Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

Full title: Scientific Advisory Working Group

Co-Chair 1 (Name and affiliation) Jun She, DMI

Email js@dmi.dk

Co-Chair 2 (Name and affiliation) Lucie Cocquempot, Ifremer

Email Lucie.Cocquempot@lfremer.fr

Current members, affiliation and country

Alejandro Orfila, Uib-csic, Spain Antonio Bonaduce, NERSC; Norway Eric Jansen, CMCC; Italy George Petihakis, HCMR, Greece Ghada ElSerafy, Deltares; Netherlands Giovanni Civitarese, Inogs; Italy Helene Frigstad, NIVA, Norway Henning Wehde, IMR, Norway Inga Lips, Eurogoos; Belgium Jari Haapala, FMI; Finland Joanna Staneva, HEREON; Germany Julian Mader, AZTI; Spain Jun She, DMI, Denmark Laura Beranzoli, INGV; Italy Lucie Cocquempot, Ifremer; France Manuel Ruiz, IEO; Spain Marco Marcell, UNITUS; Italy Sara Morucci, Ispra; Italy Sebastien Legrand, RBINS; Belgium Steffen M. Olsen, DMI; Denamrk

Website http://www.eurogoos.eu

Objectives:

objectives are:

- i) Provide scientific advice to the EuroGOOS members in developing their national priorities, especially in expanding their service to coastal-estuary continuum, marine climate change, and ocean health services;
- ii) Help EuroGOOS develop integrated competences in the process of ROOS-TT-WG integration on scientific and technological aspects;
- iii) Identify main scientific priorities for the future implementation of EuroGOOS and ROOS

Relevance to the EuroGOOS Strategy:

i) Provide scientific advice to the EuroGOOS members in developing their national priorities, especially in expanding their service to coastal-estuary continuum, marine climate change, and ocean health services;

- ii) Help EuroGOOS develop integrated competences in the process of ROOS-TT-WG integration on scientific and technological aspects;
- iii) Identify main scientific priorities for the future implementation of EuroGOOS and ROOS strategies including EOOS, and especially in helping ROOSs, TTs and WGs with developing

Key achievements in the reporting period (May 2022-April 2023):

- 1. Defined thematic areas for implementing seamless earth systyem approach (SAWG white paper) in EuroGOOS
- 2. Form the writing groups of thematic areas of the white paper
- 3. New SAWG member George Petihakis, HCMR
- 4. Contribute to UNDOS DCC Kickoff meeting on behalf EuroGOOS
- 5. Helping EuroGOOS preparing the 10th EuroGOOS conference
- 6. Two SAWG presentations were submitted to the 10th EuroGOOS conference
- 7. Had meeting with NOOS to identify research priorities for NOOS

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

- White paper drafting is moving slow
- A wider input beyond SAWG members is needed but only had with NOOS (one way is to integrate with WGs, TTs and ROOSs)

Main priority areas (2023-2024):

- Draft of white paper on seamless earth system solution for EuroGOOS scientific strategy
- SAWG contribution to EuroGOOS integration: meetings with WGs and TTs
- make

Meetings during the reporting period (May 2022-April 2023):

SAWG face2face meeting 30 May, 2023, Brussels

SAWG meeting, 2 Feb. 2023

SAWG meeting, 17 Oct. 2022

SAWG meeting with NOOS, 21 Sep. 2022

SAWG meeting, 1 Sep. 2022

SAWG Co-Chairs meeting, 29 Aug. 2022

Meeting on the EuroGOOS support to SAWG: 19 July 2022

Reguler EuroGOOS Board and Chairs meetings

Next planned meetings (2023-2024):

Monthly/Quaterly SAWG meetings SAWG meetings with ROOS

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

SAWG meeting with ROOSs and WGs/TTs

Links and synergies with non-EuroGOOS initiatives:

SAWG involvement in UNDOS activities

Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

Full title: Ocean Literacy Working Group

Co-Chair 1 (Name and affiliation) Yolanda Koulouri, HCMR, Greece

Co-Chair 2 (Name and affiliation) Angela Pomaro, CNR, Italy

Co-Chair 3 (Name and affiliation) Dina Eparkhina (ex-officio)

