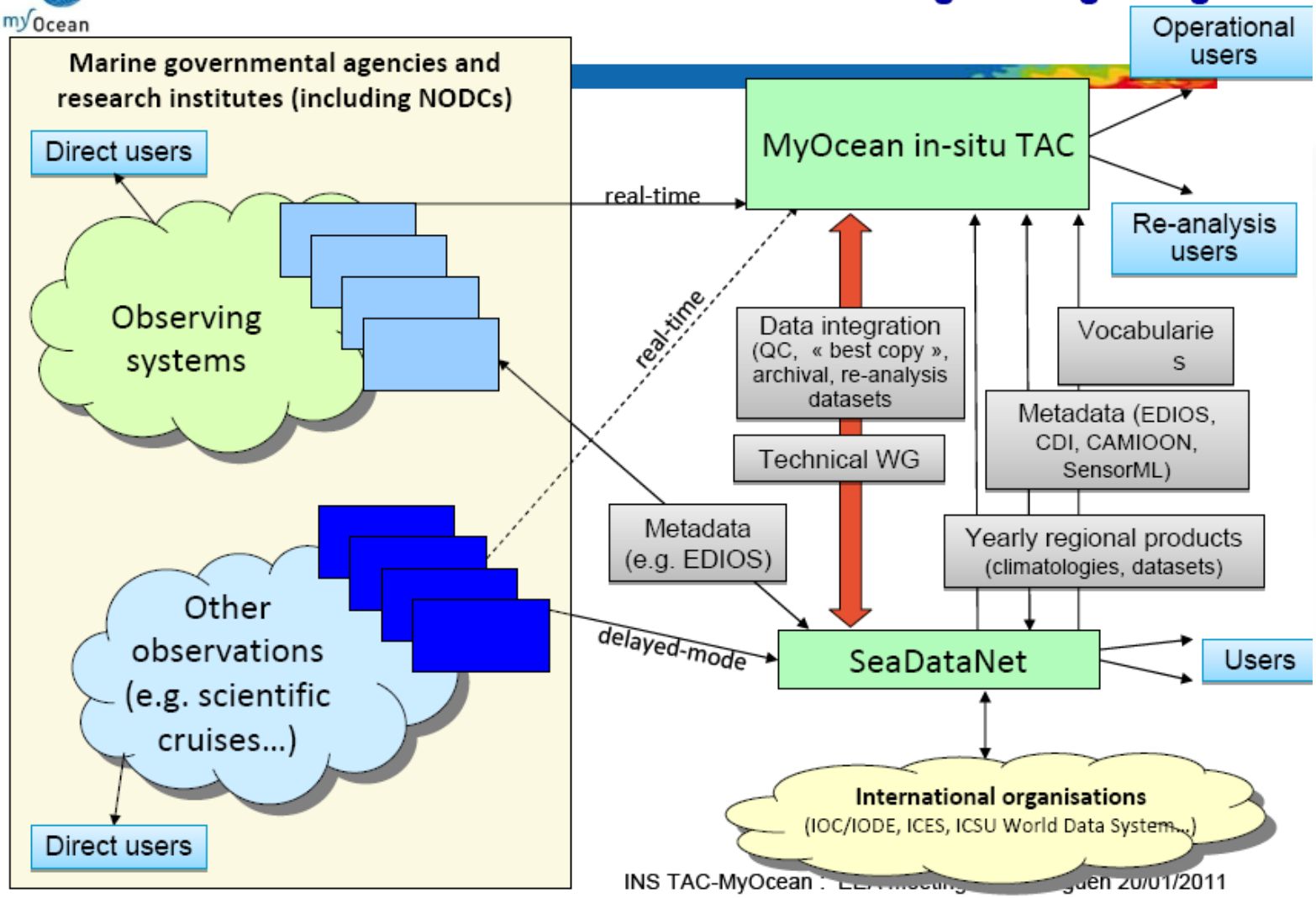
Mediterranean Sea : HCMR/Greece
- Mooring : HCMR/Greece
- XBT/CTD: ENEA/Italy
- Drifter & Argo: OGS/Italy
- Glider and Argo: Coriolis/France

The INS TAC relies on close collaboration with:

Marine Core Service

- Eurogoos: who operates the observing Networks and Uses the INS-TAC products for its national activities
- JCOMM who coordinates the international observing networks
- SeaDataNet who consolidates the NODC network and provides delayed mode products

