EuroGOOS
European Global Ocean Observing System

EuroGOOS Annual General Assembly Meeting
19-21 May 2025
Helsinki, Finland

Agenda Item 2: Open Session on EuroGOOS Activities

Document 2.8: WG Chairs' Reports

Status Report for the EuroGOOS General Assembly 2025 (Biological WG)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Vera Fonseca (Centre for Environment, Fisheries and Aquaculture Science (Cefas), United Kingdom, vera.fonseca@cefas.gov.uk

Mauro Celussi (National Institute of Oceanography and Experimental Geophysics (OGS), Italy, mcelussi@ogs.it

2. **List of current members, affiliation and country**

- Andreja Ramšak, National Institute of Biology (NIB), Slovenia
- Antonio Cascella, National Institute of Geophysics and Volcanology (INGV), Italy
- Bengt Karlson, Swedish Meteorological and Hydrological Institute (SMHI), Sweden
- Costas Frangoulis, Hellenic Centre for Marine Research (HCMR), Greece
- Daniele Iudicone, Anton Dohrn Zoological Station (SZN), Italy
- Francis O'Beirn, Marine Institute (MI), Ireland
- Hans H Jakobsen, Aarhus University (AU), Denmark
- Helena Hauss, Norwegian Research Centre (NORCE), Norway
- Isabella Buttino, Italian National Institute for Environmental Protection and Research (ISPRA), Italy
- Ioulia Santi, European Marine Biological Resource Centre (EMBRC), France
- Iveta Jurgensone, Latvian Institute of Aquatic Ecology (LHEI), Latvia
- Julia Uitz, French National Centre for Scientific Research (CNRS), France
- Jun She, Danish Meteorological Institute (DMI), Denmark
- Kaisa Kraft, Finnish Environment Institute (SYKE), Finland
- Klaas Deneudt, Flemish Marine Institute (FMI), Belgium
- Klas Ove Moeller, Helmholtz-Zentrum Hereon (Hereon), Germany
- Lionel Guidi, French National Centre for Scientific Research (CNRS), France
- Lucie Cocquempot, French Research Institute for Exploitation of the Sea (Ifremer), France
- Maite Louzao, Fundación AZTI, Spain
- Martin Edwards, Plymouth Marine Laboratory (PML), United Kingdom
- Mauro Celussi, National Institute of Oceanography and Experimental Geophysics (OGS), Italy
- Naiara Rodriguez-Ezpeleta, Fundación AZTI, Spain
- Nicolas Pade, European Marine Biological Research Centre (EMBRC), France
- Nina Dzhembekova, Institute of Oceanology (BAS), Bulgaria
- Pier Luigi Buttigieg, Helmholtz-Zentrum für Ozeanforschung Kiel (GEOMAR), Germany
- Rainer Kiko, Helmholtz Centre for Ocean Research (GEOMAR), Germany
- Silvana Neves, Oceanic Platform of the Canary Islands (PLOCAN), Spain
- Sirje Sildever, Tallinn University of Technology (TalTech), Estonia
- Susan Evans, National Oceanographic Centre (NOC), United Kingdom

- Veronique Creach, Centre for Environment, Fisheries and Aquaculture Science (Cefas), United Kingdom
- Wenche Eikrem, Norwegian Institute for Water Research (NIVA), Norway

3. Objectives:

The EuroGOOS BioWG aims to support the integration of biological observations into operational ocean observing systems. Its main objectives are:

To promote the use of genomics and automated imaging technologies in marine biological monitoring.

To align biological data streams with GOOS and GEO BON frameworks (EOVs and EBVs).

To support standardization, interoperability, and long-term sustainability of biological observations.

To foster collaboration between EuroGOOS members, biological observatories, and global biodiversity monitoring initiatives.

4. Relevance to the EuroGOOS Strategy:

The group's work directly supports the EuroGOOS Strategy 2020–2030 by:

Contributing to the advancement of integrated and sustained ocean observing systems.

Strengthening biological observation capabilities, a key pillar in the evolution toward comprehensive ocean monitoring.

Supporting data standardization, interoperability, and open sharing of biological datasets aligned with FAIR principles.

Enabling the connection between regional biological observations and the global GOOS structure, ensuring scalability and policy relevance.

5. Key achievements in the reporting period (May 2024-April 2025):

Merging of two previously separate efforts (genomics/eDNA and imaging) into a single document to serve both EuroGOOS and global audiences.

Finalization and internal release of the white paper:

"Recommendations for Implementation of Genomics and Imaging Technologies in Marine Observations."

Reinstatement of regular monthly meetings (2nd Tuesday each month) to maintain group cohesion and productivity.

Official appointment of two active co-chairs, Mauro Celussi and Vera Fonseca, to provide leadership continuity.

Active planning and development of a manuscript version of the white paper, intended for publication in alignment with GOOS BioEco and the Biodiversity GOOS perspective.

Contributions to the EuroGOOS Implementation Plan 2024–2026.

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

Reduced member engagement due to lack of funding and changing institutional priorities.

Delays in delivery of outputs due to prolonged legacy reporting obligations.

Leadership vacuum during a key transition period, prior to appointment of current co-chairs.

Limited progress on coordination with other EuroGOOS groups (e.g., Coastal or Data WG), though actions are planned.

7. **Main priority areas and other major activities (2025-2026):**

Finalization and submission of a peer-reviewed manuscript based on the white paper.

