Data Management, Exchange, and Quality Working Group (DataMEQ WG) Terms of Reference

1. Background, Rationale, and Link with EuroGOOS Strategic Priorities

EuroGOOS Data Management, Exchange, and Quality Working Group (DataMEQ WG) helps improve harmonisation and integration of European marine data. DataMEQ WG includes members from the Copernicus Marine Service, SeaDataNet, EMODnet, EuroGOOS Regional Operational Oceanographic Systems (ROOS), EuroGOOS Task Teams, and other relevant European initiatives.

DataMEQ WG was established in 2006 to develop an overall concept for management of data from the EuroGOOS community and help aggregate these data into European and global systems. In 2021, the terms of reference (this document) were reviewed to outline new objectives and set out the *modus operandi* and governance in alliance with the other EuroGOOS working groups and task teams.

New DataMEQ WG terms of reference support the implementation of the following objectives of the EuroGOOS 2030 Strategy (released in 2021): Objective 1 'Stimulate Communities of Practice', and Objective 3 'Strengthen and expand partnerships'. Specific tasks supporting the EuroGOOS 2030 Strategy Implementation Plan are detailed in Part 3 of these terms of reference.

2. Target Audience and Expected Impact

The activities of DataMEQ WG will have as their main targets, the scientific and technological providers of data and services facilitated by EuroGOOS. DataMEQ WG will also be a key element in the integration of EuroGOOS activities and subsidiary bodies among themselves.

The desired impact of DataMEQ WG is to support the EuroGOOS community (e.g. members of EuroGOOS and its Task Teams and ROOS) in the development of interoperable European data systems of systems and implementing the FAIR principles in support of the European and national ocean services.

3. Aim, Objectives & general approach

With these revised terms of references DataMEQ WG will work to support the following activities identified in the implementation plan of the EuroGOOS 2030 Strategy.

Under objective 1 **'Stimulate Communities of Practice'**, the following tasks should be supported by DataMEQ WG:

- Task 1.1 Strengthen and integrate EuroGOOS ROOS, Task Teams, and Working Groups
  - o Revise WGs and TTs Terms of Reference (ToR) and review the membership to ensure integration between EuroGOOS subsidiary bodies and broad geographic and gender balanced representation
  - o Develop a set of case studies of EuroGOOS organisational integration regarding FAIR data services implementation
- Task 1.2 Maintain a forum for exchange of best practices in operational oceanography - Sub-task 1.2.1 Facilitate linkages between European ocean observing and forecasting community to define future research priorities in ocean observing and forecasting capabilities
  - o Support projects (EuroSea, JERICO projects) and Ocean Decade Programmes (CoastPredict, BOON, MarineLife 2030, SciNMeet, OBPS) work to connect observing systems data services with forecasting and modelling community

Sub-task 1.2.3 Support the timely delivery of fit for purpose high-quality data to services
  - o Work with data providers to improve data interoperability through the development of FAIR metadata and data services that will facilitate data quality assessment and data sharing

Sub-task 1.2.4 Propose data policy and data management priorities to transition to cloud-based services
  - o Support EuroGOOS office to update EuroGOOS data policy to reflect the tiered collection of Essential Ocean Variables among EuroGOOS members and wider ROOS members

Sub-task 1.2.5 Enhance international cooperation and facilitate interoperability, re-usability, and capacity development of best practices
  - o Document methodologies and best practices and include them in the Ocean Best Practices System.

Under Objective 3 **'Strengthen and expand partnerships'**, the following tasks should be supported by DataMEQ WG:

- Task 3.2 Advance existing partnerships to enhance near-real time delivery of data to users – Subtask 3.2.1 Create and foster partnerships between data providers, data aggregators, forecasting community and end-users (e.g. industry and others)
  - o Engage with appropriate stakeholder representatives both as technology and data providers and users
  - o Identify priorities for stakeholders and areas for cooperation
- Task 3.3 Stimulate the knowledge transfer and broad use of collected data
  Subtask 3.3.1 Strengthen and create partnership with research and academia
  - o Facilitate cooperation with relevant external scientific communities for broader use of operational oceanography data
- Task 3.4 Develop partnerships with networks engaged in ocean health and climate observation and forecasting
  Subtask 3.4.1 Improve synergies between the operational oceanography, environmental and climate related monitoring and other ocean observing communities
  - o Facilitate coordinated efforts at the regional and pan-European level to enhance ocean biology and biogeochemistry observations data delivery
- Task 3.5 Co-produce of oceanographic services and information
  Subtask 3.5.1 Improve interfaces between Copernicus Marine Service and coastal observations
  - o Develop and strengthen partnership with Copernicus Marine Service and the wider Copernicus programme to promote sustained observations and user uptake at national and local level

- o Contribute to relevant Ocean Decade programmes (e.g. Coast Predict)
- o Identify user requirements for data in the coastal zone for Copernicus and link with information on the existing observations.

