

Executive Board of Directors Report

Holger Brix

EuroGOOS General Assembly
19-21 May 2025

The Board Members

[EuroGOOS](#) > Executive Directors Board

Executive Directors Board

The Executive Directors Board is appointed by the General Assembly and includes the following members:



Holger Brix
Chair, Helmholtz-Zentrum
Hereon, Germany



Ghada El Serafy
Vice-Chair, Deltares,
Netherlands



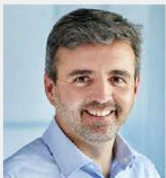
Branko Cermelj
Member, National Institute of
Biology, Slovenia



Lucie Cocquempot
Member, Ifremer, France



Giovanni Coppini
Member, CMCC, Italy



Julien Mader
Member, AZTI, Spain



Sebastien Legrand
Member, RBINS, Belgium

The Board Organization and Meetings

Since the last General Assembly (May 2024)

- Regular monthly meetings (online) plus more as needed for specific topics (17)
- Dedicated Board and Office meetings (3)
- Board and Chairs meetings (2)
- Meetings for Interviews SG (5)
- Meetings with Members (2)

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- 29 meetings in total

The Board Topics

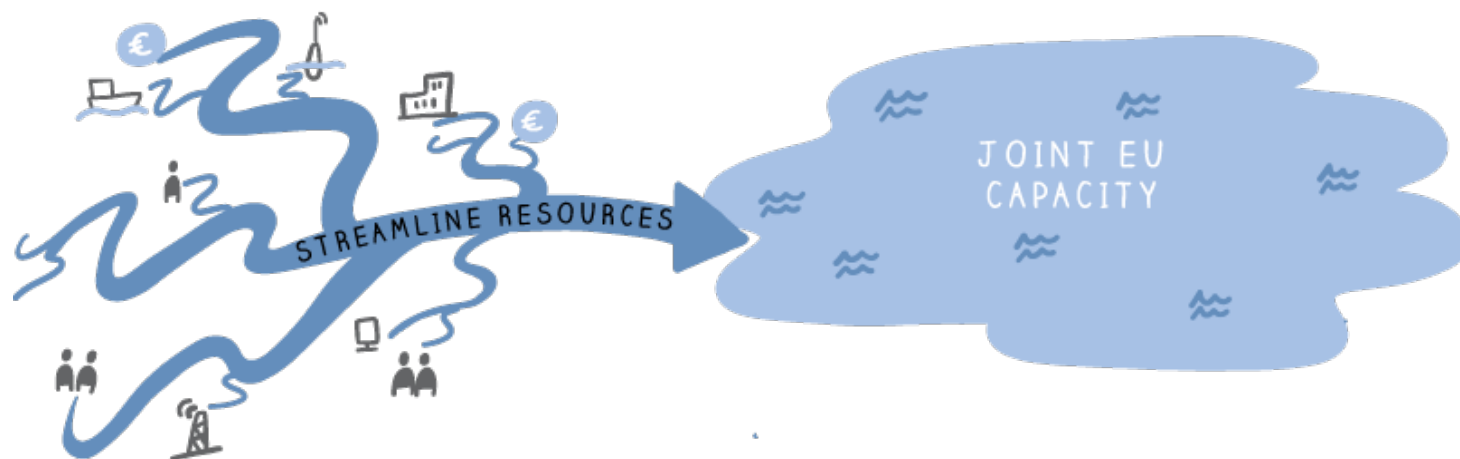
- Strategy overhaul (mid-point of the EuroGOOS Strategy 2030)
 - Changing European Landscape (DG Mare, GOOS, role of GRAs, etc.)
 - Brainstorming session Wednesday, 11:20
- Task Teams and Working Groups Evaluation
 - Evaluation of ToRs
 - How timely and relevant, connections in the landscape and with other WGs/TTs
 - Conversations with Chairs
 - Results in session Tuesday, 13:45

The Board Topics

- Integration Activities
 - How to better integrate TTs/WGs/ROOSes
 - How to interact with members and stakeholders
 - How to enhance impact
 - Open space session Tuesday, 15:35
- EOOS
 - EOOS role in the European landscape
 - EOOS role vs. EuroGOOS role
 - Changes in steering group composition
 - DG Mare's ideas and how EOOS can fulfil those
 - Brainstorming session Wednesday, 09:00

The Board Topics

- Collaboration with UN Ocean Decade activities
 - EuroGOOS presence at UNOC3
- EuroGOOS finances
 - Q&A Wednesday, 15:50
- Working structure and environment (Board, Office, SG)
 - Internal processes
 - Workload
 - Temporary organization after Inga's departure
- New Secretary General selection
 - Report and discussion Wednesday, 15:15



EuroGOOS Annual General Assembly Meeting

19-21 May 2025

Office Report

1
STIMULATE
communities of practice.

2
ADVOCATE
for coordinated and integrated
European ocean observing and
operational oceanography.

3
STRENGTHEN
and expand partnerships.

4
PROMOTE
sustainability across the
value chain of operational
oceanography and ocean
observing.

5
MOBILISE
the public on the
importance of the ocean
and oceanographic services.

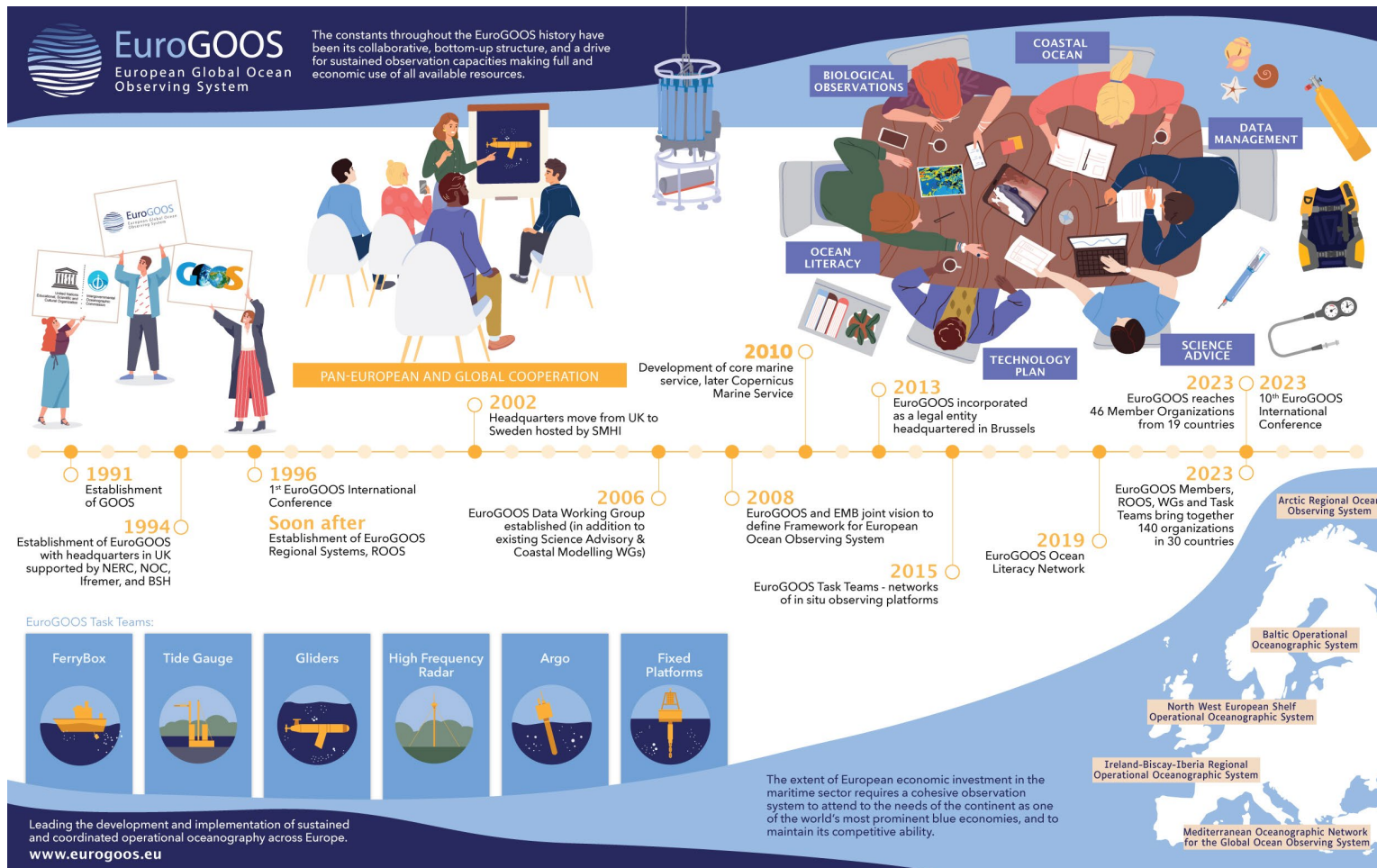
- Strategy informs EuroGOOS positions on EU Ocean Pact & UNOC-3
- Board review of Task Teams/Working Groups ToRs - focus on alignment with Strategy objectives
- Mid-term Strategy evaluation planned - GA Helsinki:
Discussion to initiate evaluation (21 May)



EuroGOOS
European Global Ocean
Observing System

EuroGOOS
Strategy 2030

EUROGOOS MEMBERS AND COMMUNITY



48
 members
 from **19**
 countries
140

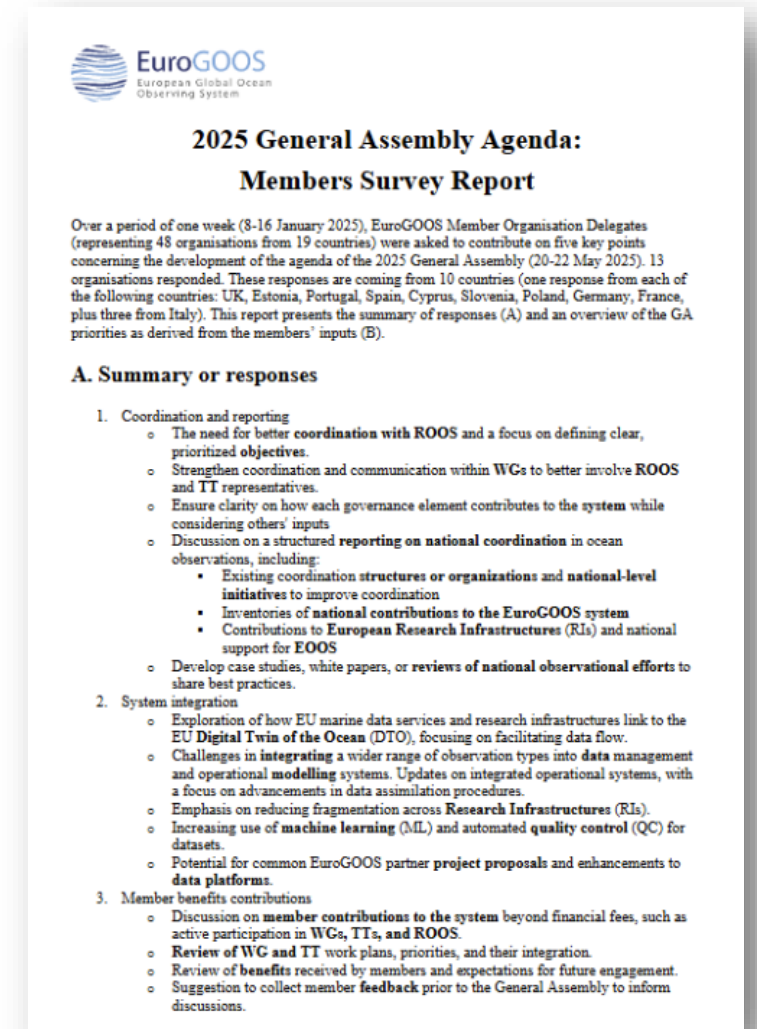
Including members
 of EuroGOOS WGs,
 Task Teams, and
 ROOS

https://eurogoos.eu/eurogoos_history/



INTEGRATION AMONG THE EUROGOOS ACTIVITIES

- Member survey conducted for GA Helsinki - top priority: EuroGOOS Integration (84.6% - 13 orgs, 10 countries)
- Focus: alignment across WGs, TTs, ROOSs, e.g., through:
 - Regular, targeted meetings between WGs, TTs, and ROOSs;
 - Networking and cross-regional collaboration opportunities;
 - Clearer articulation of each group's contributions within the broader system
 - Data/system integration - Interoperability with RIs & DTO; AI/ML, data assimilation, QC
- GA Helsinki: Dedicated brainstorming (20 May, Open Space on EuroGOOS Integration)



EUROPEAN MARINE SCIENCE-POLICY INTERACTIONS

EuroGOOS position on the EU Ocean Pact – towards a stronger science-policy interface and informed decisions for economy and all users

- EuroGOOS response to EU Ocean Pact (Feb 2025)
- Emphasis: policy coherence & unified ocean policy framework
- Marine knowledge + sustained observations = key for policy success
- Three priority areas:
 - Observations: Prioritise infrastructure via EOOS; coastal focus; recognise as blue economy sector
 - Data: Integrated, FAIR marine data ecosystem; align efforts; boost partnerships (including citizen science)
 - Ocean Literacy: Education in oceanography/data; engage public, policymakers, industry



- EOOS Steering Group response to EU Ocean Pact consultation (Feb 2025): Ocean Observations Initiative, Coordination across Member States, long-term investment in infrastructure/operations
- Meeting with DGs MARE, RTD, ENV, DEFIS (April 2025): EOOS evolution, Ocean Observations Initiative
- EOOS Steering Group response to MFF consultation (May 2025): EOOS coordination support, EU funding for global/pan-European networks (50% of global observing US-funded)
- New CINEA call (submission 2 June): EuroGOOS leads a consortium based on Members and EOOS SG originations' expressions of interest
- EOOS SG interim chairing by Vice-Chair – EMB Director; EuroGOOS represented by Vice-Chair Ghada El Serafy
- JPI Oceans national charts on ocean observing and monitoring for Greece & Germany (Nov 2024): 6 levels charted – political, legal, operational obs and monitoring, EOVs, data storage, data provision

References:

- National charts DE and GR: <https://www.eoos-ocean.eu/approach/governance/resource-forum/>
- EOOS SG response to Ocean Pact: <https://www.eoos-ocean.eu/news/eoos-responds-to-the-european-oceans-pact-call-for-evidence/>
- EOOS SG response to MFF consultation: <https://www.eoos-ocean.eu/news/eoos-steering-group-submits-key-recommendations-to-2025-mff-consultation/>

UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT 2021-2030

- EuroGOOS endorsed as UN Ocean Decade Implementing Partner (DIP) in early 2024
- DIP work plan co-designed with members at May 2024 GA (see GA report); approved by Board in Autumn 2024
- EuroGOOS Office reports annually to IOC and meets every two months with the Decade Coordination Office for Ocean Observing (DCO-OO)
- Updates on the next steps in the next talk (see Agenda)



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development



EuroGOOS
European Global Ocean
Observing System



<https://oceandecade.org/>

INTERNATIONAL COOPERATION

- IOC & GOOS: IOC (Group 1), IODE (International Ocean Data Conferences via the DataMEQ WG), OBPS (DataMEQ, Scientists4OL), GOOS (GRA Council and Forum)
- Arctic Coordination: support to Arctic Ocean Regional Alliance (ArORA) - ArORA Task Team endorsed by GOOS and SAON
- UN Ocean Decade : Decade Implementing Partner (DIP), lead of Decade project, and contributor to multiple programmes
- Advisory involvement: various initiatives (see Office report annex)





UNITED NATIONS OCEAN CONFERENCE NICE, FRANCE 2025

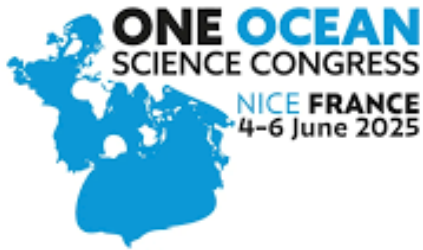


Programme still evolving...