Further development of links with the GOOS BioEco Panel for specification sheet alignment and pre-review of the manuscript.

Identification of key biological data streams across Europe that could contribute to EOV/EBV reporting.

Recruitment of new members to diversify expertise and increase capacity.

Strategic engagement with the EuroGOOS Data WG to address biological data and metadata frameworks.

Coordination with relevant global efforts such as MBON, OBON, and Ocean Practices.

8. **Meetings during the reporting period (May 2024-April 2025):**

Monthly BioWG meetings (since early 2024): Second Tuesday of every month.

In-depth working sessions in March and April 2024 to finalize the white paper and define manuscript strategy.

Coordination calls between co-chairs and EuroGOOS Secretariat for Implementation Plan input.

9. **Next planned meetings (2025-2026):**

Continuation of monthly virtual BioWG meetings.

One or more focused writing workshops (virtual/hybrid) for manuscript completion.

Participation in the EuroGOOS Assembly and related events as opportunities for wider coordination.

10. **Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:**

Planned interactions with the EuroGOOS Data WG to define metadata needs, IP policy, and FAIR data flows for biological observations.

Initial (pending) discussions with the former EuroGOOS Coastal WG to explore overlaps (group no longer formally active).

11. **Links and synergies with non-EuroGOOS initiatives:**

A dedicated Google Doc is being used for collaborative manuscript drafting and coordination: Report_BiolWG_GoogleDrive

Co-chairs encourage members to revisit commitments and action items during each monthly call to maintain momentum.

Efforts are underway to map relevant biological observation streams across EuroGOOS ROOS as part of the EOV alignment process.

12. **Additional information:**

A dedicated Google Doc is being used for collaborative manuscript drafting and coordination: Report_BiolWG_GoogleDrive

Co-chairs encourage members to revisit commitments and action items during each monthly call to maintain momentum.

Efforts are underway to map relevant biological observation streams across EuroGOOS ROOS as part of the EOV alignment process.

13. **Suggestions:**

Strengthen institutional support for biological observations across EuroGOOS WG.

Facilitate funding or coordination calls that allow in-kind contributions (e.g., task team time, travel) to be acknowledged and better integrated.

Improve visibility of BioWG work through shared webinars, outreach posts, and direct communication with other WGs.

Develop a shared resource hub or EuroGOOS-hosted landing page for genomics and imaging tools in biological monitoring.

Status Report for the EuroGOOS General Assembly 2025 (Science Advisory WG)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Lucie Cocquempot, IFREMER / Board member, lucie.cocquempot@ifremer.fr

Manfred Zeiler, BSH, manfred.zeiler@bsh.de

2. **List of current members, affiliation and country**

- Alejandro Orfila, Mediterranean Institute for Advanced Studies (IMEDEA), Spain
- Anna Nikolopoulos, Norwegian Polar Institute (NPI), Norway / Arctic ROOS co-chair
- Annette Zijderveld, Rijkswaterstaat-Ministry of Infrastructure and Water Management, Netherlands / NOOS chair
- Antonio Bonaduce, Nansen Environmental and Remote Sensing Center (NERSC), Norway
- Branko Čermelj, National Institute of Biology, Slovenia / Board member
- Dina Eparkhina, EuroGOOS Office (SAWG facilitator, from February 2025)
- Eric Jansen, Euro-Mediterranean Centre on Climate Change (CMCC), Italy
- George Petihakis, Hellenic Centre for Marine Research (HCMR), Greece
- Ghada El Serafy, Deltares, Netherlands / Board member / Coastal WG co-chair
- Giovanni Coppini, Euro-Mediterranean Centre on Climate Change (CMCC), Italy / Board member
- Giuseppe Civitarese, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Italy
- Helene Frigstad, Norwegian Institute for Water Research (NIVA), Norway
- Henning Wehde, Institute of Marine Research (IMR), Norway
- Holger Brix, Helmholtz-Zentrum Geesthacht (HZG), Germany / Board chair
- Inga Lips, EuroGOOS Office (until April 2025)
- Joanna Staneva, Helmholtz-Zentrum Geesthacht (HZG), Germany
- Joseph Nolan, EuroGOOS Office (SAWG facilitator, until January 2025)
- Julien Mader, AZTI, Spain / Board member / IBI-ROOS ch-chair
- Jun She, Danish Meteorological Institute (DMI), Denmark
- Laura Tuomi, Finnish Meteorological Institute (FMI), Finland / BOOS chair
- Luísa Lamas, Hidrográfico Portugal, Portugal
- Manuel Ruiz Villarreal, Spanish Institute of Oceanography (IEO), Spain / IBI-ROOS co-chair
- Marco Marcelli, Tuscia University and Euro-Mediterranean Centre on Climate Change (CMCC), Italy
- Sebastien Legrand, Royal Belgian Institute of Natural Sciences (RBINS), Belgium / Board member
- Sara Morucci, Italian Institute for Environmental Protection and Research (ISPRA), Italy
- Simona Simoncelli, National Institute of Geophysics and Volcanology (INGV), Italy
- Vidar Lien, Institute of Marine Research (IMR), Norway / Arctic ROOS co-chair

3. **Objectives:**

(From ToR)

A general approach for the EuroGOOS SAWG in the period 2021-2024 (and to be updated every 4 years) is to concentrate efforts on the applied research issues that can envisage a strategy for integrating ROOSs, WGs and TTs towards a seamless approach for the implementation of the EuroGOOS scientific strategy areas in EOOS, operational modelling and forecasting (including climate change), coastal operational oceanography, and operational ecology, which will lead to an expansion of EuroGOOS services from operational activities to climate change and ocean health.