Cooperation between MyOcean in-situ TAC and SeaDataNet
MoU signed Beginning 2010



MoU between MyOcean and SeaDataNet

- Signed in 2011
- Entered in practice with EMODNET – Physical Parameters
- Will be upgraded in order to :
  - Take in account feedback from on going cooperation such as
    - DG-Mare initiatives (EMODNET)
    - DG-Research projects such as JERICO
  - Generalize it to MyOcean
    (the previous MoU was focused on in-situ Tac), e.g.
    - SeaDataNet is also interested by MyOcean products (implementation of new quality checks…)

EUROFLEETS

TOWARDS AN ALLIANCE OF EUROPEAN FLEETS

➢EUROFLEETS project (FP7 call)

- Kick off meeting in September 2009
- General objective : optimisation of the utilisation of the European fleet (ships and equipment)

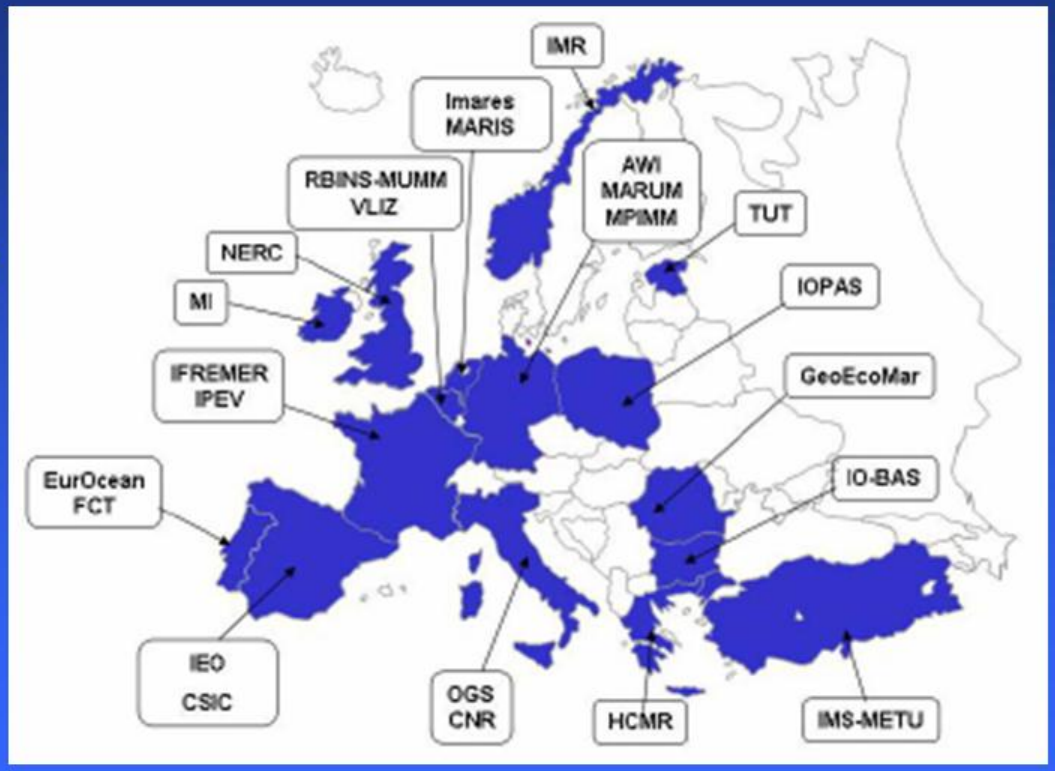
➢3 AXIS

- NA (Networking activities) : strategic vision for research fleets and heavy equipment, interoperability, sharing of knowledge ,..
- TNA (Transnational access) : access to cruises (ships and vehicles)
- JRA (Technological development) : softwares for data management, payloads for vehicles

EUROFLEETS

TOWARDS AN ALLIANCE OF EUROPEAN FLEETS

24 marine institutes, universities, foundations from 16 European countries



Cooperation with EuroFleets

Scientific Digital Log Book (Ears)

Cruise Summary Report (with vessel route)

Event Log

Data files or RT data flow

Data Centres

Common Data Index

Data Acquisition

Description of instruments (SensorML)

EuroFleets (at sea) **SeaDataNet (on land)**

EuroFleet and SeaDataNet 2

- An opportunity for SeaDataNet to collect directly "high quality metadata and data" directly from vessels

"Quality of information is better when entered by the person in charge with a minimum delay after the observation"

- Some standards (CSR, "Event log") will have to be upgraded or developped in common
- EuroFleets + SeaDataNet/Geo-Seas is very comparable to R2R project in US.

➔ Interoperability must be an objective

(Funding instruments exist)

JERICO main focus

1- To set up a European Research Infrastructure for coastal observation as needed in research and Operational Oceanography activities

2- To define the criteria for a Label JERICO (set of parameters, frequency, sampling scheme, data quality, data delivery…)

3- To sustain networks which are in compliance with Label criteria to secure long term series of data.

