



ENECTIVITY Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris

## **ENEON first workshop Observing Europe: Networking the** Earth Observation Networks in Europe 21-22 September, Paris

### SeaDataNet/Ifremer

**Thomas Loubrieu/thomas.loubrieu@ifremer.fr** Michèle Fichaut/michele.fichaut@ifremer.fr Gilbert Maudire/gilbert.maudire@ifremer.fr







ENECTIVITY Europe: Networki g Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris



## SeaDataNet

- 1.1 **Role:** If remer coordinates, is a major contributor for data and tools, personnally in charge of technical contribution of Ifremer.
- 1.2 Objective: organize a European network of National Oceanographic Data Centres (NODC). Set up a distributed database of marine observation for research community, promote standards, define profiles, provide tools for marine data management.
- 1.3 Main contributors are NODCs (46) and a **technical task group** (MARIS, IFREMER, BODC, HCMR, ...)
- 1.4 Commitment: maintain standard interfaces (services) and regular data and metadata contribution, EC DG research project (end 10/2015). Followed by operation agreement of the consortium
- 1.5 2000 users in the database, mostly research and education (students).





ENECTIVITY First workshop Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris



1.6 Requirement management: No database of requirements but internal use cases products to assess the infrastructure, survey and feedback form.

#### 1.7-8 Cost-effort:

- <u>Upgrades</u>, interface maintainance funded by EC projects: 1.5 M€/year
- Operations mostly funded at national level : unknown cost

#### 1.9 Key issues for sustainability:

- Long term preservation of observations data (users of the future !)
- Identify marine e-infrastructure in between observation networks and generic e-infrastructure (like GEOSS)



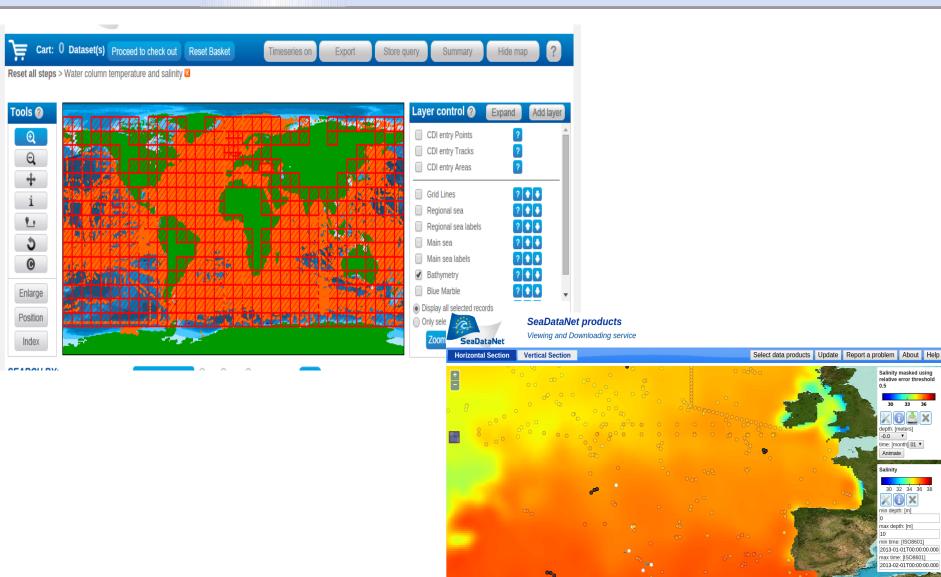


ENE first workshop ope: Networking the Earth Observation Networks in Europe 21-22 September, Paris

## **Data (1/2)**

- 2.1 **Observations:** trans-disciplinary marine (seabed, water-column, biodiversity). Products are homogenously qualified observation collection and analysed climatologies (Temperature/salinity).
- 2.2 Coverage: No temporal limits (1900 to current, delayed mode), marine data collected by EC members
- 2.3 Data management: in 46 NODCs federated in a network with standard interfaces and portal.
- 2.4 Quality: NODCs provide qualified datasets, products provide a feedback, control loop on quality.
- 2.5 Data continuity: NODC are responsible for continuity at national level (risk of weakest link).