- Input to the consultation on the development of the UNOC3 thematic panels (August 2024)
 - Input to the consultation on the Nice Action Plan, the outcome document of UNOC3 (November 2024)
 - Application for EU Digital Pavilion (December 2024)
 - EuroGOOS Voluntary Commitment to UNOC3 (February 2025)
 - Advance coordination of ocean observations
 - Promote FAIR data and EuroGOOS Data Policy
 - Expand public engagement through the Scientists for Ocean Literacy Action
 - Support Europe's Digital Twin Ocean with sustained observational data
- European Digital Ocean Pavilion
 - 9 June 15:00: EOOS-organised session on Ocean Pact and Observations
 - 10 June 15:00: Ghada El Serafy on OceanPrediction DCC
 - 12 June 10:30: Holger Brix in Ocean & Climate session
 - 13 June 10:30: Lucie Cocquempot in Coastal Challenges session
 - Ocean Decade Forum

<https://sdgs.un.org/partnerships/eurogoos-voluntary-commitment-strengthening-ocean-observing-data-integration-and-ocean>

<https://www.digitaloceanpavilion.eu/>



One Ocean Science Congress – the scientific component of UNOC3 – both abstracts submitted by Office accepted (presentations by the Board) along with a submission under BioEcoOcean (presentation by the Office)

- Oral presentation (Theme 10 – T10-2):
Enhancing ocean observing infrastructures: Integrated approach to open data, innovation, and science-policy engagement for sustainable ocean futures (Ghada El Serafy)
- Poster presentation (Theme 1 – T1-6):
Empowering sustainable development through Ocean Literacy: the UN Ocean Decade Scientists for Ocean Literacy project by EuroGOOS (Lucie Cocquempot)
- Poster presentation (Theme 10 – T10-21):
Blueprint for Integrated Ocean Science (BIOS): Advancing Harmonized Observation Systems and Policy Coordination for Sustainable Ecosystem Management (Deniz Karaca Halén)

EuroGOOS Working Groups

Science Advisory Working Group

- ❖ Supported 2 Webinars: Low-cost tech / AI & Machine learning in OO
- ❖ Support to white paper on low-cost technologies and engagement with BOOS AI WG, Arctic ROOS and CWG for next steps (e.g launch of a journal special issue on the topic)
- ❖ Support the development of a new SAWG work plan
- ❖ Group meeting monthly on average

- ❖ EOOS Technology Forum 2024 report released (May 2025)

Technology Plan Working Group

Biological Observations Working Group

- ❖ Supported the status paper developed by the group on *Recommendation for Implementation of Molecular and Imaging Technologies in Marine Observations*, the paper outlines a roadmap for harmonising methodologies, bolstering data infrastructures, and fostering cross-disciplinary partnerships to build a comprehensive, interoperable system for global marine biodiversity observation
- ❖ Supported the mapping of biological data streams across Europe for EOVS/EBV reporting

EuroGOOS Working Groups – Cont'd

Coastal Working Group

- ❖ Support for the group contribution to CoastPredict (UN Ocean Decade Programme) and the development of the Atlas built by OceanPrediction Decade Collaborative Centre (DCC)

- ❖ Co-authored submissions to the International Ocean Data Conference (IODC-III) *e.g. EuroGOOS Data Policy 2023 a contribution to FAIR data management in the Ocean Decade and beyond*
- ❖ Support for the hybrid meeting 13 Nov 2024, Bologna, with major data initiatives *e.g. CMEMS, EMODnet* to review the 2024 work plan and address key topics *e.g. data traceability, AI and cloud-native workflows*

Data Management, Exchange and Quality Working Group

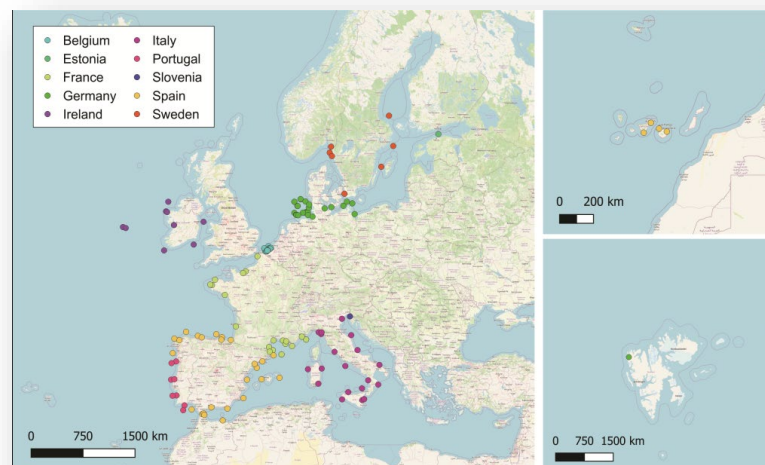
Ocean Literacy Working Group

- ❖ Co-developed a survey on OL initiatives across EuroGOOS members and broader scientific community. A scientific article is being prepared based on the results.
- ❖ Coordinate UN Ocean Decade project *Scientist for Ocean Literacy*
- ❖ Lead chapter in the upcoming Springer book *Ocean Literacy: The Foundation for the Success of the Ocean Decade—Volume I: Transforming Education, Research, and Engagement*, expected to be launched at UNOC-3 on 9–13 June 2025
- ❖ Co-organising EMSEA Conference 2025 dedicated to the European Ocean Literacy

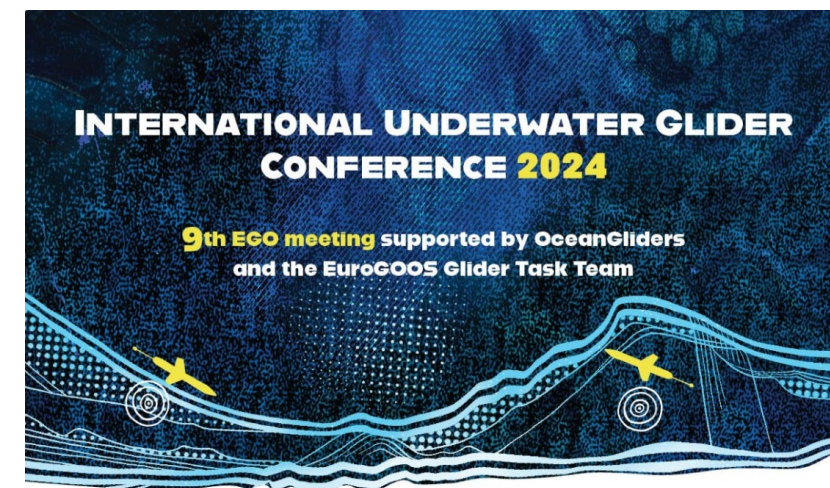
EuroGOOS Task Teams



- ❖ Support group activities such as networking and collaboration activities with existing or future Marine Ris
- ❖ Join HF Radar and FT TTs meeting in October 2025
- ❖ Office supported the group during the group progress meetings, such as ROW 2024 and online meetings



- ❖ Office continue to support the TT.
- ❖ Meetings for 2025 and the first half of 2026 have been scheduled every 3 months
- ❖ Join HF Radar and FT TTs meeting in October 2025



- ❖ Co-organised the European Glider Community side meeting (UGC 2024, Sweden)
- ❖ Support side event with key initiatives (EGO, GROOM RI, OceanGliders) and how they complement and support each other.

EuroGOOS Task Teams – Cont'd



- ❖ Office continues to support the group activities and the organisation of meetings and workshops such as FerryBox Workshop Helsinki



- ❖ Office continues to support the group activities, such as the Metadata Inventory/Portal WG set up at GLOOS Expert Group March 2025
- ❖ New members from Morocco



- ❖ Office continues supporting the group in facilitating interactions with institutions that are not yet part of Argo ERIC
- ❖ Next Argo TT meeting has been scheduled for June 2025

Regional Operational Oceanographic Systems (EuroGOOS ROOS)



- ❖ Supported webinar “AI: Showcases for Ocean and Sea Ice Applications in the Arctic” co-organised with the Arctic Regional Team of the OceanPrediction DCC
- ❖ Supported Organisation of Arctic ROOS GA 7-8 May 2025
- ❖ Conducted an AMRIT workshop at the 2025 GA

- ❖ BOOS Annual meeting 2-4 June 2025 in Sopot, Poland
- ❖ Organiser special session co-developed with DCO-OO on public-private partnerships for data & forecasting
- ❖ Conducted and AMRIT workshop at 2025 GA



BOOS GA 3 June – Special Session

- The Decade’s digital ocean ecosystem & the importance of public-private partnerships - Terence McConnel, DCO-OO
- Case Studies from the BOOS Community
- Discussion: Opportunities, Barriers, and Next Steps

(Pre-event survey to BOOS members; potential for a UN Decade case study, replicable in other basins)

Regional Operational Oceanographic Systems – Cont'd



NOOS

EuroGOOS North West European Shelf
Operational Oceanographic System

- ❖ Office supported the NOOS Annual meeting on 14-16 October 2024 in Copenhagen, hosted by DMI.
- ❖ The office conducted an AMRIT workshop
- ❖ Designing of the NOOS Strategy layout.



IBIROOS

EuroGOOS Ireland Biscay Iberia
Regional Operational Oceanographic System

- ❖ Office IBI ROOS meetings and will support the Annual Meeting in fall 2025
- ❖ The office will conduct an AMRIT workshop during the GA



MonGOOS

- ❖ Office supported the MonGOOS Annual Assembly on 1-3 October 2024 in Málaga, Spain.
- ❖ The office conducted an AMRIT workshop
- ❖ EGA April 2025 to elect a new chair, Baptiste Murre.

OVERVIEW OF PROJECTS JUNE 2024 – MAY 2025

Completed	Team	Ongoing	Team
Jerico S3	Inga, Vicente, Virginie, Joseph	EU4Ocean	Dina, Alicia
EEA COINS 3 rd service	Virginie, Inga	BlueCloud 2026	Deniz, Alicia
DOORS (till end May)	Dina	FOCCUS (Lump sum)	Deniz
		AMRIT (Lump sum)	Manuel, Alicia
		ObsSeaClim	Manuel, Alicia
		BioEcoOcean	Deniz, Alicia
		EEA COP-IDEA	Manuel

COMPLETED PROJECTS



1 February 2020 - 31 July 2024

Finalised two deliverables:

WP2: “Planned Joint International Activities” focused on the **interactions with non-European OOS** and JERICO to demonstrate the synergies, needs and achievements for continued collaboration around common issues of technological and societal concern.

WP9: “Common action plans with other RI initiatives and one with EOOS for the future” focuses on fostering cooperation and coordination with existing European RIs to foster interoperability and synergies for contributing to a comprehensive European RI service provision and implementing the EOOS.



COMPLETED PROJECTS



In Situ

European Environment Agency



3rd Service Contract: August 2023 – September 2024

EEA COINS (Copernicus Observations In Situ Networking and Sustainability)

3rd Service Contract

The **Office has engaged all EuroGOOS ROOSs** to contribute to the **inventory of historical *in situ* datasets** information for CMEMS reanalysis. For this, a questionnaire of historical (1950-2010) metadata information suited for assimilation and product validation of the time-prolonged CMEMS reanalysis products was prepared and distributed to the ROOS members. **All ROOS gain financially by contributing to this task.** All the obtained information is compiled into a report.

Our Member FMI (Laura Tuomi) has contributed to a deliverable: An **updated version of the CIS2 database.**

COMPLETING PROJECT



June 2021 - May 2025

Implementation Black Sea SRIA, framework for Blue Economy, key programmes - System of Systems, Blue Growth Accelerator, and Knowledge Transfer and Training

WP8 Lead - Stakeholder Engagement and Legacy

- Lead Black Sea Stakeholder Requirements Report (D8.3, January 2025)
- Presentation at the high-level event at the European Parliament, hosted by EP Vice-President (March 2025)
- Chair of DOORS Ocean Literacy Network, coordinator of national workshops in Bulgaria, Romania, Türkiye, Moldova, Ukraine, Georgia (February-March 2025)
- Organiser of FAIR data training (April 2025) – available on LifeWatch ERIC's training platform
- Presentation at the Final Stakeholder Conference and co-organisation of stakeholder workshops (May 2025)
- Visibility at pan-EU events (EMD, EU Ocean Days, etc)



EU4Ocean -CINEA tender

December 2022 – November 2025

Flagship European Union initiative to improve citizen's awareness of the importance of the ocean and promote co-design of solutions

WP4 - EU4Ocean coalition – thematic focus and results

WP5 - Advocacy Campaigning and high visibility actions

WP6 - Robust, professional and independent communication

- Training for ECOPs to deliver and manage FAIR data prepared in partnership with VLIZ & Ocean Decade (September 2025)
- Training for scientists to engage in ocean literacy (October 2025)
- Participation in EU4Ocean showcases at European Ocean Days (March 2025)
- Communication support to the project



Calling all ocean scientists!

From Lab to Public: Ocean Literacy in Action

22–24 September 2025 | 10:00–12:00 CEST
Online | Open to early-career & mature scientists

Registration:



Organised by:  EuroGOOS
European Global Ocean Observing System

In support of:  #EU4Ocean
#Youth4Ocean
#EUBlueSchools 

Organised by:  EuroGOOS
European Global Ocean Observing System

In support of:  VLIZ  #EU4Ocean
#Youth4Ocean
#EUBlueSchools 

With special thanks to:  Flanders
State of the Art 

Strengthen your data skills!

**Marine Data for Sustainable
Development: FAIR, CARE, TRUST**

Training for ECOPs
21–24 October 2025 | 15:00–17:00 CEST

Free on-line training

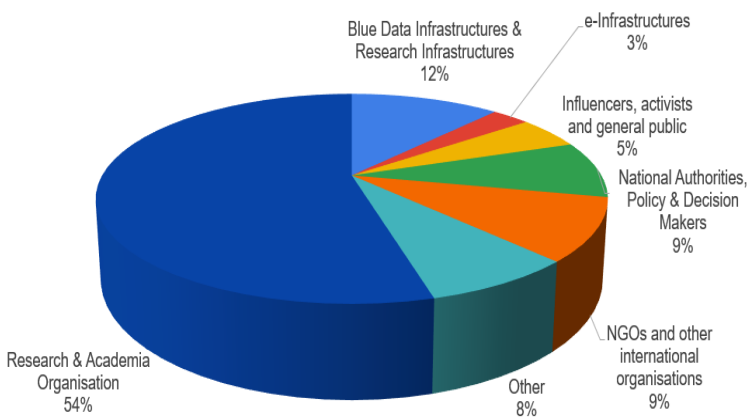
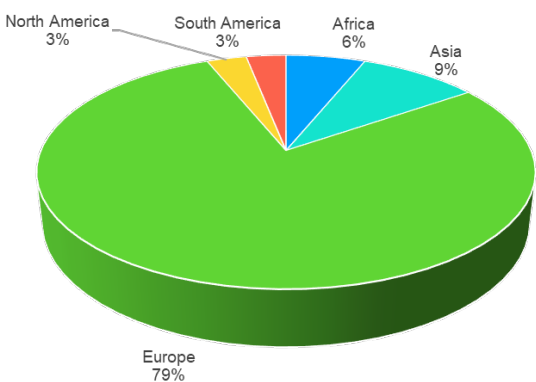
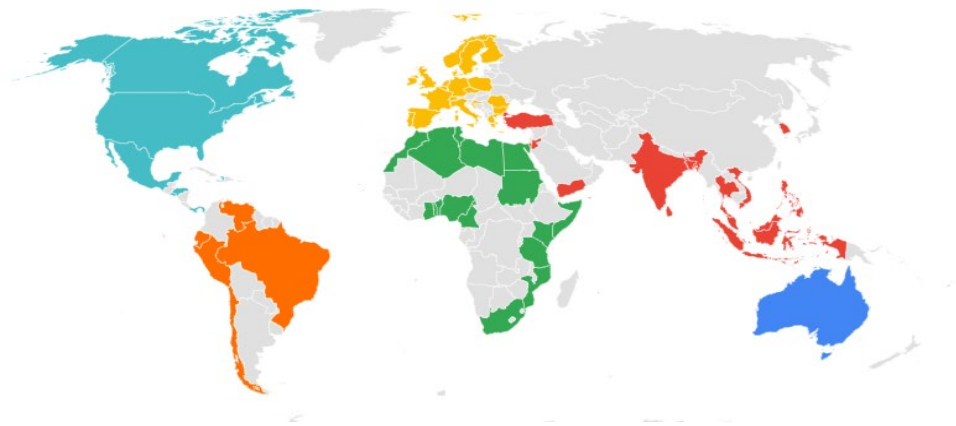


January 2023- June 2026

Evolution of its pilot ecosystem into a Federated European Ecosystem to deliver FAIR & Open data, analytical services, instrumental for deepening research of oceans, EU seas, coastal & inland waters.