Email dina.eparkhina@eurogoos.eu

Current members, affiliation and country

List of Members

Co-chairs

Angela Pomaro, National Research Council (CNR), Italy

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

Dina Eparkhina, EuroGOOS Office - ex officio co-chair as coordinator of EuroGOOS UN Ocean Decade Action 'Scientists for Ocean Literacy'

Members

Pan-European/International

EuroGOOS UN Ocean Decade Action 'Scientists for Ocean Literacy' - Dina Eparkhina - Action Coordinator

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

Italy

National Research Council (CNR), Italy - Angela Pomaro - Working Group Co-Chair

Euro-Mediterranean Center on Climate Change (CMCC), Italy - Paola Agostini

Institute for Environmental Protection and Research (ISPRA), Italy - Elena Giusta and Marta Mancazeichen

National Institute of Oceanography and Applied Geophysics (OGS), Italy - Donata Canu and Elisa

National Institute of Geophysics and Volcanology (INGV), Italy – Marina Locritani, Simona Simoncelli, and Antonio Guarnieri

Greece

Hellenic Centre for Marine Research (HCMR), Greece - Panayota (Yolanda) Koulouri - Working Group Co-Chair

Spain

AZTI tecnalia, Spain - Carolina Alonso and Maria Calvo Uyarra Institute of Oceanography (IEO), Spain - Mari Carmen García

Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB), Spain - Veronica Ortiz,

Llúcia Ribot, and Rosa Rodríguez

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

UK

Met Office, United Kingdom - Ana Aguiar

National Oceanography Centre (NOC), UK - Peter Ryde

Belgium

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

France

French Research Institute for Exploitation of the Sea (Ifremer) - Lucie Cocquempot

Sailing Hirondelle - Louise Ras

Norway

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

Sweden

Swedish Institute for the Marine Environment – Kajsa Tönnesson

Website

https://eurogoos.eu/ocean-literacy-wg/

Objectives:

The EuroGOOS Ocean Literacy Working Group works to:

- 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.

The EuroGOOS Ocean Literacy Working Group brings together experts from 23 organizations; in 9 countries and 4 organizations with pan-European or global remit.

Relevance to the EuroGOOS Strategy:

OLWG underpins all strategic objectives of EuroGOOS:

- It advances the communities of practice on ocean literacy and unites and enhances the work of marine scientists and oceanographers as ocean advocates to society;
- It supports advocacy for support and coordination of European ocean observing and operational oceanography, connecting with other EuroGOOS WG and Task Teams and closely working with the Office;
- It 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;
- It 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);
- It 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.

Key achievements in the reporting period (May 2022-April 2023):

- Connections with EuroGOOS other WG and Task Teams have been established and several meetings held. This helped raise awareness about OLWG, look for synergies and connections, and evaluate the narratives of the EuroGOOS groups in terms of their societal contributions.
- Workshop at the European Maritime Day 2022 co-organized by EuroGOOS and UNESCO including the launch of the EuroGOOS Scientists for Ocean Literacy project of the Ocean Decade.
- Joint project with ILICO, France, to develop a series of images for children promoting the importance of ocean observations. Visually appealing images were co-developed by scientists and communicators and designed by EuroGOOS Office, to be printed as stickers or used on other supports. The messages say: 'I observe the ocean', 'I care for the ocean', 'I discover sea monsters', 'I preserve the ocean'. Available here:

https://bit.ly/44FvXDb

- DOORS OL Network was created on the example of the EuroGOOS OL Network (predecessor of the OLWG).
- Working plan is being elaborated with the EU4Ocean coalition (EuroGOOS has become official subcontractor in Dec 2022). 10K€ have been secured for OLWG.
- Presentation at the UN Ocean Conference 2022 official side event co-organized by the European Commission and UNESCO (Portugal, July).
- Presentation at the HCMR Marine and Inland Waters Research Symposium (Greece, September 2022).
- Presentation at the EuroGOOS FerryBox TT annual workshop (on-line, September 2022).
- Presentation at CommOCEAN international marine science communication conference (France, December 2022).
- New materials on the OL resources web page of EuroGOOS.

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

Lack of time for experts to commit to activities due to the overall lack of resources for ocean literacy. This obstacle is being addressed through more frequent (monthly) but shorter (1 hour) on-line meetings, which help OLWG members to be up-to-date and co-develop activities and ideas. Some external funding has been achieved through the DOORS and EU4Ocean projects, but these funds remain small to fulfill the objectives. More dedicated resources are needed to make the UN Ocean Decade project of EuroGOOS a reality.