4- To provide opportunities to access to plate-forms for testing/demonstrating experiments and data for assimilation experiments

5- Better use of R/V, fishing boats & ships of opportunity

6- Develop a partnership strategy to operate the pool of Gliders in Europe (technical expertise for both vehicle and sensors, operational strategy).

JERICO criteria to be fulfilled by the measuring stations

1 - Automatic and continuous measurements on annual or seasonnal basis

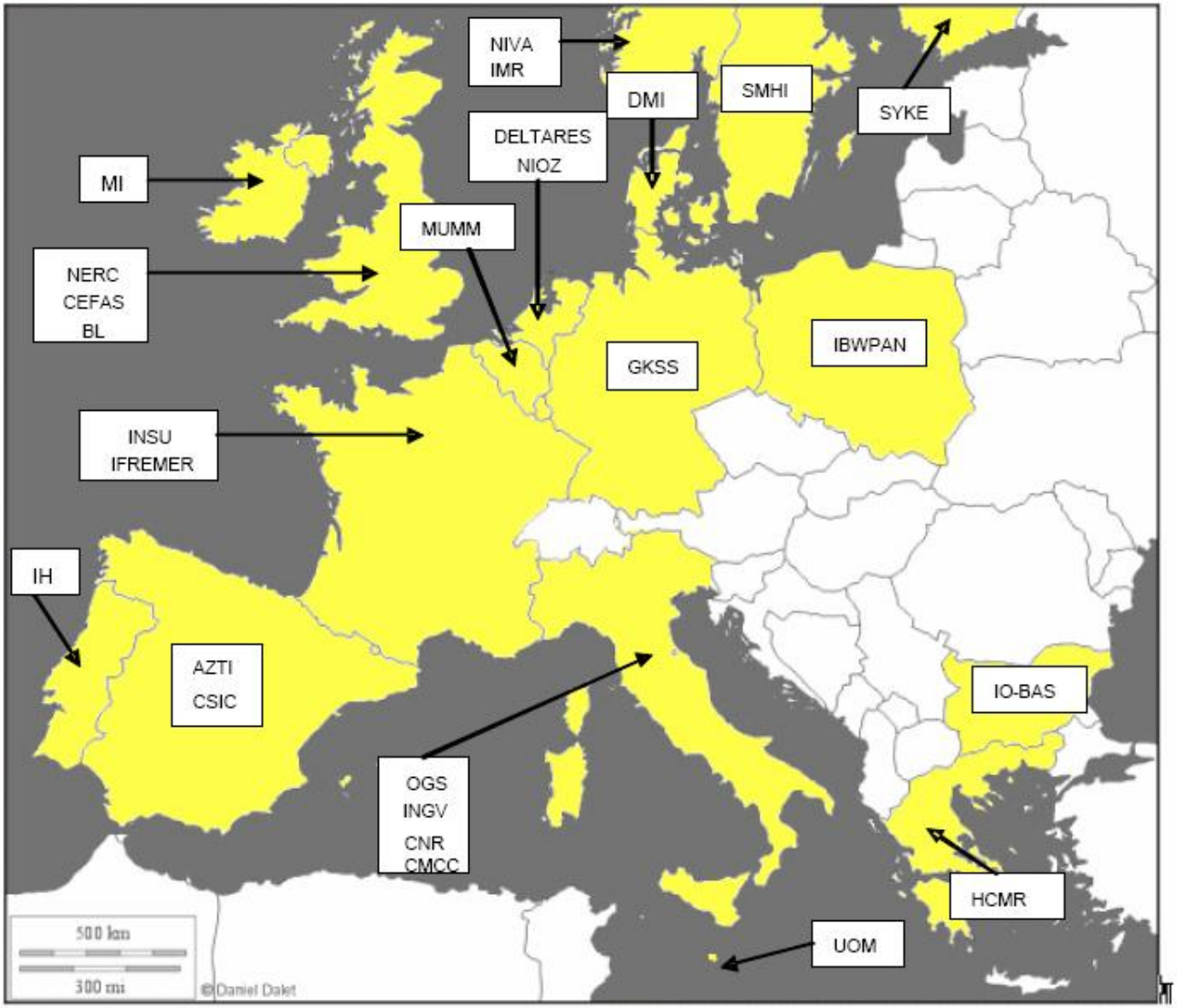
2 - In situ data

3 - Real time or quasi real time for data delivery (maximum delay 1 day to 1 month TBD)

4 - Data Quality Control: minimum QC performed by operators

5 - Parameters
Mandatory (not all): T, S, Chl-a, Turb, DO, pCO2
Optional: Nutrients: nitrates, silicates, phosphates, ammonium