EOSC for open web-based science, federated environmental RIs to improve & optimise services

- WP6: Training Academy:** Webinars on FAIR data principles:
- FAIR Data Principles 1: Foundational components, best practices and standards – September 2023
 - FAIR Data Principles 2: Making Marine Data FAIR: FAIR Assessment of Marine Data & Information – April 2024
 - FAIR Data Principles 3: Applying FAIR Principles across the ocean data value chain – November 2024





FOCCUS (Forecasting and observing the open-to-coastal ocean for Copernicus users)

January 2024 - December 2026 (lump sum project)

WP1 Coordination and WP10 stakeholder engagement – co-design of R&I activities

FOCCUS aims to design and demonstrate the feasibility of a platform for the integration of Copernicus Marine Service products with European coastal monitoring and forecasting systems developed at the national and local levels.

EuroGOOS office (together with the Coastal WG) leading a task on performing an Inventory of Member States operational coastal forecasting systems.



AMRIT (Advance Marine Research Infrastructures Together)

March 2024 – February 2028 (lump sum project)



AMRIT gathers marine ERICS, ESFRI landmarks and projects together to consolidate and harmonise the complex landscape of marine research infrastructures in Europe.

AMRIT will develop various operational tools and services, sustained in an **EOOS Technical Support Center** (EOOS TSC)

EuroGOOS role:

- **Stakeholder input to design of tools and services developed**, particularly through engagement of ROOSs.
- **Promoting uptake of AMRIT tools and services**, including through trainings developed with technical develops in the project.
- In October 2024, two workshops were organised to engage with the Mediterranean and North-West Shelf Regions observing communities, foster collaboration, and share ideas within EuroGOOS. Three remaining workshops are to be organised in Spring-early Summer 2025.



Ocean observations and indicators for climate and assessments

February 2024 - January 2028

Aims

- Improve sustained and multipurpose observations vital to European and global climate requirements,
- Deliver an improved observation framework based on EOV/ECVs and embedded in a Rolling Review of Requirements approach

WP6 - EuroGOOS role

Clustering of activities with other projects funded through the same call (BioEcoOcean and tbc BGC EOVS project), to form a 'European EOVS network', with the projects' legacy potentially sustained within the existing framework of EuroGOOS WGs.

EOVS ToR – physical, biogeochemical, biological EOVS

EuroGOOS organised the 1st Clustering Event

Stakeholder mapping activities are ongoing



Co-Creating Transformative Pathways to Biological and Ecosystem Ocean Observations



February 2024 - January 2028

Co-create a comprehensive, fit-for-purpose, and inclusive **Blueprint for Integrated Ocean Science (BIOS)** and improve the implementation and usage of EOVs for biology and ecosystems

WP6 Lead – impact monitoring and cross-domain integration for physical, bio-eco, biogeochemical EOVs

- GOOS BioEco Panel, CoPF, ToR EOVS Network, MBON Networking Fridays
- D 6.3 - Co-design and co-production of policy recommendations (Karaca et al., 2025)
- One Ocean Science 2025– “ Blueprint for Integrated Ocean Science (BIOS): Advancing Harmonized Observation Systems and Policy Coordination for Sustainable Ecosystem Management (Karaca et al., 2025)
- ICES 2025- “ From Fragmentation to Integration: A Blueprint for Coordinated Ocean Biodiversity Monitoring (Karaca et al., 2025)

EEA COP-IDEA – Copernicus in-situ data European alliance Specific Contract

February 2025 - June 2026

- Kick-off meeting on 4-6 March 2025
- Lead the Thematic Marine Domain and contribute to the ocean thematic area of the Copernicus In Situ Information System (CIS2).
- Provide visibility to marine in-situ data providers, including EuroGOOS and ROOS members, to Copernicus across domains (CIS2 database and country reports).
- Provide expertise to EEA as required to define key cross-cutting in situ data requirements for the Copernicus services.

EuroGOOS

Communication

Overview of Key Campaigns and Activities

Campaign 1: EuroGOOS Core & Ocean Literacy	Campaign 2: European projects & initiatives	Campaign 3: Members and stakeholders	EG and ROOS Websites
Core activities	AMRIT	Activities	Monthly office updates
Webinars	BioEcoOcean	Achievements	Social media
Regions	Blue-Cloud 2026	White papers	Events
WGs	DOORS	Events	Events
Task Teams	EU4Ocean	Good practices	Mailing
	ObsSea4Clim	Job positions	
	...	...	

Results and Key Performance Indicators

X	LinkedIn	Websites	Newsletter	BlueSky
6,831 followers ▼ 244	1,860 followers ▲ 580 more	64,000 new users ▲ 20,000	285 contacts ▲ 21	272 followers New!

It is the largest social network. Due to significant changes on the platform, EG created a profile on [BlueSky](#)

[LinkedIn](#) is now the main social content platform. During this period, a campaign of weekly updates has been created

EuroGOOS
Regions websites

- Arctic ROOS
- BOOS
- IBI ROOS
- NOOS
- MonGOOS

EOOS

Office monthly updates

Communication Channels and Tools

Visual and multimedia materials:

NOOS Strategy 2030, EOOS Technology Forum Report, EuroGOOS Webinars and Workshops, EuroGOOS Weekly updates, UN Ocean Decade Newsletter, EOOS Governance, Arctic GRA, EMD workshops, EG Website illustrations, EU projects templates, EuroGO-SHIP Research Infrastructure Workshop, NOOS Xmas card

Events and conferences:

European Maritime Day 2024 and 2025 (Stand and workshops)

UN Ocean Decade 2024

Ocean Predict Symposium Poster (Scientists for Ocean Literacy)

Ocean Days in Brussels 2025 (Stand)

One Ocean Conference Poster 2025

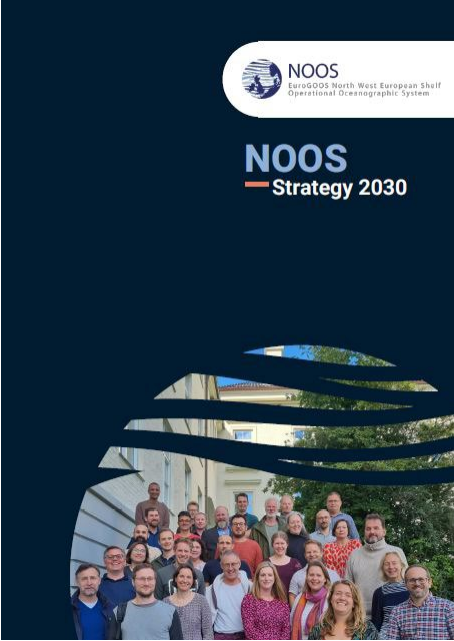
Poster at the 2024 AAORIA Forum Facilitating Atlantic collaboration across ocean observing value change

ICES 2025 Poster

Communication Channels and Tools

Visual and multimedia materials:

Publications:



NOOS

Strategy 2030



Chair's FOREWORD

The unveiling of the **NOOS 2030 Strategy** marks a decisive moment in the history of operational oceanography in North-Western continental Shelf seas (NWS). For the first time since 2002, the NOOS community has carried out a global reflection and dared to redefine its role and ambition in a continuously more centralised European Ocean Observing landscape, where a select few exert considerable influence.

We recognize the merits of pan-European initiatives such as EMOdnet, CMEMS, EDITO, and JERICO-RI, and applaud the dedication of numerous NOOS members who contribute individually. Nevertheless, we acknowledge the gradual shift that has diminished the prominence of EuroGOOS regions – including NOOS – within these initiatives, even as we continue our unwavering commitment to their success. We call upon the EuroGOOS Board to heed this shift as they shape the future.

Looking ahead, we are resolute in our commitment to an inclusive approach, a cornerstone that has defined NOOS since its inception. Amidst a proliferation of networks, working groups and task teams, NOOS remains the singular network that unites government agencies, research centres, and universities from the nine countries bordering the NWS. Together, we form a cohesive unit, uniting key national agencies and institutes to gather observations, run models, generate forecasts, services, and information that drive industries, inform the public, and empower end users.

NOOS – Strategy 2030

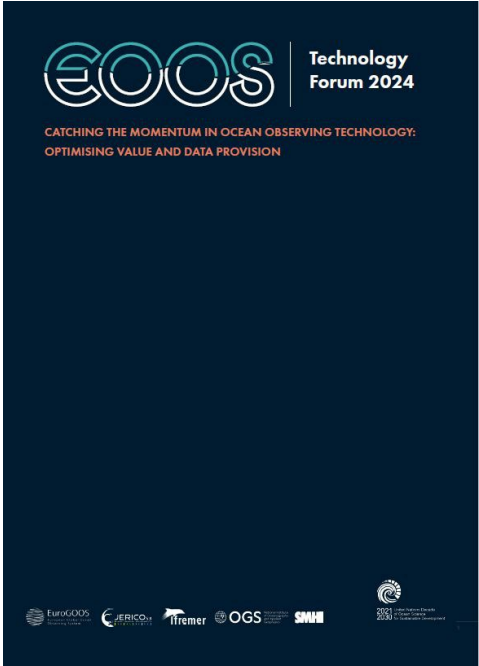
Working groups are established and closed down as appropriate, following a work plan laid out primarily by the group leader but always up for debate. A working group may be permanent, with the aim of establishing a sustained service or aimed at knowledge development. It may be temporary, with fixed goals to be obtained and closing down when those are achieved, or in sleeping mode, waiting for resources to be allocated.

NOOS is organised to have an annual meeting, including a workshop, a progress report presentation by each working group (usually presented by the group leader), and a formal business meeting. In connection with the meeting, each partnering institute is encouraged to work out a small report of

the accomplishments during the year that was. The material is published through the NOOS website, noos.eurogoos.eu. The annual meeting is open to any number of delegates from member institutes, within manageable bounds. Institutes take turns hosting meetings. In recent years (2020) online or hybrid meetings have become more feasible and are widely used by the working groups.

NOOS appoints a **Steering Group** to deliver and stimulate the implementation of a NOOS strategy, to support its members in taking actions, and to represent NOOS in a number of networks. NOOS has established ambassadors, who form a link between NOOS and EuroGOOS working groups.

20
members
from
9
countries



Communication Channels and Tools

Visual and multimedia materials:

Weekly updates:



EuroGOOS
European Global Ocean
Observing System

This week's highlights:

EuroGOOS is hiring, we're heading to **European Maritime Day** with a stand and a workshop, launched the UNOC Commitment, Arctic ROOS held its GA with the AMRIT Workshop, we published The Ocean is my home in Romanian, and much more!





EuroGOOS
European Global Ocean
Observing System

Job opportunity

EuroGOOS is seeking its next **Secretary General.**

Lead coordination of Europe's operational oceanographic and ocean observing community!

Webinars and workshops:



EuroGOOS
European Global Ocean
Observing System

WEBINAR - EUROGOOS MEMBERS' SERIES

Artificial Intelligence & Machine Learning in Operational Oceanography

Organised by EuroGOOS Science Advisory Working Group

7 February 2025 • 09:00-12:00 CET

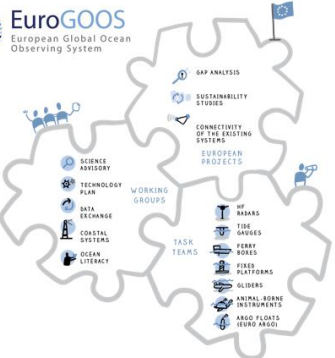


Communication Channels and Tools

Visual and multimedia materials:

Posters:

EuroGO-SHIP Research Infrastructure Workshop
Institute for Marine Sciences (CNR-ISMAR), Venice Italy
27 June 2024



ABOUT EuroGOOS

EuroGOOS is an association of national governmental agencies, research organizations, and private companies, committed to oceanography within the context of the intergovernmental Global Ocean Observing System (GOOS).

EuroGOOS is one of the UNESCO-IOC Global Ocean Observing System regions. Founded in 1994, EuroGOOS has today 46 members from 19 European countries providing operational oceanographic services and carrying out marine research. EuroGOOS is registered as an international non-profit association under the Belgian law and its headquarters are in Brussels.

EuroGOOS goals are to identify strategies, cooperate, co-produce, and promote the operational oceanography value for society. EuroGOOS is achieving this through a broad network of organizations and initiatives operating at various levels. Collectively through EuroGOOS, its members and partners improve the overall European capacity and competitiveness in ocean observing sectors.

In 2013 EuroGOOS was incorporated as a legal entity, an international non-profit association (association internationale sans but lucratif/AISBL) under Belgian law with the headquarters relocated to Brussels in January of that year. Part of the rationale for the incorporation of EuroGOOS as an AISBL was to increase efficiency and to improve representation of its members to the European Commission, and other international bodies, as the deed of incorporation empowers the association to represent its members' interests to third parties. The establishment as an AISBL also permitted EuroGOOS to make more binding commitments to schemes, programmes, and policies, which had proved difficult as an informal "club," and in repositioning the organisation in Brussels kept EuroGOOS close to the heart of much of the policy and decision-making which pertains to its operations.



EuroGOOS
European Global Ocean Observing System

Facilitating Atlantic collaboration across ocean observing value chain

EuroGOOS - European contribution to the Global Ocean Observing System

Atlantic Global Ocean Observing System Regional Alliances (IRAs) include EuroGOOS, the US Integrated Ocean Observing System (IOOS), the Canadian Integrated Ocean Observing System (CIOOS), the Regional Alliance for the Upper Southwest and Tropical Atlantic (RASCAL-AN), IOCARIBE-GOOS (Caribbean), and GOOS Africa. EuroGOOS is uniting operational oceanography communities in Europe to improve the quality and cost effectiveness in the production of ocean observing services at national, regional and global levels and to enhance and sustain the observing network, forecasting systems and the development of end-user products.

EuroGOOS, since its creation in 1994 as a **Regional Alliance of the Global Ocean Observing System (GOOS)**, has been facilitating collaboration across the value chain of ocean observations, carrying out various activities within the Atlantic Ocean.

Atlantic collaboration across our regions

EuroGOOS supports five **Regional Operational Oceanographic Systems (ROOS)** in Europe: **Arctic ROOS**, **BOOS**, **IBI ROOS**, **MonROOS** and **NOOS**. The ROOS coordinate and support development and joint service production in European maritime regions. The ROOS feed marine data to pan-European portals (like EMODnet and Copernicus Marine Service) **bringing tangible added value to European cooperation**. Working hand in hand, EuroGOOS members, ROOS, and other EuroGOOS networks jointly enhance the European leadership in ocean observing, forecasting and services.

Arctic ROOS is an open forum for national agencies, research institutes, universities as well as commercial bodies to inform, share and develop an Arctic Ocean observing system. It integrates European oceanographic and sea ice monitoring activities in the Arctic, fosters the development of automatic real-time observations, enhances the development of information and data tools, and facilitates the open and unrestricted data sharing. Arctic ROOS seeks to coordinate activities with the Sustaining Arctic Observing Networks (SAON), the Global Ocean Observing System (GOOS), and other regional Arctic Ocean observing networks. EuroGOOS coordinates the International task team, endorsed by both GOOS and SAON, working on the development of an Arctic regional alliance.