Main priority areas (2023-2024):

- Finalize the work plan in the EU4Ocean coalition contract (in progress with coordinator Acteon);
- Report on Scientists for Ocean Literacy Decade project to UNESCO (May 2023);
- Finalize and launch the second survey on the OL activities in European ocean science institutes (members of EuroGOOS and beyond);
- Deliver a training prepared by OLWG to help scientists engage in ocean literacy work;
- Consult and collaborate with the DOORS project which is building an OL network for the Black Sea.

Other major activities (2023-2024):

- Expand the offer of OL resources on the web page https://eurogoos.eu/ocean-literacy-resources/; Present the achievements and work of OLWG and EuroGOOS in societal and policy mobilization at relevant events;
- Develop synergies with relevant EU initiatives and projects managed/led by EuroGOOS members, e.g. GES4SEAS led by AZTI.

Meetings during the reporting period (May 2022-April 2023):

- Regular on-line meetings, which are monthly since January 2023.

Next planned meetings (2023-2024):

- Continue monthly meetings;
- Possibly, a physical meeting back to back with the Conference (October 2023).

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

OLWG members met with experts involved in other EuroGOOS groups in their organizations and discussed possible synergies and connections. Narratives on the societal relevance of several groups were agreed through this meetings (further to the EuroGOOS integration workshop action 2022), which will help EuroGOOS Office in communication. Several OLWG members also sit on other EuroGOOS groups (SAWG, DataMEQ, FerryBox TT, Argo TT).

Links and synergies with non-EuroGOOS initiatives:

Close links and synergies with UNESCO, EU4Ocean Coalition, EU project DOORS.

Suggestions:

With the revamp of the EuroGOOS website, we would like to see that the OL resources of EuroGOOS members are easily findable on it. The OL on-line library has been very well received and used and will benefit from more visibility and time effort to display more materials. Ideally, such resource page should be available from the homepage as its targets are not scientists or managers but general public and educators https://eurogoos.eu/ocean-literacy-resources/.

Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

Full title: DataMEQ working group

Co-Chair 1 (Name and affiliation)Thierry Carval, Ifremer

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Current members, affiliation and country

Alesandra Giorgetti, OGS, Italy Andrew Matthews, NOC, United Kingdom Antonio Novellino, ETT solutions, Italy Arnfinn Morvik, IMR, Norway Begona Pérez, Puertos del Estado, Spain Miguel Charcos Llorens, SOCIB, Spain Dick Schaap, Maris, Netherland Dominique Obaton, Ifremer, France Fiona Carse, Metoffice, United Kingdom gisbert breitbach, Hereon, Germany Helge Sagen, IMR, Norway Hialte Parner, ICES, Denmark Joaquin Tintore, SOCIB, Spain Johanne Linders, SMHI, Sweden Juan Gabriel Fernandez, SOCIB, Spain Julien Mader, AZTI, Spain Kai Sorensen, NIVA, Norway Kate Collingridge, CEFAS, United Kingdom Leonidas Perivoliotis, HCMR, Greece Marta De Alfonso, Puertos del Estado, Spain Neil Holdsworth, ICES, Denmark Patrick Gorringe, SMHI, Sweden Peter Thijsse, Maris, Netherland Pierre Testor, Sorbonne Université, France Simona Simoncelli, INGV, Italy Sjur Ringheim Lid, IMR, Norway Stephane Tarot, Ifremer, France Susanne Tamm, BSH, Germany Thierry Carval, Ifremer, France Veselka Marinova, IO-BAS, Bulgary Vicente Fernandez, EuroGOOS, Belgium Vidar Lien, IMR, Norway Virginie Racape, POKaPOK, France Henning Wehde, IMR, Norway

Website

https://eurogoos.eu/data-management-exchange-quality-working-group-data-meq

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.