6 - Sampling:
Mandatory Surface (1 m)
Optional Water column and close to sea floor


NIVA
IMR
DMI
SMHI
SYKE
DELTARES
NIOZ
MI
MUMM
NERC
CEFAS
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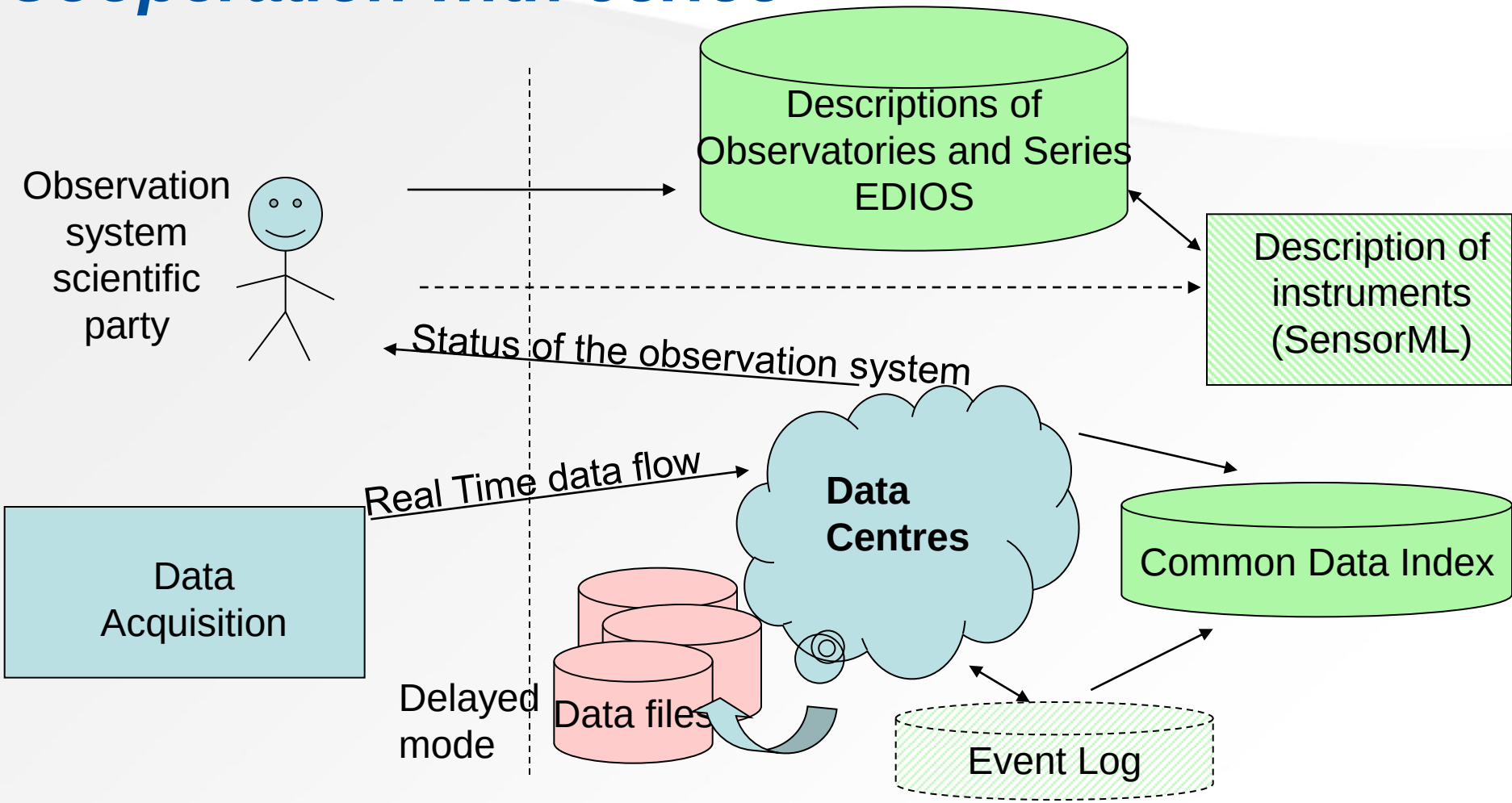
Cooperation with Jerico



JERICO (at sea) **MyOcean In-Situ TAC and SeaDataNet (on land)**

SeaDataNet 2 and others marine infrastructures

- SeaDataNet infrastructure serves as a data management component for other projects
  - Technical support : standards, vocabularies, software
  - Services : metadata and data management
    data discovery, data visualisation and access
- SeaDataNet infrastructure receives directly information from other projects
  - Standardized metadata and data from vessels and observation systems”
  - Data exchanges in real time and delayed mode