BOOS (Barents Ocean Observing System) is an open forum for national agencies, research institutes, universities as well as commercial bodies to inform, share and develop a Barents Ocean observing system. It integrates European oceanographic and sea ice monitoring activities in the Barents Sea, fosters the development of automatic real-time observations, enhances the development of information and data tools, and facilitates the open and unrestricted data sharing. BOOS seeks to coordinate activities with the Sustaining Arctic Observing Networks (SAON), the Global Ocean Observing System (GOOS), and other regional Arctic Ocean observing networks. EuroGOOS coordinates the International task team, endorsed by both GOOS and SAON, working on the development of an Arctic regional alliance.

The North West European Shelf region seas include all the shallow seas from Norway, round the Shetland Isles, Scotland, Ireland, the South West UK, and to southern Brittany. This region consists of shallow seas forced by strong tides and winds. The sea area is amongst the busiest of the world, with intense marine traffic, and heavy loads of contaminants introduced by rivers. There is an increasing impact on the sea by highly developed fishing industries, as well as offshore and recreational activities. NOOS community provides analysis, forecasts, and model-based products describing the marine conditions.

IBIROOS joins operational oceanography organizations from the 5 countries bordering the Iberian Biscay/Inland maritime area (France, Ireland, Portugal, Spain and UK). It has achieved a **high level regional coordination in the development and implementation of ocean observing systems and marine services** (like early warning of harmful Algal Blooms, pollutant dispersion, search and rescue, larval dispersion, etc.) for the IBI ROOS area.

MonROOS (Mediterranean Regional Operational Oceanographic System) is an open forum for national agencies, research institutes, universities as well as commercial bodies to inform, share and develop a Mediterranean Ocean observing system. It integrates European oceanographic and sea ice monitoring activities in the Mediterranean, fosters the development of automatic real-time observations, enhances the development of information and data tools, and facilitates the open and unrestricted data sharing. MonROOS seeks to coordinate activities with the Sustaining Arctic Observing Networks (SAON), the Global Ocean Observing System (GOOS), and other regional Arctic Ocean observing networks. EuroGOOS coordinates the International task team, endorsed by both GOOS and SAON, working on the development of an Arctic regional alliance.

EuroGOOS Ocean Literacy Working Group

Ocean Literacy involves understanding the interplay between the ocean's impact on society and society's influence on the ocean. The EuroGOOS Ocean Literacy network aims to upscale the national efforts of the EuroGOOS members and contribute to broader Ocean Literacy efforts globally. One of the examples is the project **Scientists for Ocean Literacy** implemented within the UN Decade of Ocean Science for Sustainable Development 2021-2030.

SYMPOSIUM 24
ADVANCING OCEAN PREDICTION SCIENCE FOR SOCIETAL BENEFITS

EuroGOOS
European Global Ocean Observing System

Scientists for Ocean Literacy

Ocean Literacy is essential for the UN Ocean Decade and the implementation of Agenda 2030. It's not just about science communication—it's about multi-stakeholder engagement.

Ocean scientists need to be empowered to engage more effectively with the public. Yet, their engagement work often goes unrecognised in their careers. It's time to change that!

Empowering scientists as ocean advocates

Ocean Literacy is about transformation, not just information—it helps guide society and the economy toward sustainability. It can make science more inclusive and diverse. And it can help turn the ocean we have into the ocean we want.

Join us in making a difference

Support ocean literacy to empower scientists, engage communities, and drive the change we need. As a scientist, join public engagement efforts. As a science manager or funder, recognise the transformative power of ocean literacy in moving from ocean knowledge to ocean action.

Benefits to scientists to engage in Ocean Literacy

88% yes

Impact on your work: Improved communication skills, New insights on my research, Institutional recognition, Scientists' network expansion, Increased funding opportunities.

What impact? Interdisciplinary, positive, useful, simple, insights, communication, collaboration, research, professors, schools, time-consuming, experience, engage.

Benefits as a research scientist involved in Ocean Literacy

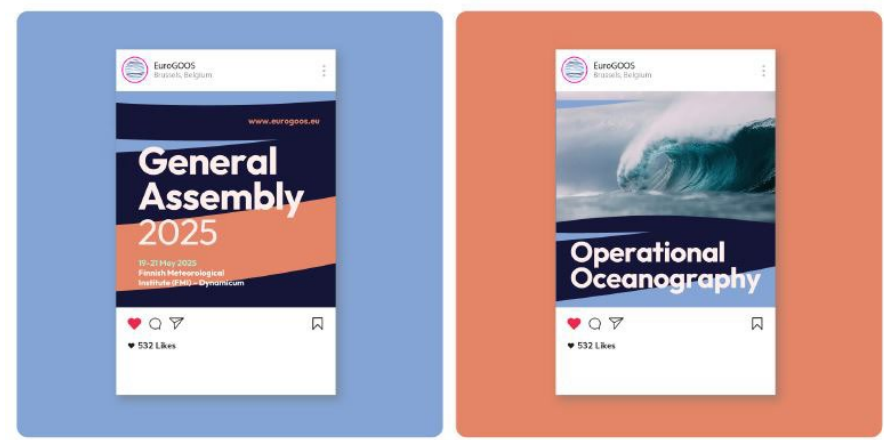
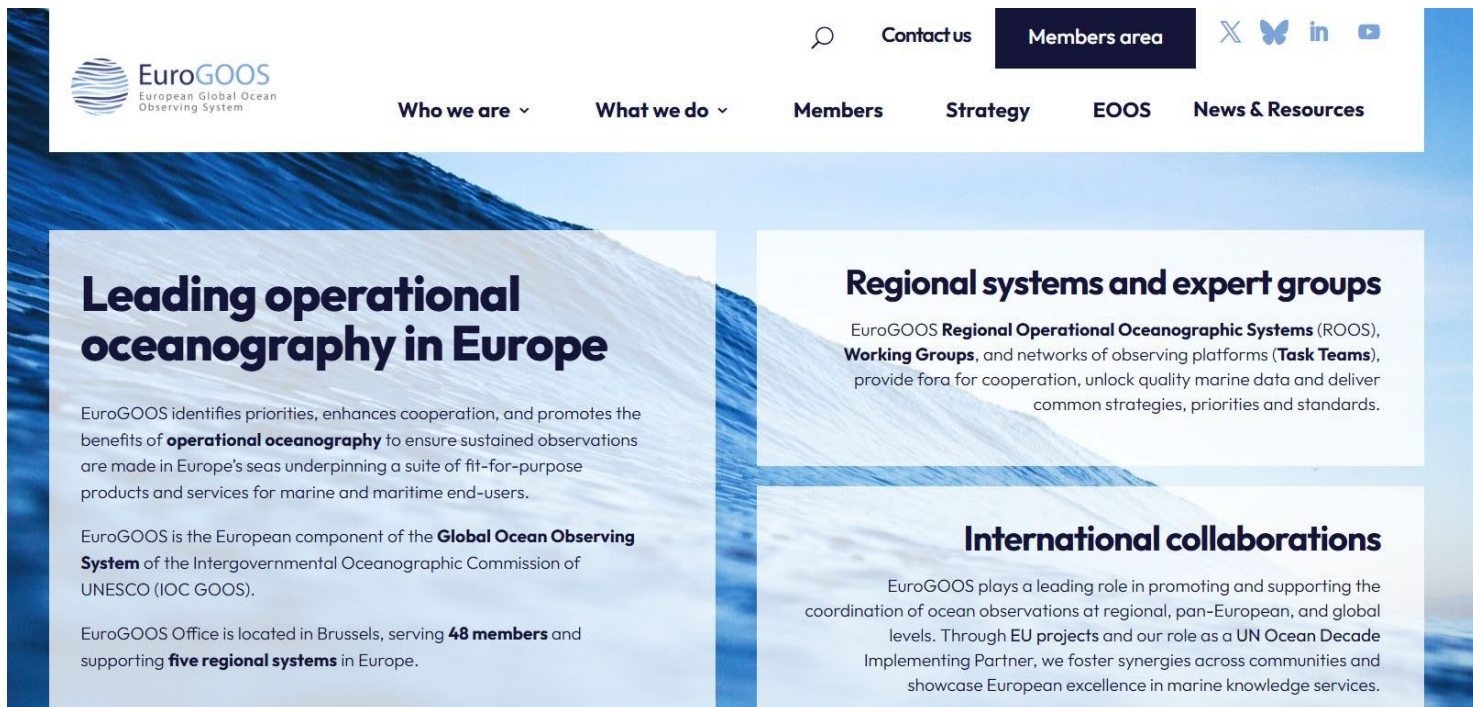
person, people, children, young, feedback, positive, lessons, knowledge, receptiveness, biodiversity, dissemination, interaction, science, funding, achievement, pupils, networking, literacy, research, professors, schools, time-consuming, experience, engage.

Scientists for Ocean Literacy is a UN Ocean Decade Action led by EuroGOOS and rolled out by the EuroGOOS Ocean Literacy Working Group

In partnership with:

Looking Ahead

- Website redesign
- Brand guidelines and comms material upgrade
- **Strengthen EuroGOOS visibility**



Upcoming events



Workshop

Ocean Observation – Foundation of Marine Knowledge

23 May · 15:00 – 16:15 | Clayton Hotel – Pegasus 1+2



Moderator

Urmas Lips

Professor
Tallinn University
of Technology



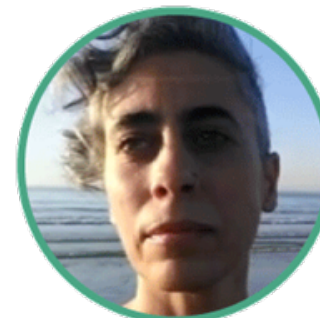
Rémy Dénos

Deputy Head
Maritime innovation,
Marine Knowledge and
Investment
DG MARE



Neil Holdsworth

Head of Data and
Information
ICES



Joana Beja

Senior Scientific
Data Officer
Flanders Marine
Institute (VLIZ)



Marina Tonani

Systems Expert
Mercator Ocean
International

11th EuroGOOS International Conference

18-20 May 26
Larnaca, Cyprus



EuroGOOS
European Global Ocean
Observing System



**CYPRUS
MARINE &
MARITIME
INSTITUTE**

OFFICE TEAM

All EuroGOOS Office staff are employed full-time, either through Belgian contracts or service contracts.

- Inga Lips – Secretary General (Apr 2020–Apr 2025)
- Dina Eparkhina – Senior Policy & Communications Officer (since Jun 2015)
- Joseph Nolan – Science Officer (Jul 2022–Jan 2025)
- Deniz Karaca – Science Officer (Aug 2022–Jul 2027)
- Manuel Sala Pérez – Policy Officer (Apr 2025–Mar 2029)
- Alicia Blanco – Communications Officer (since Jan 2022)
- Kathleen Hermans – Office & Financial Administrator (Jan 2024–Jan 2028)

<https://eurogoos.eu/secretariat/>

EXECUTIVE BOARD OF DIRECTORS

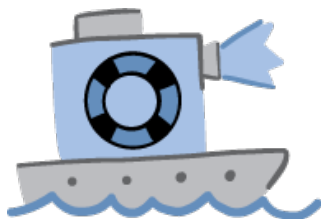
- Chair: Holger Brix (Hereon, Germany) - Board Member: 2019–2022, Vice-Chair: 2021–2024, Chair: 2024–2027
- Vice-Chair: Ghada El Serafy (Deltares, Netherlands) - Board Member: 2020–2023 (1st term), Vice-Chair: 2024–2027
- Lucie Cocquempot (Ifremer, France): Board Member: 2024–2027
- Branko Cermelj (NIB, Slovenia): Board Member: 2024–2027
- Giovanni Coppini (CMCC, Italy): Board Member: 2021–2024 (1st term), 2024–2027 (2nd term)
- Julien Mader (AZTI, Spain): Board Member: 2024–2027
- Sebastien Legrand (RBINS, Belgium): Board Member: 2024–2027

<https://eurogoos.eu/executive-directors-board/>



info@eurogoos.eu

www.eurogoos.eu



EuroGOOS: Decade Implementing Partner (DIP)

Dina Eparkhina
EuroGOOS General Assembly
20 May 2025



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development



EuroGOOS
European Global Ocean
Observing System



1
UNDERSTAND
AND BEAT MARINE
POLLUTION



2
PROTECT AND RESTORE
ECOSYSTEMS AND
BIODIVERSITY



3
SUSTAINABLY
FEED THE GLOBAL
POPULATION



4
DEVELOP A SUSTAINABLE
AND EQUITABLE OCEAN
ECONOMY



5
UNLOCK OCEAN-BASED
SOLUTIONS TO
CLIMATE CHANGE



6
INCREASE COMMUNITY
RESILIENCE TO OCEAN
HAZARDS



7
EXPAND THE
GLOBAL OCEAN
OBSERVING SYSTEM



8
CREATE A DIGITAL
REPRESENTATION
OF THE OCEAN



9
SKILLS, KNOWLEDGE
AND TECHNOLOGY
FOR ALL



10
CHANGE HUMANITY'S
RELATIONSHIP WITH
THE OCEAN



CLEAN OCEAN



HEALTHY OCEAN



PRODUCTIVE OCEAN



PREDICTED OCEAN



SAFE OCEAN



ACCESSIBLE OCEAN



INSPIRING OCEAN



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development



EuroGOOS
European Global Ocean
Observing System



Image credit:
EU4OceanObs

Leading the development and implementation of sustained and coordinated operational oceanography across Europe



48
members
from **19**
countries

140

Member Organisations of
EuroGOOS Working Groups,
Task Teams, and
Regional Systems (ROOS)



EuroGOOS Added Value for the UN Ocean Decade



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

- **Expert hub for operational oceanography:** Leverage EuroGOOS scientific and technical know-how to support global ocean observing and marine knowledge and services
- **Regional coordination strength:** Mobilize EuroGOOS Regional Operational Oceanographic Systems (ROOS) to align national and European efforts with the Decade
- **Policy influence:** Use the DIP status to advocate for integrating ocean observing into policy and funding frameworks
- **Capacity and literacy builder:** Promote knowledge transfer, science diplomacy, and tailored ocean literacy targeting policymakers and next generation of oceanographers
- **Strategic connector:** Bridge gaps between stakeholders - NDCs, GOOS focal points, private sector - through mapping, dialogue, and case studies
- **Forward look:** Drive post-2030 strategy to sustain and grow Europe's ocean observing legacy



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development



EuroGOOS
European Global Ocean
Observing System

World Café at EuroGOOS GA 2024 (Lisbon)

Contributions

Bottlenecks

Opportunities

Actions

- Decade Contributions (programmes)
- EuroGOOS Decade Action (project)
- Application for DIP recognition

- Set of focused actions as DIP
- Promotion of EuroGOOS role
- Stronger ties with other DIPs & DCO-OO

EuroGOOS DIP Plan

Continued collaboration
through Decade
Programmes, DCC-OP &
EuroGOOS Decade
Action



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

EuroGOOS's DIP Plan (1/4)



EuroGOOS
European Global Ocean
Observing System

6 Action Areas

- **Support global and regional development of operational oceanography:**
 - Help transfer knowledge and best practices to developing regions, especially within the Global South
 - Facilitate projects that help improve ocean observing systems globally, including through existing Decade Actions of relevance
- **Enhance visibility and influence of operational oceanography:**
 - Elevate operational oceanography at political and policy forums with the help of the Decade brand and EuroGOOS's Decade Implementing Partner (DIP) status
 - Strengthen connections with National Decade Committees (NDCs) and integrate national observing and monitoring efforts
- **Foster integration within EuroGOOS:**
 - Encourage internal integration / cross-group collaboration within EuroGOOS to address Decade challenges and facilitate a strategic approach to ocean observations
 - Facilitate knowledge sharing between EuroGOOS and Regional Ocean Observing Systems (ROOS) and their contribution to the Decade
- **Build capacity and knowledge sharing:**
 - Augment Ocean Literacy initiatives targeting policymakers and the public to raise awareness of ocean observations' importance
 - Promote science diplomacy, capacity sharing, and co-design.