Relevance to the EuroGOOS Strategy:

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

Key achievements in the reporting period (May 2022-April 2023):

Enhancing FAIR in situ data delivery: EuroGOOS recommendations for the Ocean Decade

- . Develop FAIR machine2machine metadata and data services to facilitate the development of integrated services including Digital Twin of the Ocean
- . Support data providers in setting up such services close to the acquisition
- . Support open data policy on core Essential Ocean Variables (EOV) for Operational Oceanography
- . Extend the common vocabularies and standards to more EOVs (physical, biogeochemical, biological)
- . Develop cross network quality assessment procedures and FAIR documentation on the core EOV to facilitate reusability

Term of Reference for EuroGOOS data policy roadmap

. DataMEQ WG is preparing a EuroGOOS data policy which will require the EuroGOOS members commitment to share core ocean data openly according to the FAIR principles and CC-BY licence.

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

No specific bottleneck

Retirement of Sylvie Pouliguen, former DataMEQ chair person

Main priority areas (2023-2024):

- . Adoption of the data policy by each EuroGOOS member
- . Improve citation and credits to data providers through DOI FAIR best practices (Digital Object Identifier)

Other major activities (2023-2024):

Contribute to EuroGOOS conference

Presentation of EuroGOOS data policy in International Ocean Data conference, Paris, April 2023

Meetings during the reporting period (May 2022-April 2023):

13 October 2022 EuroGOOS data policy preparation meeting

7 February 2023 EuroGOOS data policy draft

20 March 2023 Presentation of EuroGOOS data policy in International Ocean Data conference

20 March 2023 EuroGOOS DataMEQ meeting in Paris, April 2023

30 May 2023 EuroGOOS data policy presentation to the board

Next planned meetings (2023-2024):

3-5 October 2023 EuroGOOS conference

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

OceanGlider NetCDF format implementation
HF-Radar NetCDF format improvment (compression, global attributes)

Links and synergies with non-EuroGOOS initiatives:

Contribution to ENVRI-FAIR EU project: coordination of the Marine RIs fairness improvement (D9.8), RI sustainability roadmap (D9.10)

Contribution to Eurosea data handbook (D3.13)

Contribution to Copernicus Marine in situ NetCDF CF 1.8 format

Suggestions:

DataMEQ WG should be represented in RDA - Research Data Alliance



Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

Full title: Biological Observation Working Group

Co-Chair 1 (Name and affiliation) Nicolas Pade, EMBRC-EIRC

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Co-Chair 2 (Name and affiliation) Vera Fonseca, CEFAS

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Current members, affiliation and country

Veronique Creach, Centre for Environment, Fisheries and Aquaculture Science (Cefas), United Kingdom

Jun She, Danish Meteorological Institute (DMI), Denmark

Lucie Cocquempot, French Research Institute for Exploitation of the Sea (Ifremer), France

Costas Frangoulis, Hellenic Centre for Marine Research (HCMR), Greece

Pier Luigi Buttigieg, Helmholtz-Zentrum für Ozeanforschung Kiel (GEOMAR), Germany

Ioulia Santi, European Marine Biological Resource Centre (EMBRC), France Lionel Guidi, French National Centre for Scientific Research (CNRS), France

Daniele Iudicone, Anton Dohrn Zoological Station (SZN), Italy

Susan Evans, National Oceanographic Centre (NOC), United Kingdom

Julia Uitz, French National Centre for Scientific Research (CNRS), France

Hans H Jakobsen, Aarhus University (AU), Denmark

Iveta Jurgensone, Latvian Institute of Aquatic Ecology (LHEI), Latvia

Andreja Ramšak, National Institute of Biology (NIB), Slovenia

Klaas Deneudt, Flemish Marine Institute (FMI) Belgium

Sirje Sildever, Tallinn University of Technology (TalTech), Estonia

Isabella Buttino, Italian National Institute for Environmental Protection and Research (ISPRA), Italy

Nina Dzhembekova, Institute of Oceanology (BAS), Bulgaria

Bengt Karlson, Swedish Meteorological and Hydrological Institute (SMHI), Sweden

Kaisa Kraft, Finnish Environment Institute (SYKE), Finland

Francis O'Beirn, Marine Institute (MI), Ireland

Silvana Neves, Oceanic Platform of the Canary Islands (PLOCAN), Spain

Maite Louzao, Fundación AZTI, Spain

Wenche Eikrem, Norwegian Institute for Water Research (NIVA), Norway

Naiara Rodriguez-Ezpeleta, Fundación AZTI, Spain

Martin Edwards, Plymouth Marine Laboratory (PML), United Kingdom

Antonio Cascella, National Institute of Geophysics and Volcanology (INGV), Italy

Klas Ove Moeller, Helmholtz-Zentrum Hereon (Hereon), Germany

Mauro Celussi, National Institute of Oceanography and Experimental Geophysics (OGS), Italy

Helena Hauss, Norwegian Research Centre (NORCE), Norway

Vera G Fonseca, Centre for Environment, Fisheries and Aquaculture Science (CEFAS), United Kingdom

Website https://eurogoos.eu/biological-observations-working-group/

Objectives:

- Agree on an initial set of SOPs (Standard Operating Procedure) and data standards for the observation of life via eDNA and multi-omics protocols.