In view of that, seven scientific and technological issues are targeted, including:

1. Define scientific priorities for enhancing internal integration among ROOSs, WGs, TTs, the EuroGOOS members and the EuroGOOS Office;
2. Strategically support the work with ROOSs to identify gaps in developing seamless modelling, monitoring and forecast capacities, including optimizing regional sea and coastal ocean observing systems;
3. Strategically support the work with ROOSs to identify scientific challenges and make recommendations for developing marine climate change adaptation service especially for high-resolution regional, coastal-estuary-flooding climate modelling, impact modelling and indicator service;
4. Strategically support the work together with ROOSs, regional sea conventions, and fishery communities to identify scientific challenges and make recommendations for developing operational ecological service to fit for the purposes on ocean health;
5. Propose the design of a roadmap for developing operational ecology;
6. Support improved communication for scientific cooperation within ROOSs and between ROOSs, WGs and TTs (open and shared science) by sharing best practices in using efficient modern communication tools for dynamic and efficient joint research development.

4. Relevance to the EuroGOOS Strategy:

(From ToR)

1. Supporting cross-cutting integration among ROOSs, WGs and TTs on scientific and technological aspects;

2. Supporting the implementation of the EuroGOOS strategy and development of EOOS;

3. Giving advice by identifying scientific gaps and addressing on the scientific challenges in developing seamless modelling, monitoring and forecasting capacities, covering full scale marine space, time and parameters, and serving public safety, blue growth, climate change adaptation, and ocean health services;

4. Facilitating scientific gaps and cooperation with relevant external communities, e.g. marine environment, fishery, climate change, or commercial blue-growth sectors.

5. Key achievements in the reporting period (May 2024-April 2025):

- Co-Chair 2 since July 2024
- Webinar I: Technological development for sustainable low-cost marine observations
- 4 November 2024, c. 75-80 participants

- Initial facilitation of the drafting group to develop a EuroGOOS white paper on low-cost technologies (led by SAWG member Marco Marcelli)
- Webinar II: Artificial Intelligence & Machine Learning in Operational Oceanography
- 7 February 2025, c. 100 participants
- Subsequent engagement with Arctic ROOS, BOOS's AIWG, and CWG (??) to develop further community positions on AI
- Short ROOS presentations at the SAWG meetings: ArcticROOS (February) and NOOS (March)
- Annual Work Plan in progress
- Support in developing EuroGOOS presentation at the One Ocean Science Congress (3-6 June 2025, Nice)

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

Availability of the members

Limited exchange of information among the Board, ROOS, WGs and TTs

7. **Main priority areas and other major activities (2025-2026):**

1. Participation of SAWG Co-chairs at ROOS Annual Meetings for a better cross-cutting of SWGA with ROOS:

- Lucie Cocquempot: IBI-ROOS and MonGOOS
- Manfred Zeiler: Arctic ROOS, NOOS and BOOS

2. To be discussed: Updating of SAWG Terms of Reference (2025 -2029)

3. Communication with the Commission: EuroGOOS scientific priorities to be transmitted (topics & process to develop an inclusive EuroGOOS position, format, timeliness)

4. Addressing scientific gaps and cooperation with relevant external communities, e.g. marine environment, fisheries and other blue economy sectors, climate change, coastal oceanography, etc.

8. **Meetings during the reporting period (May 2024-April 2025):**

03 June 2024

03 July 2024

03 September 2024

08 November 2024

11 December 2024

06 February 2025

03 March 2025

9. **Next planned meetings (2025-2026):**

Every 4 – 6 weeks based on the availability of the members

10. **Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:**

Participation of SAWG Co-chairs (in presence or online) at ROOS Annual Meetings for a better cross-cutting

Aligning of SAWG agenda: fixed TOP on cross-cutting issues of SAWG/ROOS at each meeting (input based on the availability of the members)

Close collaboration with EuroGOOS Office to determine internal and external opportunities, gaps, and needs

11. **Links and synergies with non-EuroGOOS initiatives:**

12. **Additional information:**

SAWG minutes of meetings shall be disseminated among the EuroGOOS members to enhance the flow of information and support input for the SAWG activities

13. **Suggestions:**

Status Report for the EuroGOOS General Assembly 2025 (Coastal Working Group)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Ghada El Serafy, Deltares, ghada.elserafy@deltares.nl