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

EuroGOOS's DIP Plan (2/4)



A. Mapping and alignment with Decade challenges

Task 1: Map EuroGOOS activities Vs Decade challenges + assist DCO - OO in mapping ocean observing activity within the Decade



Expected outcomes:

- A map showcasing EuroGOOS's (including ROOS) contributions and potential gaps to fill within the Decade framework
- Identification of gaps and areas requiring focus within the Decade with a potential to drive new activities

B. Engagement with European National Decade Committees (NDCs)

Task 2: Identify NDC representatives – stronger link NDCs and operational oceanography



Expected outcome: Promotion of ocean observing and operational oceanography

Task 3: Develop a map of European NDC, GOOS NFPs, and EuroGOOS Members and Delegates to help promote dialogue

Expected outcome: Increased awareness of EuroGOOS Members of national coordination structures linked to ocean observing and Decade activities



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

EuroGOOS's DIP Plan (3/4)



C. Policy advocacy

Task 4: Reach out to EU and national policymakers and research funders – integrate OO into policy frameworks using the DIP brand

Expected outcome: EuroGOOS DIP policy brief/recommendations on the potential of European ocean observing and operational oceanography + funding priorities

Task 5: Support the DCO - OO's efforts to bring in private sector. Consider case studies of EuroGOOS public-private collaborations on the example of ROOS and other groups. ✓

Expected outcome: Set of European state of play/recommendations to DCO - OO developed by EuroGOOS

D. Ocean Literacy

Task 6: Develop and promote educational materials - highlight the role of oceanography in the Ocean Decade, for different targets

Expected outcome: Raised awareness among policymakers, funders, and NDCs about the value of ocean observations, and engagement of youth in ocean sciences



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

EuroGOOS's DIP Plan (4/4)



E. Forward-Looking Strategy

Task 7: Develop a long-term strategy for EuroGOOS beyond the Decade, considering where operational oceanography and EuroGOOS will stand after 2030

Expected outcome: A roadmap for sustaining EuroGOOS's contributions beyond 2030

F. Webinars and workshops

Task 8: Host webinars (Decade Cookbooks) to guide members on collaborating within the Decade, securing funding, and learning / sharing best practices

Expected outcome: Increased engagement and guidance for EuroGOOS members on how to navigate and contribute to the Decade

Task 9: EuroGOOS Integration Workshop focused on the Decade. Consider Digital Ecosystem approach of DCO OO and the engagement of private sector among the topics to address.

Expected outcome: Involvement of EuroGOOS community in the development of the EuroGOOS DIP actions



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

European National Decade Committees - Contacts



EuroGOOS
European Global Ocean
Observing System

Belgium	Ann-Katrien Lescrauwaet, Juana Jimenez
Denmark	Steffen Malskaer Olsen
Finland	Jussi Soramäki
France	Aurélie Chamiot-Prieur
Germany	Ulrike Heine
Ireland	Fiona Grant Laura McDonagh Jeremy Gault
Italy	Rosalia Santoleri
Netherlands	Maarten Heijnen Han Dolman (NIOZ) Manfred van Veghel (Carmabi) Taco de Bruin (NIOZ) Renate Smidt
Norway	Mette Mila, Siri Granum Carson
Portugal	Luís Pinheiro, Maria João Bebiano, Raquel Ribeiro, Telmo Carvalho
Slovenia	Vesna Flander-Putrlle Irena Fonda, Irena Fonda
Spain	Rafael González-Quirós Fernández
Sweden	John Tumpane
United Kingdom	Suzanne Painting, Matt Frost

BOOS GA 3 June 2025 – Special Session

- The Decade's digital ocean ecosystem & the importance of public-private partnerships - Terence McConnel, DCO-OO
- Case Studies from the BOOS Community
- Discussion: Opportunities, Barriers, and Next Steps

Pre-event survey to BOOS members

Potential for a UN Decade case study, replicable in other basins



MARITIME
ACTIVITIES



WEATHER
FORECASTS



SEARCH AND RESCUE
OPERATIONS



CLIMATE
MODELLING



BLUE
ECONOMY

info@EuroGOOS.eu

www.eurogoos.eu

Ocean Decade-dedicated
pages coming up on new
website



European Initiatives and Projects - Synergies and New Opportunities

Lucie Cocquempot

EuroGOOS General Assembly
19-21 May 2025

European Initiatives and Projects

[About us](#) ▼[News and Events](#) ▼[Documents](#) ▼[Ocean models and member products catalogues](#) ▼[EuroGOOS Best Practices](#)

EuroGOOS
European Global Ocean
Observing System



Members



Regions



Working
groups



Task Teams



EU Projects



Ocean
Literacy

[EuroGOOS](#) > EuroGOOS EU Initiatives

EuroGOOS EU Initiatives

EuroGOOS plays a leading role promoting and supporting coordination of the marine observations at the regional, pan-European, and global levels. To this end, EuroGOOS is involved in strategically important EU projects and tenders, enhancing synergy across the communities, working closely with key stakeholder initiatives and networks as well as European policy and decision-makers. This work is a critical contribution to building a sustained and integrated European Ocean Observing System (EOOS) and, coupled with the EuroGOOS roles within global initiatives (GOOS, GEO, JCOMM and others), helps promoting European leadership globally.

Recent EuroGOOS project deliverables are available [here](#).

Discover the initiatives and projects where EuroGOOS is partner and what role we play.

ONGOING



European Initiatives and Projects

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EuroGOOS
European Global Ocean
Observing System



Members



Regions



Working
groups



Task Teams



EU Projects



Ocean
Literacy

[EuroGOOS](#) > EuroGOOS EU Initiatives

EuroGOOS EU Initiatives

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ONGOING



DOORS
BLACK SEA



JERICO_{S3}
SCIENCE - SERVICES - SUSTAINABILITY

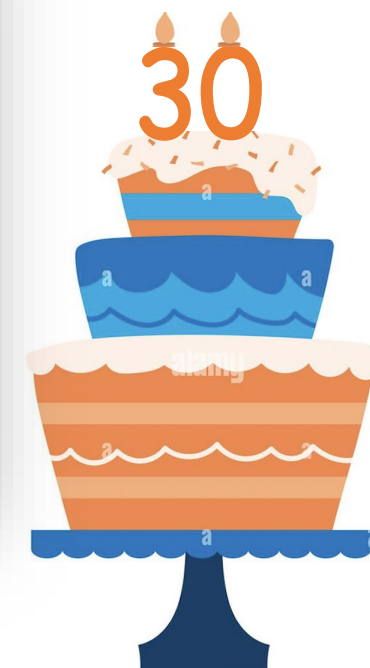
European Projects recent legacy



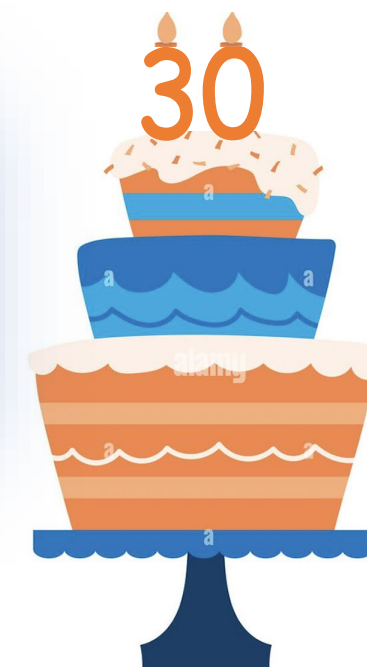
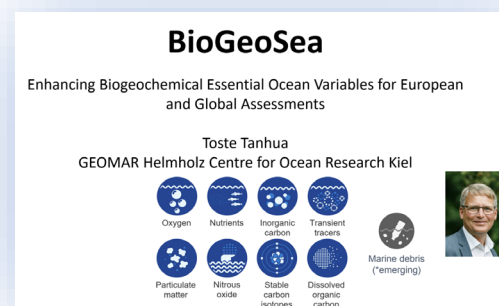
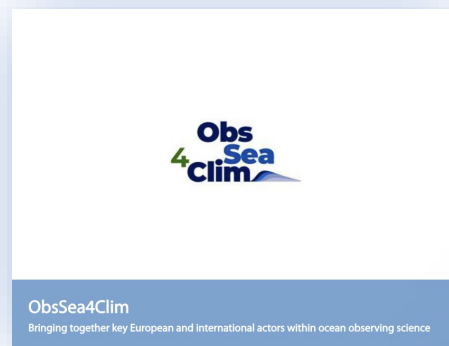
European Projects recent legacy

AtlantOS

AtlantOS
Optimising and Enhancing the Integrated Atlantic Ocean Observing Systems



European Projects recent legacy



European Projects recent legacy



DOORS

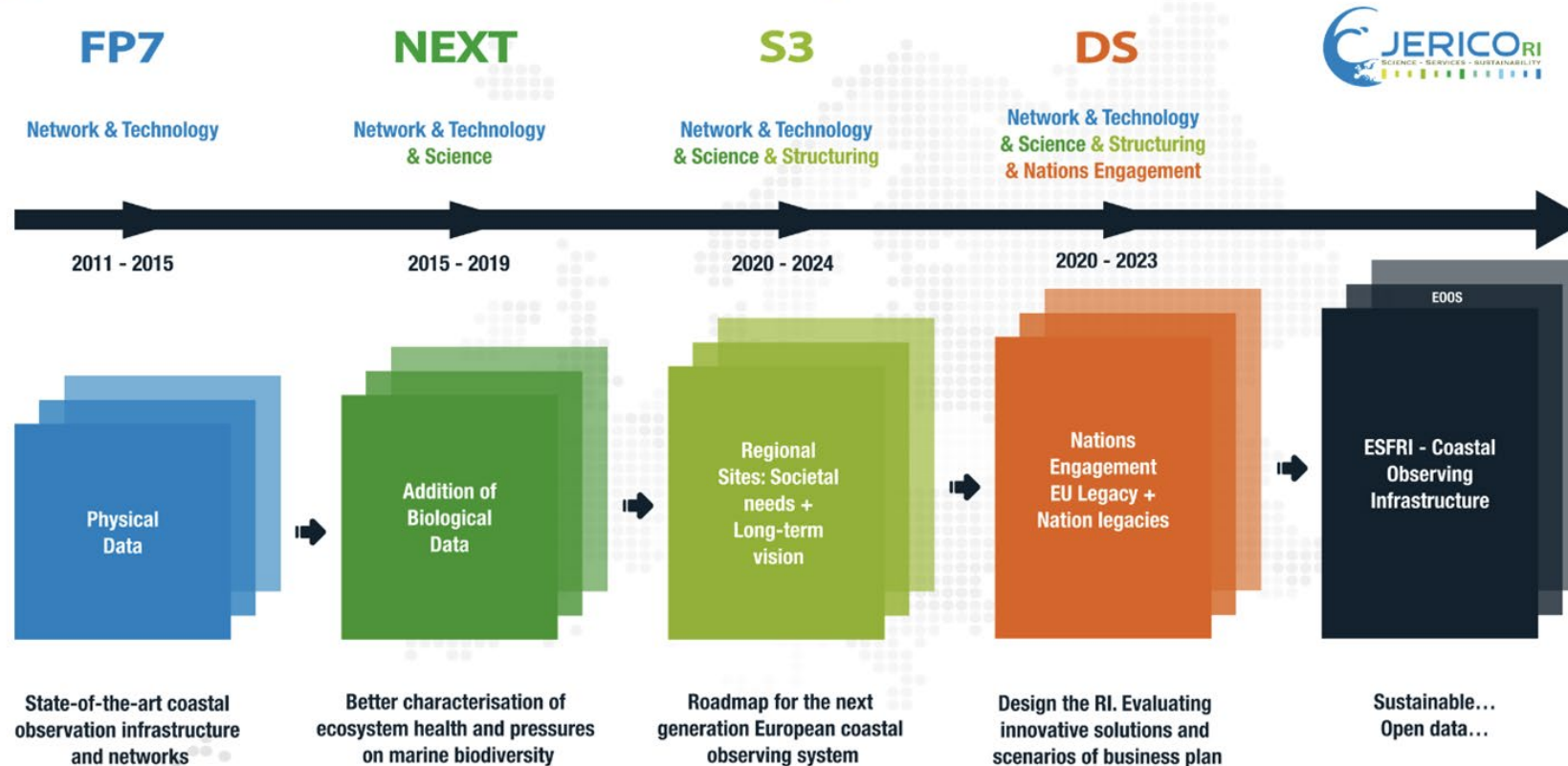
Developing Optimal and Open Research Support for the Black Sea



European Projects recent legacy



Building the Research Infrastructure



European Projects on going



FOCCUS

Improving and advancing the coastal dimension of the Copernicus Marine Environment
Monitoring Service

European Projects on going

EU4Ocean

EU4Ocean

Connecting diverse organisations, projects, and people that contribute to ocean literacy and the sustainable management of the ocean

European Projects on going



Blue-Cloud 2026

Further evolution of this pilot ecosystem into a Federated European Ecosystem to deliver
FAIR & Open data and analytical services

European Projects on going



AMRIT

Advance Marine Research Infrastructures Together

European Projects Challenges

Always searching for the right balance ..

European Projects Challenges

Always searching for the right balance ..

Should we look for
opportunity or structuring
participation?



What is the appropriate
ratio between Project / Core
Activities ?

Contributions should benefit first to
EuroGOOS members or to EuroGOOS AISBL ?

European Projects Challenges

Should we look for opportunity or structuring participation?

Should we build a road map ?

1
STIMULATE
communities of practice.

2
ADVOCATE
for coordinated and integrated
European ocean observing and
operational oceanography.

3
STRENGTHEN
and expand partnerships.

4
PROMOTE
sustainability across the
value chain of operational
oceanography and ocean
observing.

5
MOBILISE
the public on the
importance of the ocean
and oceanographic services.



How projects outcomes can feed EuroGOOS Core activities ?

AtlantOS

EuroSea



European Projects Challenges

What is the appropriate ratio between Project / Core Activities ?

How far should we go to get our activity covered by projects..? contracts .. ?

**Financial aspects will
be addressed
tomorrow**

Not every Member can be part of the same project.. how do we maintain the dynamics ?

European Projects Challenges

Contributions should benefit first to EuroGOOS members or to the AISBL ?

..Or could it be both?

- ☐ lobbying for call publication in the workprogramme
- ☐ sharing information on open/ongoing calls
- ☐ networking to establish partnerships.
- ☐ writing proposal contribution...

How to reinforce the idea that every EuroGOOS participation to projects is AISBL Participation not only Office one ?