- The standardisation and SOPs for Imaging and evaluating how these data may contribute the most effectively to EOVs (Essential Ocean Variable) and EBVs (Essential Biodiversity Variables).
- Formulate and implement recommendations for new sensors and autonomous platform development and integration with existing approaches.
- Continuously liaise with the Biological and Ecosystems EOV Panel (GOOS) and the EBV development groups (GEO BON) and seek the endorsement of SOPs by targeting these EVs.
- Frugal science approaches will be promoted as long-term funding for observation, which is very difficult to obtain, and thus a reduced cost would significantly improve our ability to maintain long-term, well-replicated observatories.
- Develop structured obsolescence and on-boarding process for all technologies, methods, and operational models.

Relevance to the EuroGOOS Strategy:

The key messages that the working group will convey and demonstrate are:

- 1. Ocean observation is only complete when it includes biological and ecological observation;
- 2. Biological observation needs standards and quality control which need to be adhered to;
- 3. Biological observation should be generating data that is FAIR and useful to stakeholders, concentrating on existing indicators and frameworks such as Essential Ocean Variables (EOVs) and Essential Biodiversity Variables (EBVs);
- 4. The integration of detailed biology into ongoing global and regional ocean modelling efforts is essential to understanding the oceans and human impact on their health and functioning;
- 5. There is a high and multifaceted value of biodiversity to both coastal and inland human society and economy.

Key achievements in the reporting period (May 2022-April 2023):

- The group has started collecting information on existing biological observatories (using genomics and/or imaging) and their protocols.
- Workshop to discuss how to present the information, in particular how to use the information in the planned documents in preparation by the WG
- Drafting started on Reports 1 & 2: Recommendations for use of molecular tools eDNA & genomics & Recommendations for the use of imaging technologies

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

- There is a serious issue of time availability of the WG members. So far the WG has only managed to meet once, and although the workshop was productive, the WG members are not available to work on the documents.
- The WG lost its previous co-chair due to burn-out. It has been very very difficult to find a new volunteer (related to the last bullet point on bottlenecks)
- Previously the WG enjoyed excellent support from the EuroGoos secretariat, to take care of disseminating information, carrying out votes (e.g. vice-chair election), updating mailing lists. This support has been missing for the past many months, and whereas this is not the reason the WG moving at a very slow pace, it is a contributing factor.
- The lack of dedicated people to carry this work forward means that it is difficult to move things forward at a faster pace. There is at the moment a general lack of capacity in research to carry out voluntary activities.

Main priority areas (2023-2024):

The WG will continue to work on the planned documents of best-practice and also a catalogue of methods and procedures.

Other major activities (2023-2024):

None are planned at this time

Meetings during the reporting period (May 2022-April 2023):

- Online meeting 23/06/2022
- Online meeting 15/11/2022
- Physical workshop (EMBRC HQ, Paris, France): 06-08/12/2022
- Online meeting for the preparation of Report 1 10/03/2023
- Online meeting for the preparation of Report 1 27/04/2023

Next planned meetings (2023-2024):

No meetings in the calendar at this time

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

Technology Plan WG & Gliders TT:

- alignment to EOV/EBVs, best practices
- Sensor development/input

Scientific Advisory WG:

- Added value of biological data to Marine Observation

Data Management, Exchange, and Quality WG:

- Integration of biological data, data management

Coastal WG:

- Sharing of protocols and integration of biological variables and data in coastal observation

FerryBox task team:

- Relevant biological observation protocols for FerryBox
- Cross-fertilisation meeting planned in the autumn with FerryBox, JERICO, & BIOWG

Suggestions:

More resources committed to the WGs from EuroGOOS secretariat. Any support the secretariat can provide will catalyse the WGs to move forward.

Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

EuroGOOS Technology Plan Working Group (TPWG) **Full title:**

Co-Chair 1 (Name and affiliation) Rajesh Nair (OGS, Italy)

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Co-Chair 2 (Name and affiliation) Laurent Delauney (Ifremer, France)

laurent.delaunev@ifremer.fr **Email**

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), Vicente Fernandez (EuroGOOS, Belgium).

Website https://eurogoos.eu/technology-plan-working-group-tpwg/

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.

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.

Key achievements in the reporting period (May 2022-April 2023):

- Publication of the final report on the 2022 edition of the EOOS Technology Forum.

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

- Finding ways to ensure greater community participation in activities.
- Finding ways to ensure greater geographic and gender representation within the membership.
- Linking with Industry and Services, as both technology providers and users (partly addressed through the EOOS Technology Forum event).
- Ensuring funding for activities, especially for supporting the EOOS Technology Forum as a regular, openly accessible, international marine observing technology event.
- Difficulties to determine TPWG ambassadors in ROOSes.



Main priority areas (2023-2024):

- 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.

Other major activities (2023-2024):

- First contact and interaction with the Biological Observation Working Group on potential for joint integration actions.

Meetings during the reporting period (May 2022-April 2023):

- EuroGOOS 2nd Integration Workshop 2022.
- EuroGOOS General Assembly 2022.

Next planned meetings (2023-2024):

TBD.

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.

Links and synergies with non-EuroGOOS initiatives:

- MINKE, JERICO-S3, EuroSea, EMSO, JPI, IOC-UNESCO Ocean Best Practices System, European Metrology Network (EMN) for Climate and Ocean Observation.
- EOOS Technology Forum (EOOS Pilot 3.4.1).

Reporting period: May 2022-April 2023

EuroGOOS body: Working Group

Full title: Coastal WG

Co-Chair 1 (Name and affiliation) Ghada El Serafy (Deltares, Netherlands)

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Co-Chair 2 (Name and affiliation) Anna Rubio (AZTI, Spain)

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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

Georg Umgiesser, National Research Council of Italy (CNR), Italy

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

Website https://eurogoos.eu/coastal-wg/

Objectives:

The EuroGOOS Coastal working group will examine the entire value chain from coastal observations, satellite data, ocean forecasts and analysis, to products and services for coastal users. The working group will examine sustainability and fitness for purpose of the existing system 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 will build upon significant initiatives already completed or underway that have focused on coastal observing. These include, but are not limited to, the work of the JERICO and JERICO-NEXT EC projects, activities within EuroGOOS working groups, task teams, and the five regional operational oceanographic systems (ROOS). A key early priority for the Coastal Working



Group will be to document the existing and planned activity and provide a status of the coastal observing system at the present time.

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, INSTAC, SeaDatNet, CMEMS and other Copernicus services, Regional Seas organizations (such as OSPAR, HELCOM), and/or the EEA and WISE MARINE, among others:
- Evaluation of (operational) modeling forecast and data assimilation capabilities in Europe;
- Promotion and co-production of oceanographic products and Services across different European actors.

Key achievements in the reporting period (May 2022-April 2023):

- Whitepaper on "EuroGOOS Roadmap for (Operational) Coastal (Downstream) Services", submitted to Frontiers of Marine Science (May 2023)
- Coastal WG acting as a focal point for the OceanPrediction DCC NE Atlantic Regional Team meeting
- FORCOAST project successfully completed

Bottlenecks or obstacles during the reporting period (May 2022-April 2023):

- Lack of time due to different other commitments

Meetings during the reporting period (May 2022-April 2023):

- 2 virtual and 1 physical meeting

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

Report on potential new sources of coastal data (DMEQ WG), report on users and TRL requirements for coastal services (TP WG), report status and improvements needed to fill gaps in operational modelling (SA WG).

Links and synergies with non-EuroGOOS initiatives:

CMEMS & CLMS for coastal zone product, EMODNET, involvement in international communities and earth observation initiatives (EuroGEOSS) and other GEO initiatives (GEO Aquawatch, GEO Blue planet, GEO BON) through working group members, contribution to the UN decade of the Ocean Coastpredict initiative, coast related RIs (DANUBIOUS, JERICO-RI, etc.).