# **ConnectinGEO** ENECTING Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris



Salinity masked using relative error threshold 0.5

depth: [meters] -0.0 V me: [month] 01 T Animate Salinity 30 32 34 36 38 X 🚺 🗙 nin depth: [m] nax depth: [m] nin time: [ISO8601] 2013-01-01T00:00:00.000 ax time: [ISO8601] 013-02-01T00:00:00.000

33 36 30

X

-13.62061, 42.60986





ENECTIVITY first workshop Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris



- 2.6 **Data access:** authenticated, specific license, some restricted datasets otherwise citation is requested.
- 2.7 Interfaces: CSW/ISO19139, OGC/WMS, OGC/WFS, OGC/SWE, INSPIRE
- 2.8 New requirements: Real time metadata/data management support, Archive multiple processing or quality levels (today «best» copy only),
- 2.9 Additional useful observations: Copernicus in-situ for near real time marine observation (integrated in EMODNET-Physics).
- Historical scope is ocean physics (Temperature, salinity), extension to Biodiversity (with Euro-OBIS), Sea bed (with NGDCs).





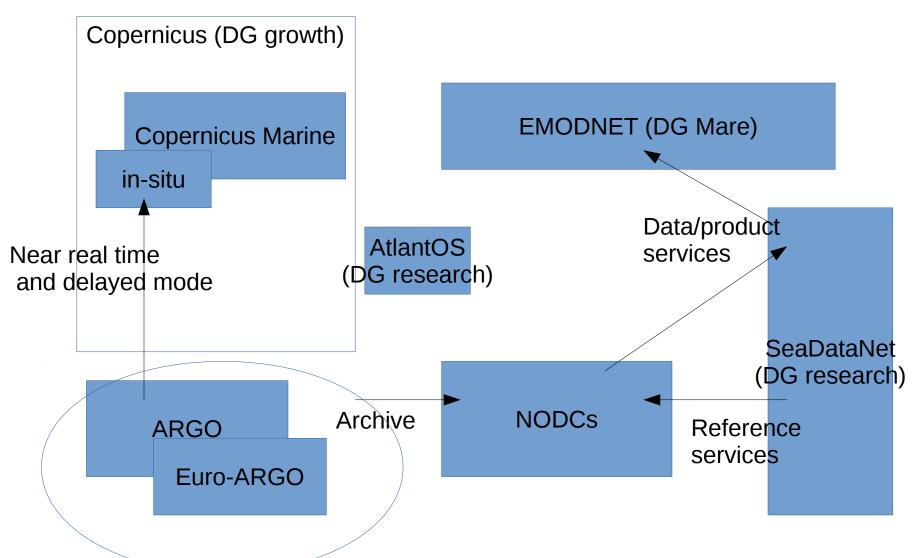
ENES Afirst workshop Europe: Networking the Earth Observation Networks in Europe 21-22 September, Paris

### Interfaces

- 3.1 with other networks:
  - inputs from ARGO, JERICO, EUROFLEET, EMSO
  - output to UNESCO/IOC/IODE/Ocean Data Portal.
- 3.2 **contribution to GEOSS:** aggregated observations metadata throuh GEO-DAB. Granularity issues.
- 3.3 **interface improvement:** international framework for platform identification, observation data duplicate management.
- 3.4 **ENEON role:** seaDataNet is well organizing standards and reference services (e.g. vocabulary) in the marine community.
- As trans-discipinary infrastructure, SeaDataNet is most successful for reference services (thesauri, directories, standards, ...) than portals.
- ENEON could do similar activity at transdisciplinary level (e.g. vocabulary management tools, format/interface checkers ?).
- 3.5 **Organization:** understanding of ENEON role in already complex marine community is an issue.



## **Graphic summary**





## **Expectation from ENEON**

Consider interoperability from reference services on: vocabularies, interface/format checkers There is a lot to be done to make accessible, even collaborative trans-disciplinary infrastructures for these services

Consider tools finality (e.g. observation network operator support, quality/provenance of datasets, ...) before interoperability and standards.

The success of such tools will promote interoperability and data access.