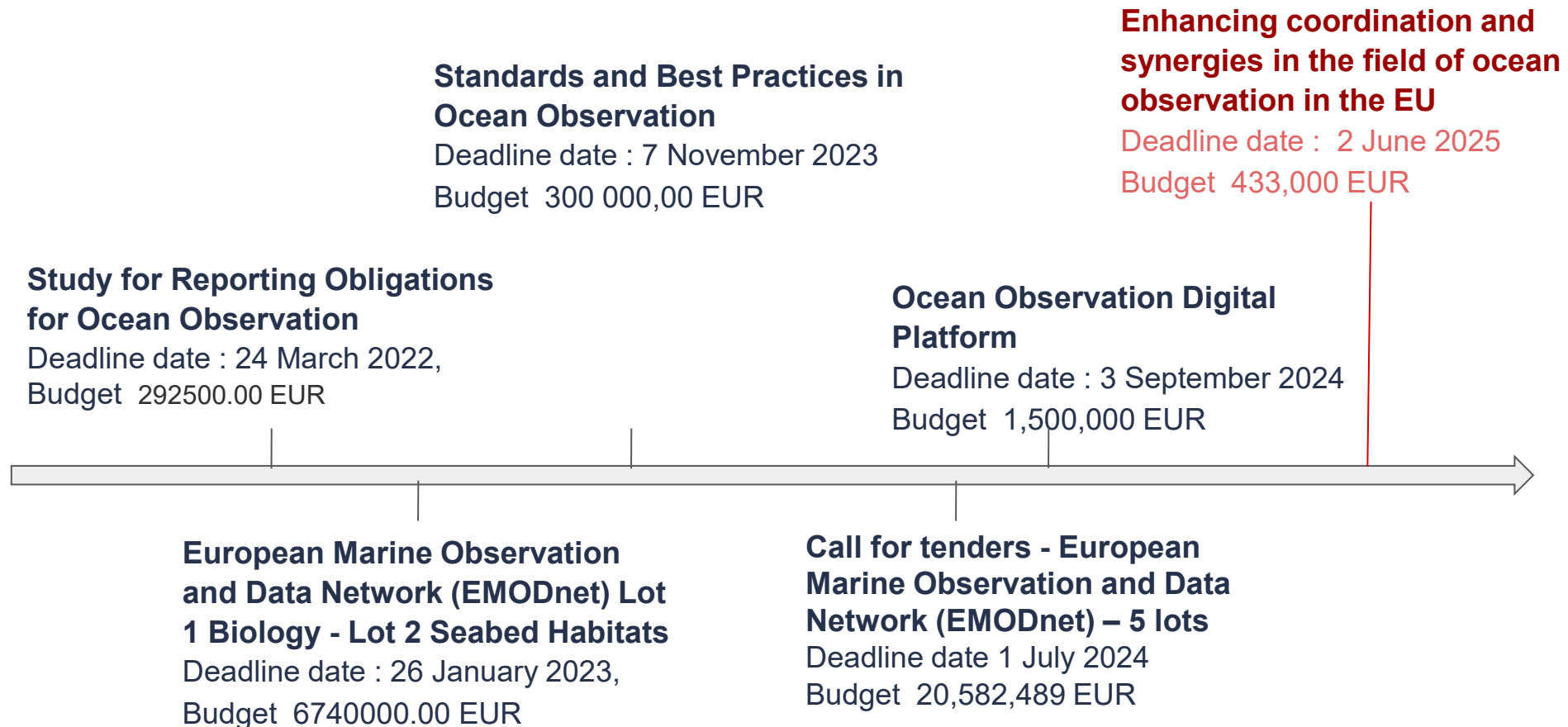
Contracts participation

Use Case : CINEA Call participation

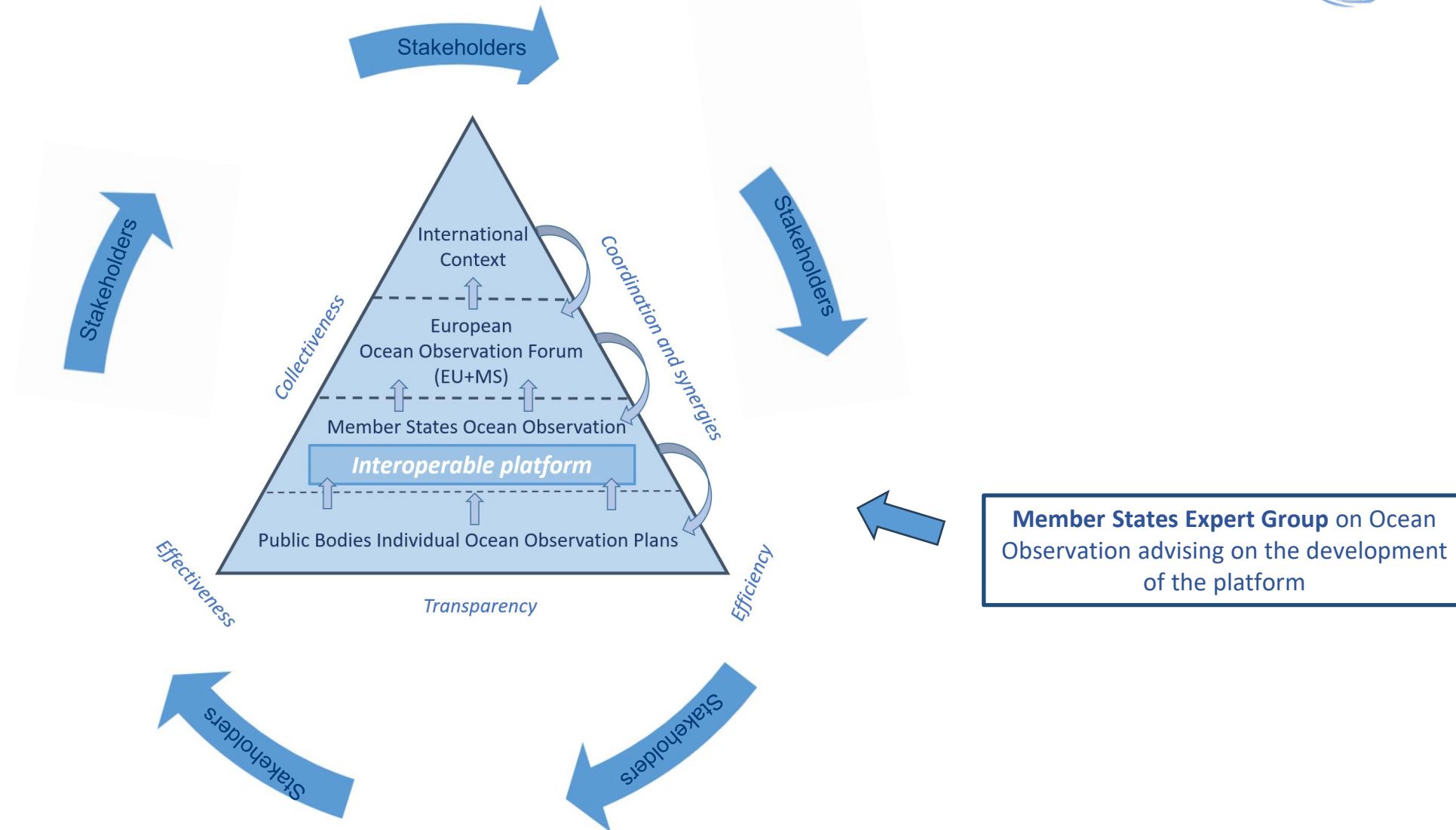
Enhancing coordination and synergies in the field of ocean observation in the EU

CINEA/2025/OP/0002

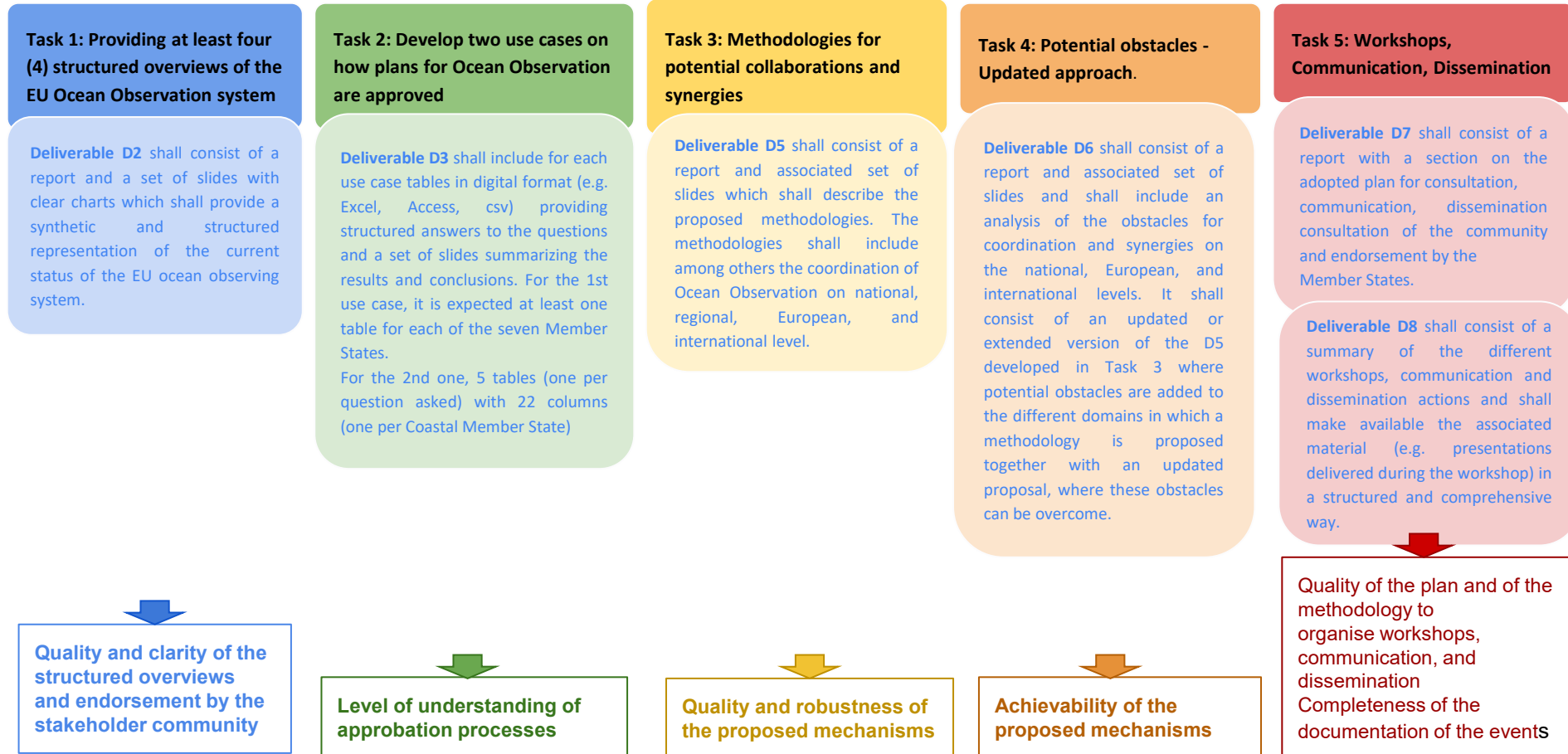
Recent history of CINEA Calls dedicated to Ocean Observation



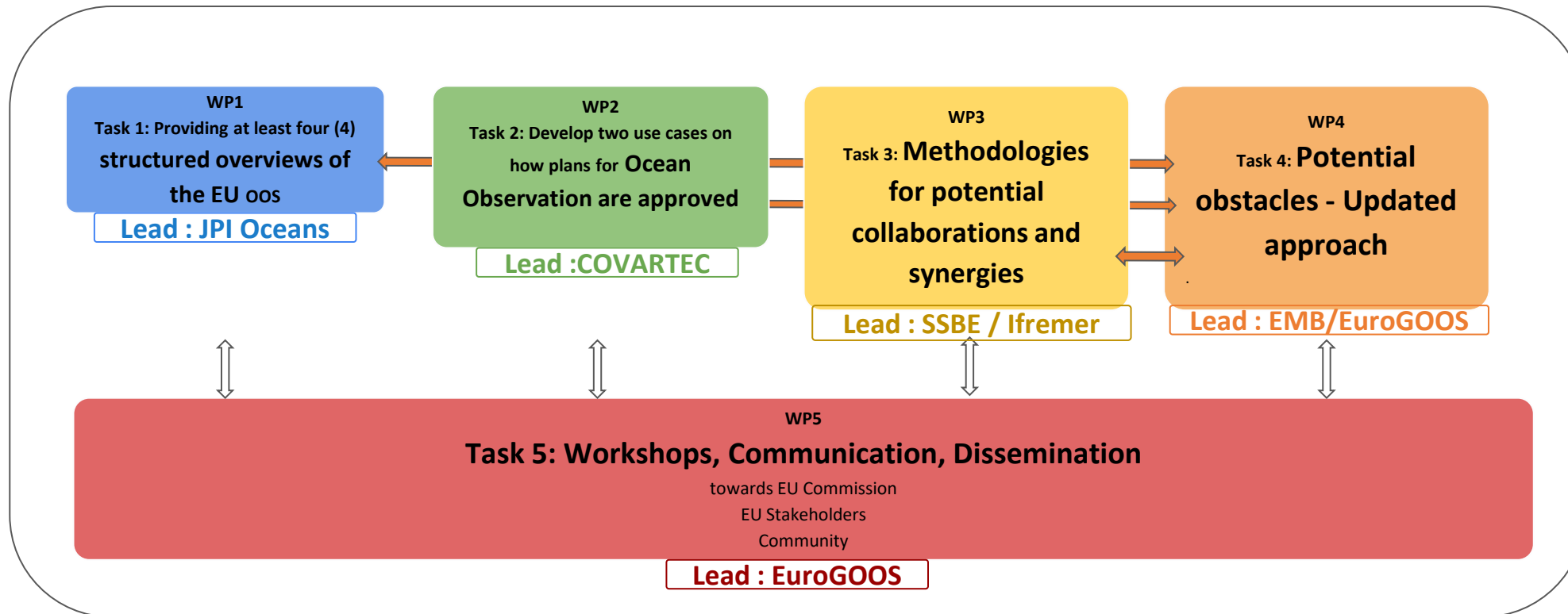
Ocean Observation : DG Mare - vision



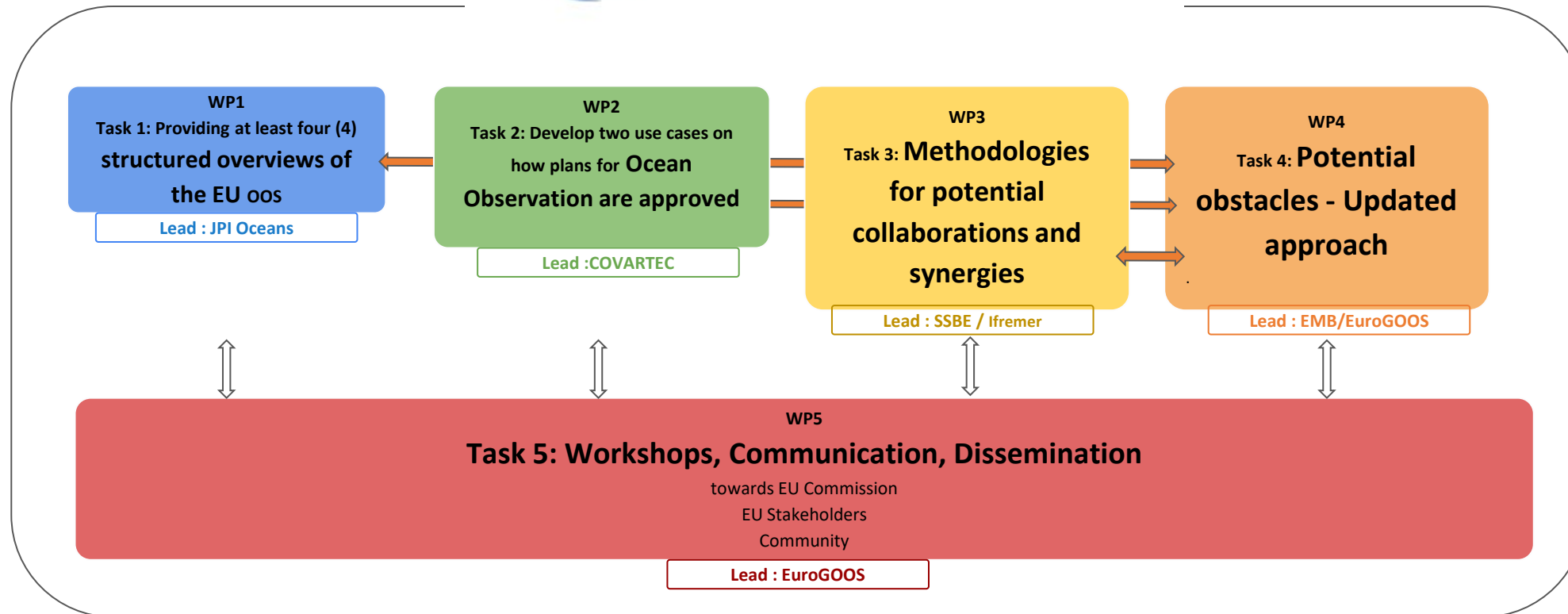
Description of the call: 5 Tasks and 6 Deliverables