Arthur Capet, RBINS/ULB, acapet@naturalsciences.be

2. **List of current members, affiliation and country**
   - Antonello Bruschi, Italian National Institute for Environmental Protection and Research (ISPRA), Italy
   - Sebastien Legrand, Royal Belgian Institute of Natural Sciences (RBINS), Belgium
   - Arthur Capet, University of Liège (ULiège), Belgium
   - Katrijin Baetens, Royal Belgian Institute of Natural Sciences (RBINS), Belgium
   - Jun She, Danish Meteorological Institute (DMI), Denmark
   - Antti Westerlund, Finnish Meteorological Institute (FMI), Finland
   - Guillaume Charria, French Research Institute for Exploitation of the Sea (Ifremer), France
   - Ivane Pairaud, French Research Institute for Exploitation of the Sea (Ifremer), France
   - Angelique Melet, Mercator Ocean International (MOi), France
   - Joanna Staneva, Helmholtz-Zentrum Hereon, Germany
   - Tomasz Dabrowski, Marine Institute (MI), Ireland
   - Laura Ursella, National Institute of Oceanography and Experimental Geophysics (OGS), Italy
   - Federico Falcini, National Research Council of Italy (CNR), Italy
   - Antonio Guarnieri, National Institute of Geophysics and Volcanology (INGV), Italy
   - Lorinc Meszaros, Deltares, Netherlands
   - Øyvind Sætra, Norwegian Meteorological Institute (MET Norway), Norway
   - Helene Frigstad, Norwegian Institute for Water Research (NIVA), Norway
   - Francisco Campuzano, +ATLANTIC Colab, Portugal
   - Joaquín Tintoré and Baptiste Mourre, The Balearic Islands Coastal Ocean Observing and Forecasting
   - System (SOCIB), Spain
   - Marcos García Sotillo, Nologin, Spain

3. **Objectives:**

The EuroGOOS Coastal working group examines the entire value chain from coastal observations, satellite data, ocean forecasts and analysis, to products and services for coastal users. The working group also examines sustainability and fitness-for-purpose of the existing systems and identify future steps needed to secure and improve all elements of the coastal value chain. The working group started its work with a kick-off meeting in Brussels on 9 May 2018. The EuroGOOS Coastal Working Group collaborates with and builds upon significant initiatives already completed or underway that focus on coastal observing and modelling. These include, but are not limited to, the work of the

JERICO, FORCOAST, EDITO, LANDSEALOT, and particularly the FOCCUS EC projects, UN Ocean Decade Collaborative Centres and activities within EuroGOOS Working Groups, Task Teams, and the five Regional Operational Oceanographic Systems (ROOS). A key new priority for the Coastal Working Group is to investigate the role of key enabling technologies, such as AI, for enhancing coastal observing and modelling systems.

4. **Relevance to the EuroGOOS Strategy:**

- Define requirements and existing gaps for operational ocean observing, specifically in coastal zones;
- Support and enhance the sustainability of Coastal Ocean Observation Systems;
- Help unlock Data Sources of interest to EMODnet, SeaDatNet, CMEMS and other Copernicus services, Regional Seas organisations (such as OSPAR, HELCOM), and/or the EEA and WISE MARINE, among others;
- Evaluation of (operational) modelling forecast, data assimilation, and AI capabilities in Europe for Coastal Ocean Observation Systems;
- Promotion and co-production of oceanographic products and services across different European actors via involvement in projects (EC, Copernicus Marine, EEA, etc.).

5. **Key achievements in the reporting period (May 2024-April 2025):**

- Draft AI White Paper produced (https://docs.google.com/document/d/1DcihDWE_CeuXiFVUOowO3ScI8-9R8EhUbweCowcGkfo/edit?tab=t.0)

- Coastal WG acting as a focal point for the OceanPrediction DCC NE Atlantic Regional Team. (https://www.unoceanprediction.org/en/regional-team-north-east-atlantic)

- Updating the OceanPrediction DCC Atlas: as of April 2025, more than 130 institutions registered, and more than 100 forecasting systems have been added

- New survey launched to map the present day situation and gaps of ocean forecasting services and their applications. Survey is titled "Strengthening Ocean Forecasting Services and their Applications" (to be filled by 15th July 2025; https://forms.office.com/e/HBtwKSTV8Q)

- CMCC and Deltares from the Coastal WG launched the DCC-Coastal Resilience Partner Alliance Network with the DCC for Coastal Resilience:

“The DCC-CR Partner Alliance Network was officially ratified on February 3, 2025. This strategic collaboration marks a significant step toward strengthening global coastal resilience efforts. The UNESCO IOC initially approved the alliance in December 2024.”

- As part of the Partner Alliance Network, CMCC and Deltares collaborate with the DCC-CR on the organization of the Coastal Resilience Webinar series: https://centri.unibo.it/dcc-cr/en/events

- Forecasting and observing the open-to-coastal ocean for Copernicus users’ (FOCCUS) project launched the FOCCUS survey on documenting the current use of Copernicus products by coastal

forecasting centers, to guide the roadmap towards a future enhanced integration of the open ocean and coastal operational oceanography systems.

- Representing EuroGOOS Coastal Working Group perspective in the European Digital Twin Ocean through working group members participating in the EDITO-Model Lab project.

- Representing EuroGOOS Coastal Working Group perspective in observing networks of the land-sea interface through working group members participating in the LandSeaLot project.

- Participation in various high-level conferences and workshops.

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

- Lack of time due to different other commitments

- Lack of physical meetings

- Changing international landscape on coastal monitoring where the Coastal Working Group has to fit in (OceanPrediction DCC, CoastPredict, Coastal Resilience DCC)

- Personnel shortages within the EuroGOOS Office and changes in the Scientific Officers for the Coastal Working Group

7. **Main priority areas and other major activities (2025-2026):**

A number of priority Actions were identified during the last general assembly, in the context of a 3-year roadmap.