4. Composition and Operation

The working group is composed of a Chair, with potentially a Co-Chair, and members. Chair is supported by a dedicated officer at the EuroGOOS Office.

4.1 Chair's nomination process, mandate, responsibilities

Chair must be a representative of a EuroGOOS member organisation[1]. A Chair can share the responsibility with a Co-Chair. In this case, the mandate and role and responsibilities are the same as for the Chair. The Chair/Co-Chair is elected by DataMEQ WG and approved by the EuroGOOS Executive Directors Board and/or the EuroGOOS General Assembly. The mandate of Chair/Co-Chair is for three years, renewable once, upon re-election for a two-year term.

DataMEQ WG Chair/Co-Chair is responsible for:

- Oversight of the working group;
- Alignment of the working group's work with its terms of reference and with the EuroGOOS Strategy;
- Developing the working group yearly implementation plan in line with the above;
- Reporting to the EuroGOOS General Assembly and EuroGOOS Executive Directors Board (including both at physical meetings and in writing);
- Regularly reviewing the membership of the working group (e.g. once a year);
- Regularly liaise with the EuroGOOS Office to follow up on the working group's alignment with the other EuroGOOS activities (at least bi-monthly);
- Representing the working group at external meetings.

4.2 Members nomination and selection process, mandates, responsibilities

Members are selected based on a call for nominations to the EuroGOOS member organisations. If there is not enough expertise within the EuroGOOS member organisations, working group members can be selected through an external call for expression of interest or invitation.

Members are selected based on the pool of nominations by the Chair/Co-Chair and the EuroGOOS Office, keeping in mind the spread and representativeness in expertise, geographical representation, and the gender balance of the group.

Members do not have an established mandate unless the activity is terminated. However, membership is reviewed by the Chair/Co-Chair and the EuroGOOS Office on a regular basis and can be terminated if the member does not fulfil the below responsibilities.

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[1] http://eurogoos.eu/about-eurogoos/members

Members represent the different EuroGOOS ROOS, Task Teams, and European data services (Copernicus Marine Service, SeaDataNet, EMODnet at least Physics, Chemistry and Ingestion lots), as well as data projects that would have expertise to share within the DataMEQ WG.

DataMEQ WG members are responsible to:

- Attend working group meetings;
- Participate in the working group activities;
- Deliver outputs as required, orally or in writing, in a timely manner;
- Represent the activity at external meetings, upon agreement with the Chair and the EuroGOOS Office;
- Follow-up on the developments related to the working group's activity, to ensure the working group's work is timely and topical.

5. Mode of Operation

These terms of reference will be submitted to the EuroGOOS Directors Board for approval. As DataMEQ WG has been already established, these terms of reference do not propose a launch of a new activity, but an update of an existing one – therefore an approval by the EuroGOOS General Assembly is not required.

DataMEQ WG can issue a call for additional member nominations to ensure timely and efficient delivery of a work plan based on these terms of reference.

The group operates based on its terms of reference and annual implementation plans. Its activities are reviewed at the EuroGOOS Executive Directors Board meetings (four times a year) and the EuroGOOS General Assembly (annually).

6. Deliverables

A list of envisaged deliverables is prepared at the beginning of a new year based on these terms of reference, along with the work plan. The list of deliverables will be updated as the activity develops.

7. Indicative Timetable (Gantt chart)

The below template is indicative and only includes some of the key milestones agreed at the start of 2022. It will be updated as the activity evolves based on the above guidelines and the implementation plan.

	03/22	05/22	06/22	09/22	1/23	5/23	10/23	M/Yr
DataMEQ WG meeting	x							
Approval of ToR by DataMEQ	x							
Election of new Chair	x							
Agreement on the annual work plan	x							

Approval of ToR by EuroGOOS Board	x							
Delivery of Data Policy concept note to EuroGOOS GA (further to discussion at Integration Workshop)		x						
Support to EuroSea Deliverable on network data harmonisation		x						
Support to EuroGOOS Glider TT workshop on data			x					
DataMEQ WG meeting				x				
Drafting of Data policy			x	x	x	x		
DataMEQ WG meeting					x			
DataMEQ WG meeting						x		
DataMEQ WG meeting							x	

EuroGOOS
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Observing System