DATA-MEQ working group
Progress since November 2013

DataMEQ Working group

Brussels May 2014

Terms of Reference

1. *Develop an overall concept for the management of EuroGOOS observation data taking into consideration data management systems which are developing within GMES and JCOMM*

2. *Identify, in consultation with the EuroGOOS ROOSs, as appropriate, the type of observations which can be made available either in real-time or in delayed mode*

3. *Propose the most effective ways to make observation data readily available for operational purposes in a sustained matter*

4. *Propose mechanisms to ease access to delayed mode observation data in cooperation with NODCs, keeping aware of the progress in SeaDataNet*

5. *Draft a minimum set of standards for data quality control which is related to observation data collection, processing and exchange procedures*

DATAMEQ MEMBERS 2014

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Other program representatives

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Main principles for Data Exchange within EuroGOOS

- Open data policy
- Rely on standards where they exist
- Developed in Collaboration with European Data Exchange projects i.e. EMODnet Physics, SDN
- Has to be endorsed by the ROOSs and extended to fit their own purposes

Relationships to major projects

- **MyOcean** for near real-time data stream
- **SeaDataNet** and **MyOcean** for building historical products for reanalysis purposes
- **SeaDataNet** for standards improvements, scientific validation, and long term stewardship and access of data archives
- **JERICO** for coastal network expertise,
- **EuroArgo** for floats , **GROOM** for Gliders
- **EMODnet Physics** for interoperability between SeaDataNet and MyOcean as well as the other EMODnet portals

NRT Quality Control
ToR 5

- *The group recommended to update the **DataMEQ RTQC procedures** for T&S, Current and Sea-Level especially for **coastal data**.*
    - *Activities going on at regional level but not yet recommendations*

– *The group recommends publication of **RTQC procedure for O^2/Chl** recommendations based on the work developed within MyOcean, JERICO, GROOM and EuroArgo.*
    - *The procedure developed within MyOcean are under discussion at DATAMEQ level. Plan a presentation at Lisbon*

– The group recommends further **coordination between platform operators for setting up new technology** in order to meet operational oceanography needs (e.g. Radar)
    - A **COST** proposal was submitted within **EMODnet Physics** and the **European HFR Group** to work on this issue

Interoperability between real-time and delayed mode data streams, ToR 1 & 4

- The group recommends **harmonization of some essential metadata** at EuroGOOS level:
  - A **Unique Platform code** that should be delivered by a European institution and would be used both in ROOS portals and NODCs This could be managed by **JCOMMOPS** or **EuroGOOS office**.
    - No progress yet
  - Providers should be referenced using unique **Provider codes.** The group recommends use of the **EDMO vocabulary managed by SeaDataNet**, extended to include monitoring institutions in addition to the research institutes.
    - Underway in MyOcean and EMODnet Physics pushing
  - A **list of mandatory metadata** should be exchanged with the data information, including: how data have been processed, provenance, link to web services where available…
    - No progress yet

Interoperability between real-time and delayed mode data streams, ToR 1 & 4

•The group recommends definition of a **common strategy to handle duplicates** and get the “best or master copy” out of the network.

•The group recommends provision of **quality information** about the measurement (error-bars, accuracy, standard deviation)

- •No progress yet

Interaction with providers, ToR 2 & 4

The group recommends enhancement of provider and user interaction, including:

- Organize **periodic regional meetings** to facilitate provider and user interaction
  - Organized through EMODnet Physics II
- Provision of clear **guidelines to institutes through a handbook** for institutes that want to exchange the observation they manage
  - To be done as part of MyOcean/Jerico/PERSEUS: a first draft exists
- A **feedback loop** set up by regional centers between provider and distributor during regional assessment
  - As been initiated between MyOcean and SeaDataNet NODC and was beneficial for both projects

Interaction with providers ToR 2 & 4

- Provide material to data providers that they could use at local level to improve their visibility as a regional center
  - Still to be developed but some ideas using the accounting mechanism developed in MyOcean,
- Continuation of work on **data citations** (DOI etc)
  - GOOD progress within ODIP project
- Setting up **an efficient update process** between regional centers and providers
  - To ensure that NRT data flow corresponds to data as available at data originators
  - To ensure that SeaDataNet will have more complete coverage of all available long term series
  - Within EMODnet Physics an inventory of the differences between provider holdings and ROOS portals is underway and interaction between provider and ROOS/INSTAC are carried out to solve the anomalies whenever possible

What can be done with EMODNet Physics

- **EMODnet Physics will deliver a document with analysis per data provider with:**
  - **Possible short comings in present NRT exchange**
  - **Possible extra stations for inclusion in NRT exchange**
  - **Overview of SeaDataNet archives**

- **The group recommends further action by data providers and distributors to improve the situation considerably by:**
  - **EuroGOOS members coordinated by ROOSs undertake follow-up (Oct 2013 – June 2014):**
    - **Check and correct short comings NRT exchange**
    - **Check and arrange adding extra stations NRT exchange**
  - **EuroGOOS members together with SeaDataNet colleagues undertake (Oct 2013 – Oct 2014):**
    - **Populating the SeaDataNet CDI service with full coverage of long term validated data sets for monitoring stations (historic and present)**
    - **Thereby paying attention to using consistent station names / ids**
  - **Regular communication between ROOSs and EMODnet Physics partners about progress and to safeguard high quality**

❖ **Note: EMODnet Physics has a budget of 500.000 Euro for EuroGOOS members for undertaking these efforts.**

Delayed mode Data Exchange and Quality Control, ToR 4&5

- *The group recognized the **importance of an up-to-date catalogue of the existing observing systems** in Europe such as EDIOS, and recommend a collaboration with the ROOSs to **update such a catalogue in a distributed and automated manner***
    - *No progress yet but heavily discussed, alternatively use available catalogue within EMODnet Physics with added information*

- *Historical in situ datasets are important for reanalysis activities carried out within EuroGOOS . Therefore the group recommends **SDN to set up periodic data sets providing the "master copy"** (removing duplicates) **for a core set of parameters** (starting T&S).*
    - *First version of common product between MyOcean and SDN were developed in 2013-2014. An update in underway end 2014 and the interfaces are improving*

- *As a counterpart SDN asked the **ROOSs to provide feedback on the quality of the yearly update** to help SDN improving these products that will be delivered officially on a four year basis fully qualified*