- Action 1: Data Sciences Submit
    - White paper in 2025
- Action 2: River Datasets
    - Update the EMODNET database via the involvement in the FOCCUS project.
- Action 3: Catalogue of Coastal Stories (systems and products) and gaps
    - Via the OceanPrediction DCC Atlas
- Action 4: Users
    - Document End-user requirements, based on this action and the work of ForCOAST, including the methodology used to engage and exchange with users.
- Action 5: Characterise EOV Accuracy/Precision Requirements
    - In link with WMO RRR Oceanic Application Area
- Action 6: International Capacity Building
    - Document international framework of grants, training, and capacity building opportunities in General in relation with operational coastal science. Focus on the Global South.
- Action 7: Citizen Science/low cost sensors/…
- Action 8: Coordination + Connections within EuroGOOS and beyond (international collaboration)

Other major activities (2025-2026):

- Continued involvement in EC projects FOCCUS and EDITO-Model Lab
- Active Collaboration with DCC OceanPrediction and Coastal Resilience

- Submission of a proposal, potentially Horizon Europe

8. Meetings during the reporting period (May 2024-April 2025):

- **28 May 2024**, online: Data Science/AI Task meeting. Contributing members.
- **3 Dec 2024**, online: Data Science/AI Task meeting. Contributing members.
- **November 2024**, presential (Paris): side meeting on funding opportunities during the OceanPredict Symposium. Some members.
- **March 2025**, presential (Palma), side meeting on funding opportunities during the FOCCUS & EDITO-Model Lab GA. Some members.
- **1 Apr 2025**, online: Data Science/AI Task meeting. Contributing members.
- **Several other online meetings in 2024-2025:** CWG chair meetings, and meeting with the EuroGOOS Office, ad-hoc meetings within the framework of the FOCCUS, EDITO-Model Lab, and LandSeaLot projects

9. Next planned meetings (2025-2026):

- Mainly online meetings for CWG general meetings and specific task meetings, such as White paper discussion
- Attendance to other Working Group meetings (based on invitation or interest)
- Physical meeting of some partners during conferences (e.g. ICES, UN Ocean Conference, OceanPredict, etc.)
- EuroGOOS General Assembly 2026 attended by the CWG chairs

10. Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:

- Report on potential new sources of coastal data (DMEQWG),
- Report on users and TRL requirements for coastal services (TPWG),
- Report status and improvements needed to fill gaps in operational modelling (SAWG).

11. Links and synergies with non-EuroGOOS initiatives:

- CMEMS coastal zone extension (project FOCCUS)
- EMODNET (River data)
- International communities and earth observation initiatives (EuroGEO) and other GEO initiatives (GEO Aquawatch, GEO Blue planet, GEO BON).
- contribution to the UN decade of the Ocean CoastPredict initiative
- Coast-related RIs (DANUBIUS, JERICO-RI)
- OceanPrediction DCC
- Coastal Resilience DCC

12. Additional information

13. Suggestions

Status Report for the EuroGOOS General Assembly 2025 (DataMEQ Working Group)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Thierry Carval, Ifremer

Support: Dominique Obaton, Ifremer

2. **List of current members, affiliation and country EuroGOOS Regional System representatives:**

BOOS and NOOS

- Fiona Carse, **The Meteorological Office** (UK Met Office), United Kingdom
- Johana Linders, **Swedish Meteorological and Hydrological Institute** (SMHI), Sweden
- Kate Collingridge, **Centre for Environment, Fisheries and Aquaculture Science** (Cefas), United Kingdom
- Susanne Tamm, **Federal Maritime and Hydrographic Agency** (BSH), Germany

IBI ROOS

- Julien Mader, **Fundación AZTI**, Spain
- Marta de Alfonso, **Puertos Del Estado**, Spain

MonGOOS

- Leonidas Perivoliotis, **Hellenic Centre for Marine Research** (HCMR), Greece

Arctic ROOS

- Vidar Lien, Arnfinn Morvik, Sjur Ringheim Lid, **Institute of Marine Research** (IMR), Norway

Black Sea representative:

- Veselka Marinova, **Bulgarian Academy of Science** (IOBAS), Bulgaria

EuroGOOS Task Team representatives:

Tide Gauge

- Andy Matthews, **National Oceanographic Centre** (NOC), UK
- Begoña Perez, **Puertos del Estado**, Spain

FerryBox

- Elizaveta Protsenko, **Norwegian Institute for Water Research** (NIVA), Norway
- Gisbert Breitbach, **Helmholtz-Zentrum Geesthacht**, Germany
- Jukka Seppala, Sebastian Ehrhart, **Finnish Environment Institute** (SYKE), Finland
- Sebastian Ehrhart, **Finnish Environment Institute** (SYKE), Finland

Glider

- Victor Turpin, **Ocean-OPS**, France

HF Radar

- Julien Mader, **AZTI**, Spain

Fixed Platforms

- Andrew Conway, **Marine Institute** (MI), Ireland

Argo

- Thierry Carval, **French Research Institute for Exploitation of the Sea** (Ifremer), France

Other programme representatives:

Gosud/OceanSITES/CMEMS INSTAC

- Thierry Carval, Stéphane Tarot, Dominique Obaton, **French Research Institute for Exploitation of the Sea** (Ifremer), France

RTQC Biology (CMEMS INSTAC, JERICO)