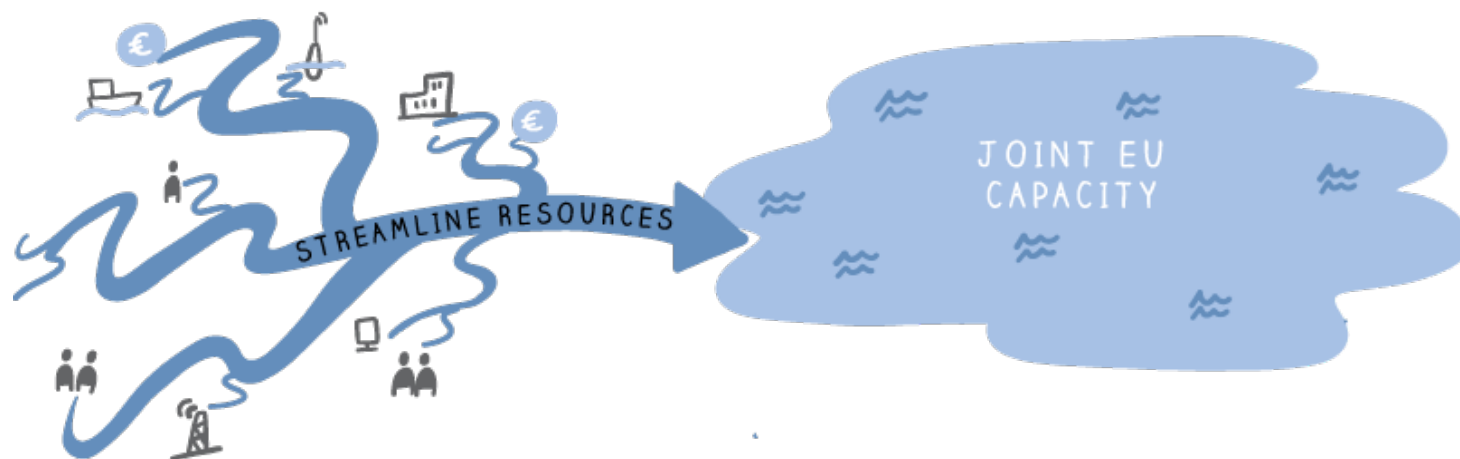


EOOS meeting - Projet structuration



EOOS meeting - Projet structuration





ROOS Session

Chair: Vidar Surén Lien

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

Outline

- ROOS Activity Reports
- ROOS Panel discussion – Use of AI in Ocean Observing
 - Introduction by SAWG
 - Key Questions Posed by ROOS Chairs



Activity Report

Highlights - Focus - Future Plans

- ✓ ArORA - continue to support the design of a framework for an Arctic Ocean Regional Alliance (presented yesterday by Anna)
- ✓ Close collaboration with the OceanPrediction Decadal Collaborative Centre Arctic Regional Team
 - ✓ Joint workshop on use of AI in ocean observing and forecasting
 - ✓ Regional Team Leader observing role in Steering Group
- ✓ Started activities in Task Team on in-situ sea ice observations and data
- ✓ Successful GA in May (kindly hosted by EuroGOOS Office in Brussels) with representation from SAWG
- ✓ New members!



BOOS

EuroGOOS Baltic Regional
Operational Oceanographic System

Activity Report

- Cooperation in Baltic Argo and glider measurements and QC
- SBEP/DTO4OWE: Joint BOOS-NOOS project to address challenges related to the growing Offshore Wind Energy sector
- National modelling systems benefit from BALMFC R&D on NEMO, PDAF and ERGOM and from joint Nemo-Nordic and ERGOM working groups
- AI/ML WG: joint ML WG – Coastal modelling WG workshop; a workshop on using AI/ML for coastal forecasting e.g. sea level
- Remote sensing cooperation: ESA project 4DBaltDyn, Horizon project FOCCUS and LandSeaLot
- Joint initiative on a Special Issue on storm Babet 8 papers in preparation: storm surge processes, forecast technology, fit4purpose monitoring, impact assessment, data assimilation, wave-current interaction, coastal erosion, flooding assessment, climate attribution

BOOS CHALLENGES

- Lack of resources for BOOS collaboration: to maintain an active collaboration for a STG and 12 WGs
- Lack of joint funding to engage several BOOS partners in projects
- Geopolitical situation induces challenges for operational oceanography
- Green transition exposes great challenges for classic operational oceanography, need to development new capacities
- Integrating information, me on-going R&D projects with BOOS WGs

BOOS FUTURE WOK

- Strengthen work of BOOS Steering Group
- Find possibilities for joint proposals engaging several BOOS partners
- COST Action proposal for AI/ML activities
- To have regular WG meetings and workshop
- Integrate on-going R&D projects with BOOS WGs
- Finalize the special issue on Storm Babet



NOOS

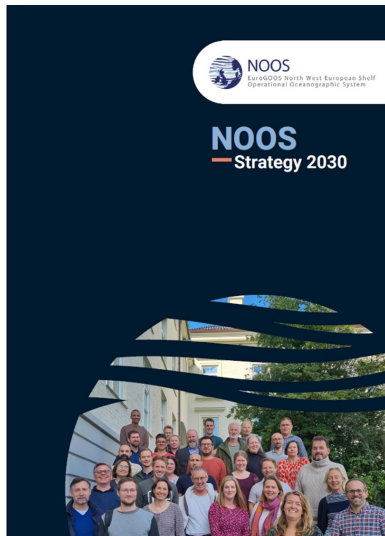
EuroGOOS North West European Shelf
Operational Oceanographic System

Activity Report

NOOS - HIGHLIGHTS



- AM 2024 in Copenhagen, in cooperation with BOOS
- We agreed on the NOOS strategy 2030
- Activity plan 2024 emphasis on re-energizing our working groups, first activities on-going
- BSH-led consortium was awarded the NWS-MFC contract

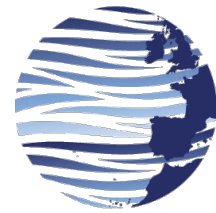


- In cooperation with BOOS we start to exchanging AI plans and ambitions
- We are inviting young scientists for AM 2025
- In cooperation with UWC-West we started a verification project for storm surge forecasting

FUTURE AMBITIONS and CHALLENGES

- New active SG in place, sharing the work
 - NOOS Data Portal: meeting planned to decide on future of this service
 - NOOS poor man's ensemble forecast (NOOS-BMA) is prepared to be updated
-
- Many 'sleeping' members on the NOOS list
 - Time and capacity is an issue – trying to bring in new members;
 - Support WG leaders with young scientists
 - Lack of projects to support activities, focus on project opportunities





IBIROOS

EuroGOOS Ireland Biscay Iberia
Regional Operational Oceanographic System

Activity Report

HIGHLIGHTS

- The marine observation network stable and reliable, with planned sensor upgrades and minimal data gaps.
- Data acquisition workflows were improved through automation tools and APIs
- Improvements in high-resolution coastal and shelf-scale models to support marine services
- Observational data and model outputs were integrated into public-facing platforms and services
- Collaborative use of infrastructure e.g., NAUI platform, EMSO-ERIC, PAP-SO.

CHALLENGES

- Reduced project activity
- Fewer common initiatives (e.g., no recent Atlantic Area Interreg projects)
- Weakened partner interaction
- Need for sustained coordination
- Greater effort required to maintain joint actions during periods of low shared project engagement.

FUTURE LOOK

- Annual Meeting (in Person): Fall 2025
- Memorandum of Understanding Update. New partnerships in the Atlantic Arc, including observers that are not yet partners.
- Strengthen collaboration across institutions through coordinated observation efforts and shared use of platforms.
- Collaborative work in communities (e.g.: HF radar, gliders, FVON platforms, low cost/low tech sensors)
- Improve data accessibility and visibility of IBIROOS through digital tools and outreach.
- Search specific funding for data processing and dissemination



Activity Report

HIGHLIGHTS

- New cooperation with the fisheries sector: key player in the establishment of the Tuna Observatory in the Mediterranean.
- Eleccion of a new Co-Chair
- Partner contributions to a survey on observing capacities led to an updated MonGOOS Observational Dashboard, forming the basis for a White Paper on Mediterranean Observation Capacities
- MonGOOS, representing the Mediterranean and Black Seas in OceanPredict DCC, is leading the development of a White Paper on Mediterranean forecasting and modeling, outlining present strengths and areas needing improvement.



**Collaboration with EU-Projects:
AMRIT and AQUARIUS
WORKSHOPS**

CHALLENGES -BOTTLENECKS

- More partners contribution is needed
- Communication between partners should increase
- Lack of projects that could finance Mediterranean activities
- Link with neighbouring GOOS Regions: Black Sea GOOS and GOOS Africa, for sharing activities information is missing

MAIN PRIORITIES



1. MonGOOS Strategy Plan

- Revise the 2018 Strategic Plan to reflect the current and emerging challenges in the Mediterranean Sea region.”

2. Strategic Alignment and Partnerships

- Strengthen alignment between MonGOOS strategies and the objectives of Mediterranean Fisheries Management Organizations.
- Enhance collaboration with ICCAT and FAO on climate change and fisheries initiatives (e.g., MedTunaHabitatObs).
- Engage in the FAO-led GFCM Network of Experts on Climate Change.

MAIN PRIORITIES

3. **Improve coordination and visibility by linking MonGOOS with relevant EU projects and programs:** Sustainable Observations and Capacity Building

- Address the sustainability of existing observing networks, which currently depend on national and short-term funding -> Encourage broader network participation in EU-funded initiatives supporting long-term, sustainable ocean observations.
- Promote increased participation of non-EU Mediterranean countries in observation and forecasting activities.
- Promote broader implementation of Biogeochemical (BGC) measurements across the region.

4. **Data, Standards, and Best Practices**

- Enhance data sharing, interoperability, and standardization among partners to support forecasting and modeling efforts.
- Promote adoption of best practices in operational oceanography, with a focus on improving model inputs and usability.

Mediterranean **O**ceanography **N**etwork for the
Global **O**cean **O**bserving **S**ystem

THANK YOU !
THANK YOU !

ROOS Panel Discussion Intro by SAWG

Use of AI in Ocean Observing

Webinar

[EuroGOOS SAWG Webinar | Artificial Intelligence and Machine Learning in Operational Oceanography - YouTube](#)

Agenda

09:00-09:10	Welcome and introduction Manfred Zeiler , Co-Chair, EuroGOOS Science Advisory Working Group
09:10-09:40	Keynote: 'Sustainable AI in Marine Science' Oliver Zielinski , Leibniz Institute for Baltic Sea Research, Germany
09:40-10:00	Towards Virtual Sensors: Using AI to model the Photosynthetically Available Radiation in the Water Column Frederic Stahl , German Research Centre for Artificial Intelligence
10:00-10:20	Data spaces and AI for time series sensor data Uwe von Lukas , Fraunhofer Institute for Computer Graphics Research, Germany
10:20-10:35	Break
10:35-11:55	Deep learning multi-point and basin-scale gridded sea level predictions using sparse sea level data Matjaž Ličar , Slovenian Environment Agency, National Institute of Biology
11:55-12:15	Machine learning for operational oceanography in BOOS AI Working Group Jian Su , Danish Meteorological Institute
12:15-12:55	Moderated discussion Jian Su , Danish Meteorological Institute
12:55-13:00	Wrap up and closing Manfred Zeiler , Co-Chair, EuroGOOS Science Advisory Working Group

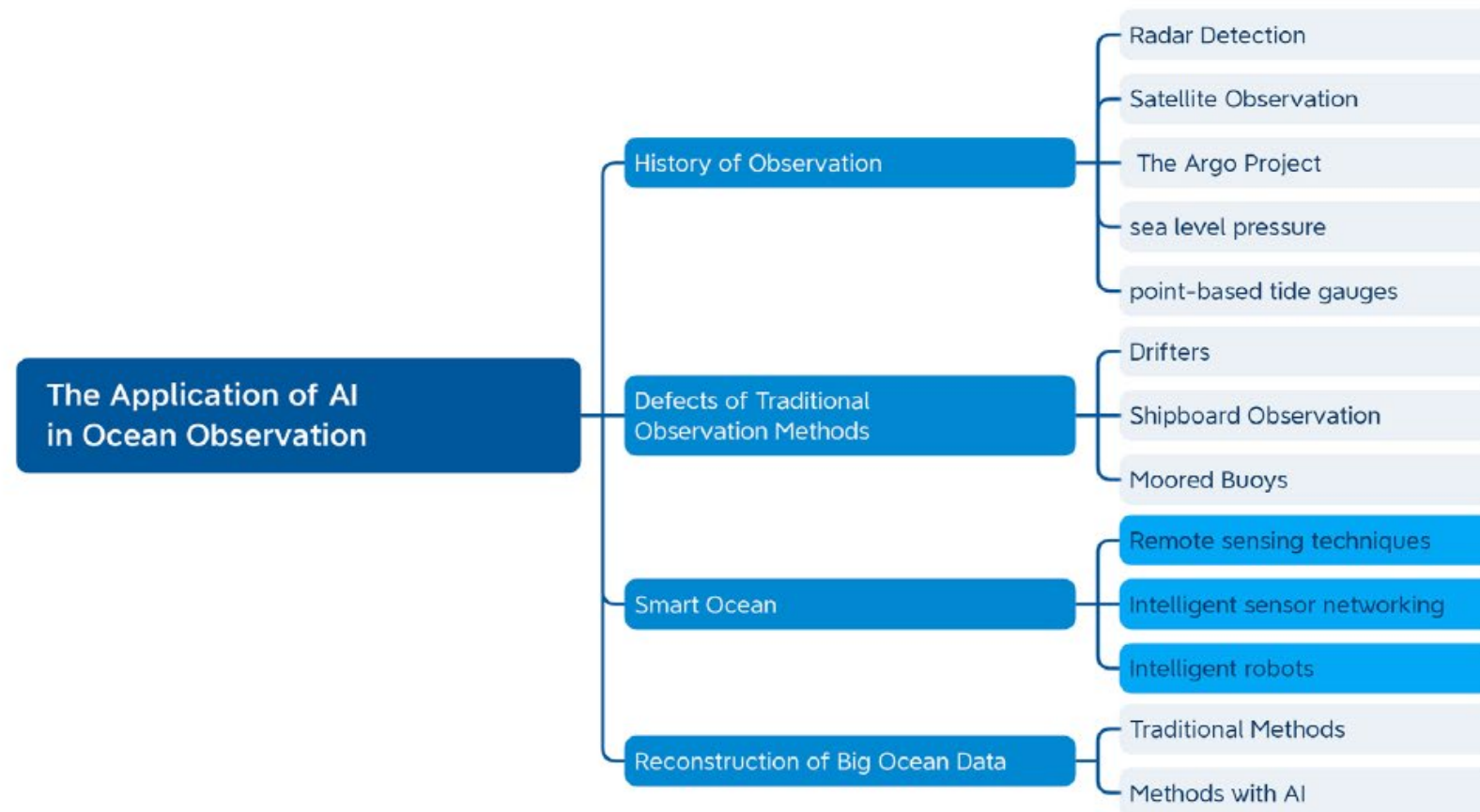


FIGURE 1
The Application of AI in Ocean Observation. First, the history of ocean observation is presented, followed by a discussion of the inadequacies of conventional ocean observation methods, the strategies for merging ocean observation with artificial intelligence, and then the reconstruction of data.

Song T, Pang C, Hou B, Xu G, Xue J, Sun H and Meng F (2023): A review of artificial intelligence in marine science. *Front. Earth Sci.* 11:1090185. DOI: 10.3389/feart.2023.1090185

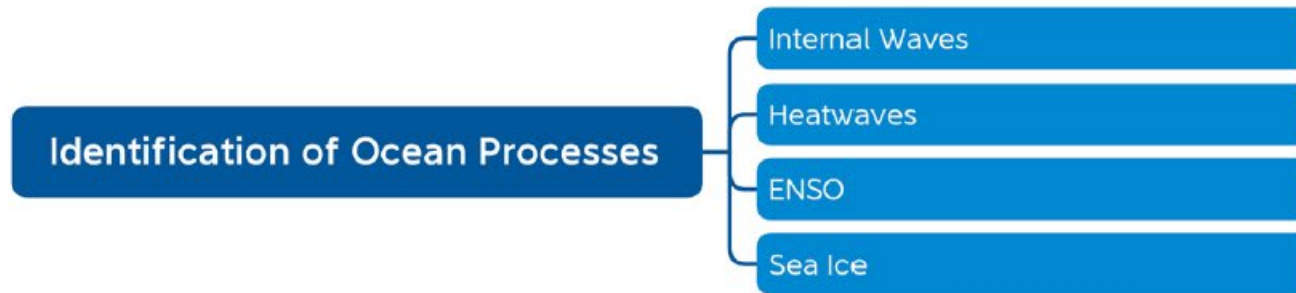


FIGURE 3

The Identification of Ocean Phenomena. This section describes four ocean phenomena (internal waves, heatwaves, ENSO, and sea ice).