- Kai Sorensen, **NIVA**, Norway
- Virginie Racapé, **Pokapok**, France

SeaDataNet

- Dick Schaap and Peter Thijsse, **Marine Information Service** (MARIS), Netherlands
- Simona Simoncelli, Claudia Fratianni, **National Institute of Geophysics and Volcanology** (INGV), Italy

EMODnet (Physics, Ingestion, Chemistry)

- Alessandra Giorgetti, **National Institute of Oceanography and Experimental Geophysics** (OGS), Italy
- Antonio Novellino, **Deda Group**, Italy
- Patrick Gorringe, **SMHI**, Sweden

Balearic Islands Coastal Observing and Forecasting System (SOCIB)

- Joaquín Tintoré, Juan Gabriel Fernández, Miguel Charcos Llorens, Andrea Casaucao, **Balearic Islands Coastal Ocean Observing and Forecasting System** (SOCIB), Spain

ICES

- Neil Holdsworth and Hjalte Parner, **International Council for the Exploration of the Sea** (ICES), Denmark

3. **Objectives:**
    - Develop an overall concept for the management of EuroGOOS observation data taking into consideration existing data management systems;
    - Identify observations required for either in real-time or in delayed mode data;
    - Propose the most effective ways to make observation data readily available for operational purposes;
    - Propose mechanisms to ease access to delayed mode observation data in cooperation with National Oceanographic Data Centres (NODCs), keeping aware of the progress in SeaDataNet;
    - Draft a minimum set of standards for data quality control which is related to observation data collection, processing and exchange procedures.

4. **Relevance to the EuroGOOS Strategy:**

EuroGOOS DATAMEQ WG helps improving harmonization and integration of European marine data. DATAMEQ WG works hand in hand with Copernicus Marine Service (CMEMS), SeaDataNet, EMODnet and JERICO. The working group fosters links between real-time and historical data streams and works closely with EuroGOOS Task Teams and ROOS.

5. **Key achievements in the reporting period (May 2024-April 2025):**

    - DataMEQ – WOD GTSPP – IQuOD – SOOP XBT Gosud joint meeting 2024-11-11/2024-11-15 Bologna
    - IODE-28 et IODC-3 conference Santa Marta, Colombia
    - DOORS Black Sea webinar 2025-04-03/ 2025-04-04
    - Contribution to AMRIT EU project (2024 – 2028)
    - Contribution to Copernicus Marine in situ

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

void

7. **Main priority areas and other major activities (2025-2026):**

- Develop a plan for UNESCO IODE ODIS - DataMEQ collaboration : Link our data systems to ODIS via STAC
- Link EuroGOOS data systems to WMO WIS2
- Scientific and data publication: push publishers to implement citation standards the DOIs of our observational networks
- RDA Complex citation working group: DataMEQ to participate and report on this activity. By properly managing PIDs with citation statements, aggregators like Copernicus and EMODnet can accurately credit data providers.
- Image annotation standards: iMagine deep species (Azores) annotated 250 000 images. Investigate the use of annotation standards
- Investigate how to record in OBIS the species detected by Imagin deep species (Azores)
- Investigate Galaxy projects citeability
- Identify from the meeting topics for SOP - Standard Operating Procedures for publication in the Ocean Best Practices System

8. **Meetings during the reporting period (May 2024-April 2025):**

DataMEQ meeting 2024-11-13 Bologna and several shorter online meetings

9. **Next planned meetings (2025-2026):**

Not yet planned

10. **Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:**

Data management SOPs for EuroGOOS task teams.

11. **Links and synergies with non-EuroGOOS initiatives:**

- Euro-Argo-One: cyber security, cloud native data services
- EOSC AMRIT: cloud data flows and EOOS dashboard
- EOSC ENVRI-Hub-Next (downstream data services for ERICs)
- EOSC FAIR-EASE (ENVRI), EOSC Blue-Cloud 2026: cloud VREs
- Copernicus Marine Data Store – MDS

Status Report for the EuroGOOS General Assembly 2025 (Ocean Literacy Working Group)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Co-Chair 1: Yolanda Koulouri, HCMR, Greece, yol72@hcmr.gr

Co-Chair 2: Angela Pomaro, CNR, Italy, Angela.pomaro@cnr.it

Co-Chair 3: Dina Eparkhina, EuroGOOS (ex officio), Dina.eparkhina@eurogoos.eu

2. **List of current members, affiliation and country**

The EuroGOOS Ocean Literacy Working Group brings together experts from 25 organizations in 11 countries and 4 organizations with a pan-European or global remit.

Pan-European/International

- Joint Centre for Oceanography and Marine Meteorology in situ Observations Programmes Support (OceanOPS) / Ocean Observers Working Group – Emanuela Rusciano
- Euro-Argo ERIC / Ocean Observers Working Group – Claire Gourcuff
- Mercator Ocean International – Gratianne Quade
- EuroGOOS UN Ocean Decade Action 'Scientists for Ocean Literacy' – Dina Eparkhina – Action Coordinator

Belgium

- Royal Belgian Institute of Natural Sciences (RBINS), Belgium – Kelle Moreau

Croatia

- Institute of Oceanography & Fisheries (IZOR), Croatia – Daria Ezgeta Balic

Greece

- Hellenic Centre for Marine Research (HCMR), Greece – Panayota (Yolanda) Koulouri

France

- French Research Institute for Exploitation of the Sea (Ifremer) – Lucie Cocquempot
- Sailing Hirondelle – Louise Ras

Ireland

- Irish Ocean Literacy Network, Ireland – Noirin Burke
- Marine Institute, Ireland – Rachael Brown

- Camden Education Trust, on behalf of Marine Institute, Ireland (Explorers Education programme) – Cushla Dromgool-Regan

Italy

- National Research Council (CNR), Italy – Angela Pomaro
- Euro-Mediterranean Center on Climate Change (CMCC), Italy – Paola Agostini (until 10 July 2024); Ottavia Carlon (July – December 2024)
- Institute for Environmental Protection and Research (ISPRA), Italy – Marta Mancazeichen, Marina Amori
- National Institute of Oceanography and Applied Geophysics (OGS), Italy – Donata Canu and Elisa Banchi
- National Institute of Geophysics and Volcanology (INGV), Italy – Marina Locritani

Norway

- Norwegian Institute for Water Research (NIVA), Norway – Louise Valestrand, Kai Sørensen, and Andrew King

Portugal

- +ATLANTIC CoLAB, Portugal – Tiago Garcia

Spain

- AZTI tecnalia, Spain – Carolina Alonso and Maria Calvo Uyarra
- Institute of Oceanography (IEO), Spain – Mari Carmen García, Pablo Lozano
- Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB), Spain – Llúcia Ribot, and Rosa Rodríguez

Sweden

- Swedish Institute for the Marine Environment – Kajsa Tönnesson

UK

- Met Office, United Kingdom – Ana Aguiar
- National Oceanography Centre (NOC), UK – Peter Ryde

3. Objectives:

- Upscale the national efforts in Europe and contribute to broader Ocean Literacy efforts globally, providing visibility and recognition of the Ocean Literacy activities by the EuroGOOS members and community, at national, European, and global levels;
- Raise awareness about the ocean observing and forecasting needs, challenges, and opportunities through public and policy engagement;
- Contribute to international Ocean Literacy in link with the UN Ocean Decade and its Ocean Literacy Framework and realise the EuroGOOS Ocean Decade project “Scientists for Ocean Literacy“;

- Join efforts in collaborative projects or initiatives and help foster international partnerships;
- Deliver an improved Ocean Literacy resources platform, expanding the existing EuroGOOS Ocean Literacy resource library.

4. Relevance to the EuroGOOS Strategy:

OLWG underpins all strategic objectives of EuroGOOS, specifically, the OLWG:

- Advances the communities of practice on ocean literacy and unites and enhances the work of marine scientists and oceanographers as ocean advocates to society (EuroGOOS Strategy Objective 1);
- Supports advocacy for support and coordination of European ocean observing and operational oceanography, connecting with other EuroGOOS WG and Task Teams (EuroGOOS Strategy Objective 2);
- Strengthens and expands partnerships, for example through the EU4Ocean coalition and EU projects such as DOORS, and collaborates regularly with UNESCO, in addition EuroGOOS Ocean Decade project Scientists for Ocean Literacy is an avenue to expand partnerships in Europe and globally (EuroGOOS Strategy Objective 3);
- Promotes sustainability in ocean observing and operational oceanography emphasizing them as key societal services, for example, through policy brief Ocean Literacy in European Oceanographic Agencies in the UN Decade of Ocean Science for Sustainable Development 2021-2030 (2021) (EuroGOOS Strategy Objective 4);
- Mobilizes the public on the importance of the ocean and ocean knowledge and services through events with adults and children implemented by the OLWG members and their joint efforts leveraged at pan-European and international levels (EuroGOOS Strategy Objective 5).

5. Key achievements in the reporting period (May 2024-April 2025):

- Report to EuroGOOS Board and General Assembly (GA) (May 2024, May 2025)
- Launch of the OLWG survey on ocean literacy in European oceanographic agencies (May 2024)
- Attendance at the global Ocean Literacy conference (UNESCO, Venice) (June 2024)
- Submission of OLWG chapter in the upcoming three-book series *Ocean Literacy: The Foundation for the Success of the Ocean Decade* (to be published by Springer Nature, launch at UNOC-3)
- Presentation of preliminary results of the OLWG survey at the EMSEA Conference (September 2024)
- OLWG forum on best practices and the design of a training programme for scientists to engage in ocean literacy (through the EU4Ocean project, Brussels) (8-9 October 2024)
- Completion of the OLWG survey by various European oceanographic agencies (initially by August and final completion by October 2024) – finalisation of the analysis ongoing
- Poster presentation at the Ocean Predict Symposium (November 2024)
- Design and development of a paper with the results of the OLWG survey - ongoing
- Successful submission of abstract for presentation at the One Ocean Science Congress in Nice (poster)

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

Some members are not responsive.

7. **Main priority areas and other major activities (2025-2026):**

- Develop and submit the paper on the results of the OLWG survey
- Develop, organize, and run a training for scientists to engage in OL (through the EU4Ocean project)
- Develop, organise, and run a training for ECOPs on FAIR data and promotion of science (EU4Ocean)
- Support EuroGOOS in co-organization of EMSEA Conference 2025 (September 2025)
- Report to EuroGOOS Board and GA as required
- Report to IOC on the Scientists for Ocean Literacy project as required

8. **Meetings during the reporting period (May 2024-April 2025):**

Several shorter (below 1 hour) and longer (2 hours) meetings depending on the agenda items, throughout the year. One two-day in-person meeting funded by EU4Ocean project.

9. **Next planned meetings (2025-2026):**

Online meetings will be held approximately quarterly.

10. **Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:**

OLWG members engaged within their organisations with experts from other EuroGOOS groups. This allowed informing each other of the EuroGOOS activities and raising the visibility of EuroGOOS within these organisations.

11. **Links and synergies with non-EuroGOOS initiatives:**

Close links exist with UNESCO IOC (several activities co-organised in the past), European Commission's EU4Ocean, DOORS Black Sea project (establishment of the DOORS OL Network), European Marine Science Educators Association, ECOPs Programme, DIP Network for ocean observing.

12. **Additional information:** NA

13. **Suggestions:**

OLWG calls on the EuroGOOS Members to nominate their ocean literacy experts to the group.

As suggested in the last GA report, OLWG would like to see an easy to find page and a simple URL address for its general public-oriented activities on the new EuroGOOS website – notably the OL resources page: https://eurogoos.eu/ocean-literacy-resources/

Status Report for the EuroGOOS General Assembly 2025 (Technology Plan Working Group)

Reporting period: May 2024-April 2025

1. **Co-Chairs (Name and affiliation) and email**

Rajesh Nair – OGS, rnair@ogs.it
Laurent Delauney, laurent.delauney@ifremer.fr

2. **List of current members, affiliation and country**

- Rajesh Nair (OGS, Italy)
- Laurent Delauney (Ifremer, France),
- Stefania Sparnocchia (ISMAR-CNR, Italy)
- Henning Wehde (IMR, Norway)
- Urmas Lips (TalTech, Estonia)
- Mery Pina, European Marine Biological Resource Centre (EMBRC), Europe
- Manuel Sala Perez (EuroGOOS, Belgium)

3. **Objectives:**

1) Improve in-house collaboration to deal with identified technical issues relating to specified EuroGOOS mission goals from the perspective of instrumentation, methodologies and Best Practices through better coordination between relevant areas of expertise.

2) Carry forward the Technology Forum initiative of the European Ocean Observing System (EOOS) aimed at promoting synergies within, and between, the public and private sectors to drive development and innovation in the field of ocean observing technologies in Europe.

4. **Relevance to the EuroGOOS Strategy:**

- Objective #1 ("Stimulate communities of practice") of the EuroGOOS 2030 strategy brief: the maintenance and expansion of the European communities of practice to respond to user requirements and service delivery, integrating advancements in ocean observing and forecasting; contribute to the enhancement of the international ocean best practices system and boost synergies across all sectors of Oceanography.

- Objective #3 ("Strengthen and expand partnerships") of the EuroGOOS 2030 strategy brief: identify partnerships as the paramount means for achieving common objectives and gaining the European added value in the co-production of user-focused, fit-for-purpose oceanographic services and information.

5. **Key achievements in the reporting period (May 2024-April 2025):**

- The 2024 EOOS Technology Forum “Catching the momentum in ocean observing technology: optimising value and data provision” took place on the 13 March 2024 at the Oceanology International conference in London.

- The final report on the 2024 edition of the EOOS Technology Forum is ready to be published (TBC)

6. **Bottlenecks or obstacles during the reporting period (May 2024-April 2025):**

- Linking with Industry and Services, as both technology providers and users (partly addressed through the EOOS Technology Forum event).

- Finding ways to ensure greater community participation in activities by improving the transversal actions of the TPWG in EuroGOOS.

- Difficulties to determine TPWG ambassadors in ROOSes, TTs and WGs.

- Ensuring funding for activities, especially for supporting the EOOS Technology Forum as a regular, openly accessible, international marine observing technology event.

7. **Main priority areas and other major activities (2025-2026):**

1) Improve in-house collaboration to deal with identified technical issues relating to specified EuroGOOS mission goals from the perspective of instrumentation, methodologies and Best Practices through better coordination between relevant areas of expertise.

2) Carry forward the Technology Forum initiative of the European Ocean Observing System (EOOS) aimed at promoting synergies within, and between, the public and private sectors to drive development and innovation in the field of ocean observing technologies in Europe.

8. **Meetings during the reporting period (May 2024-April 2025):**

- EuroGOOS General Assembly 2024.

9. **Next planned meetings (2025-2026):**

TBD

10. **Links and synergies with other EuroGOOS ROOS/Working Groups/Task Teams:**

- Interaction and dialogue with all Working Groups and Task Teams on overlapping themes and shared topics of interest.

- TPWG Ambassadors in ROOSes, TTs and WGs should be reactivated.

11. **Links and synergies with non-EuroGOOS initiatives:**

- EOOS Technology Forum (EOOS Pilot 3.4.1).

- MINKE, JERICO-S3 and JERICO-DS are finished... The TPWG should link to other technological EU projects like e.g. George, Landsealot, AMRIT?

- Link to EU RIs should be reinforced (EMSO, ICOS, EMBRC, Danubius, etc.)

12. Additional information:

- ESONET yellow pages reactivation should be an objective of the TPWG, funding must be found. EMSO and JERICO could be contacted to do so. The objective is to promote EU marine technology at EU and Global level, by offering a showcase to companies in this field.

13. Suggestions

May be the TPWG should reinforce the membership and the co-chairing with new blood?