Song T, Pang C, Hou B, Xu G, Xue J, Sun H and Meng F (2023): A review of artificial intelligence in marine science. *Front. Earth Sci.* 11:1090185. DOI: 10.3389/feart.2023.1090185

Ocean Element Forecasting

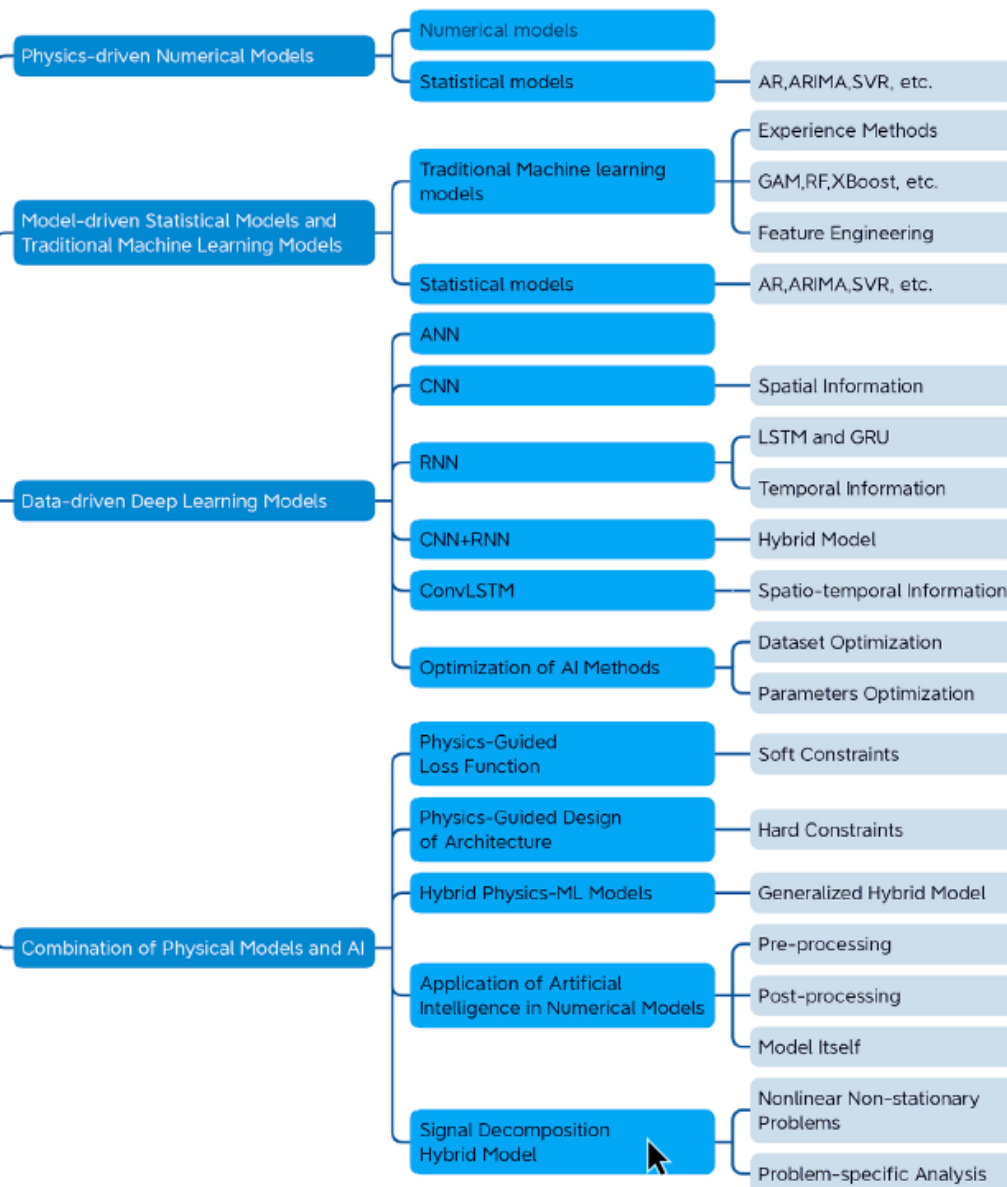


FIGURE 6

Ocean element forecasting. Four components comprise the AI approach to ocean element forecasting: physics-guided numerical models, model-guided statistical and traditional machine learning models, data-guided deep learning models, and the combination of physical models and AI. Each section describes the most prevalent model algorithms and model optimization techniques in the area of ocean element forecasting.

Song T, Pang C, Hou B, Xu G, Xue J, Sun H and Meng F (2023): A review of artificial intelligence in marine science. *Front. Earth Sci.* 11:1090185. DOI: 10.3389/feart.2023.1090185

Key Question:

How to make sure that implementation of AI methods do not compromise data quality and service reliability?



HOW CAN WE ENSURE THAT AI IMPLEMENTATION DOES NOT COMPROMISE DATA QUALITY AND SERVICE RELIABILITY?

Design AI systems
with data quality
in mind

Implement
cross-validation
approaches

Ensure
explainability and
transparency

...

Train AI systems
with validated
datasets

Combine AI with
physics-based
models

Keep humans
in the loop

Key Question:

How can we make sure to retain the trust of the users?

AI model-based information – challenge of acceptance and governance

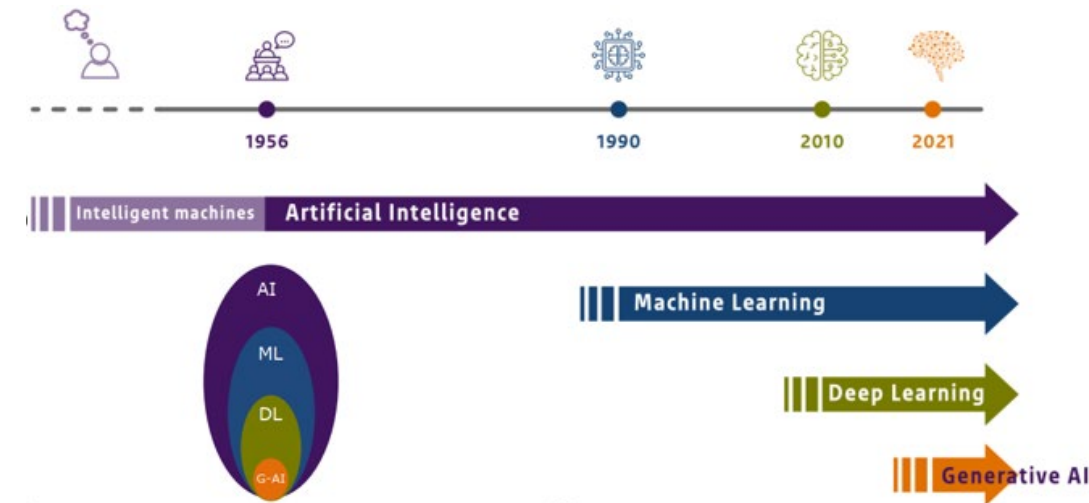
- While ML models are proven technology, recent AI applications set new expectations, and public id not differentiate between the different approaches
- Forecast and warning need to be trusted, whatever model it is based on

Michael Cranston, SEPA (LinkedIn post on a CREW workshop):

-  Speed up forecasts
-  Make sense of complex data
-  Support (not replace!) human decisions

Open discussions with experts at CREW's DelugeAI workshop revealed that whilst Artificial Intelligence and Machine Learning offers speed and scale, it's important that:

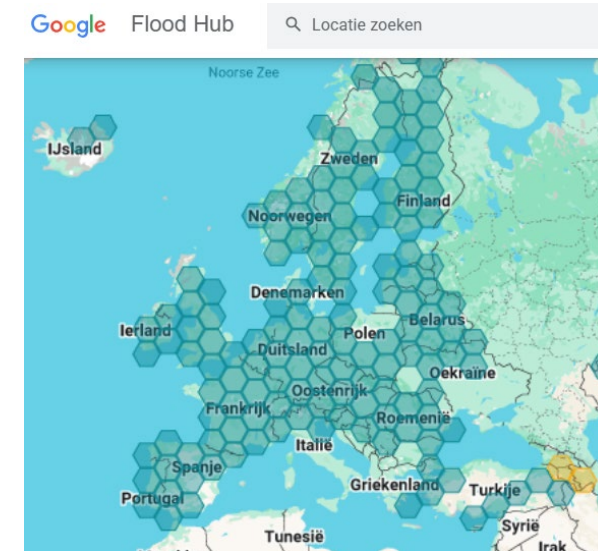
-  "Humans must stay in the loop"
-  Ethical safeguards are built
-  The workforce is upskilled
-  Trust and transparency is a focus



We need governance, we need to explain why we use AI-models, and what are different concepts. And why the models can be trusted!

AI model-based information – challenge of acceptance and governance

- We need more than only technical solutions – common effort?
- Do we know how to deal with different regulations on the data we use itself?
- Public is confronted with AI model results – (e.g. google flood hubs), can this be disruptive for trust in our services?
- Policy makers need to understand the impact and possible risks of using these models – not because they are new, but because we now have something like ChatGPT?



Key Question:

How can EuroGOOS play a role in supporting the ocean observing community in adopting and integrating AI within the frame of best practices?

How can EuroGOOS play a role in supporting the ocean observing community in adopting and integrating AI within the frame of best practices?

☐ Coordination and standardization

- ✓ To ensure robustness and common standards, operability, best practices
- ✓ Advocate for the need for responsible use of AI

☐ Knowledge sharing and training opportunities

- ✓ Up-to-date on acknowledged methods and best practices; compliance with ethical standards, etc.

EuroGOOS Task Teams and Working Groups - Assessment and Role in the European Ocean Observing Landscape

Review of Task Teams and Working Groups

Why?

- Strengthen the alignment with the strategy
- Facilitate Integration and cross-cutting activities
- Support the TT & WG with the suitable actions/office/events
- Promote the activities in a wider community
- Enhance impact and visibility of the efforts



1
STIMULATE
communities of practice.

2
ADVOCATE
for coordinated and integrated
European ocean observing and
operational oceanography.

3
STRENGTHEN
and expand partnerships.

4
PROMOTE
sustainability across the
value chain of operational
oceanography and ocean
observing.

5
MOBILISE
the public on the
importance of the ocean
and oceanographic services.

Review of Task Teams and Working Groups

How?

- The Board assigned specific Board and Office members to each Task Team (TT) and Working Group (WG).
- Members were tasked with completing a matrix (some Chairs were involved in answering) with the following details:
 - Alignment: How does the TT/WG's Terms of Reference (ToR) align with the EuroGOOS 2030 Strategy?
 - Relevance: How relevant and timely is the TT/WG's work?
 - National Connection: How aligned is the TT/WG with national strategies of EuroGOOS Members?
 - Initiative Links: How well is the TT/WG connected to other initiatives?
 - Cross-Cutting: How does the TT/WG interact with other TTs or WGs?
 - Recommendations: Advice or recommendations from the Board to the WG.
- Matrix was then analysed for key findings
- Some limitations of the Analysis:

Membership: Are current members relevant, or should updates be made?

Attendance: Is meeting participation sufficient? Is interaction encouraged?

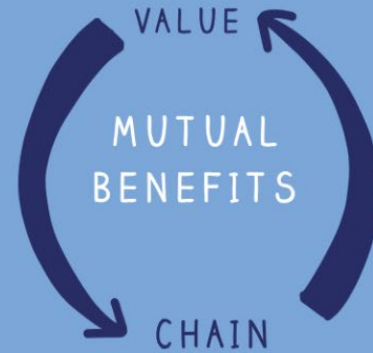
Recruitment: Is it hard to find new members or replacements? Would training or broader outreach help?

Impact: Is the group's work valuable and relevant to the members' assembly?

Task Teams

EuroGOOS Task Teams are networks of ocean observing platforms. Task Teams promote scientific and technological synergies among European ocean observing infrastructures. Task Team members collaborate in the areas of shared priorities, exchange best practices, and feed data to the EuroGOOS ROOS regional portals, EMODnet, and Copernicus Marine Service.

The following Task Teams are currently coordinated by EuroGOOS:



FerryBox

Tide Gauge

Gliders

High
Frequency
Radar

Argo

Fixed
Platforms

EuroGOOS Working Groups

Working Groups

EuroGOOS coordinates expert working groups in areas underpinning its objectives, to identify strategies, cooperate, co-produce and promote the operational oceanography value for society.

The following working groups are currently active in EuroGOOS:



Biological
Observations
Working
Group

Coastal
Working
Group

Data
Management,
Exchange
and Quality
Working
Group

Science
Advisory
Working
Group

Technology
Plan
Working
Group

Ocean
Literacy
Working
Group

EuroGOOS Working Groups

Science Advisory Working Group

- ❖ Strengths: Provides scientific advice to support national priorities and improve services. Actively engages in internal integration among ROOSs, WGs, and TTs. Involved in EU consultations and the UN Decade of Ocean Science.
- ❖ Questions: Weak national strategy connections. Limited focus on public engagement and mobilization.
- ❖ How can we move forward / suggestions: Strengthen national strategy links by establishing clearer action plans. Clarify roles of Science advisory and Strategic advisory tasks: do both or split groups?

- ❖ Strengths: Focuses on optimising collaboration and integration for technological advancement. Links established with key groups like GOOS, JCOMM, IOC, and WMO.
- ❖ Questions: Limited membership and reduced national-level connections. Absence of references to major initiatives like the UN Ocean Decade and Copernicus Marine Service.
- ❖ How can we move forward / suggestions: Initiate a new membership call to increase active participation. Develop clear objectives for engagement with national strategies. Maybe a clearer communication of the WGs focus?

Technology Plan Working Group

Biological Observations Working Group

- ❖ Strengths: Strong focus on uniting fragmented communities and promoting best practices. Emphasis on standards and quality control for harmonized biological observation efforts. Engagement with new partners such as GEO BON, enhancing partnerships.
- ❖ Questions: Limited focus on public engagement despite promising educational and citizen science initiatives. The WG is less active, with uncertain progress since the ToR.
- ❖ How can we move forward / suggestions: Strengthen connections with technological initiatives like Digital Twins of the Ocean. Draft a clear timeline and activation plan for the group. Improve collaboration with other WGs and ROOSs for biological observations.

EuroGOOS Working Groups – Cont'd

Coastal Working Group

- ❖ Strengths: Clear focus on engaging communities and addressing observational gaps. Strong advocacy for funding and coordination, aligning well with strategic priorities. Significant connections to regional and international initiatives.
- ❖ Questions: Limited explicit references to national strategies. Communication plans need stronger public advocacy focus.
- ❖ How can we move forward / suggestions: Strengthen references to national strategy connections to enhance regional integration. Develop stronger collaborative efforts with data-centric WGs for coastal data harmonization. Leverage ROOS contributions for integrated regional observations.

- ❖ Strengths: Detailed task list aligned with stimulating and strengthening objectives. Clear focus on data integration, harmonization, and coordination.
- ❖ Questions: Weak national strategy connections. No clear mobilization efforts or focus on time-sensitive opportunities.
- ❖ How can we move forward / suggestions: Establish clear national connections through technical contact points. Enhance participation in ODIS and global-local data integration efforts. Support better monitoring of recommendations like the EuroGOOS data policy.

Data Management, Exchange and Quality Working Group

Ocean Literacy Working Group

- ❖ Strengths: Engaged group focused on ocean literacy (OL) and public awareness. Strong advocacy for coordination with European observing systems and marine science initiatives. Strong engagement with UNESCO, EU4Ocean, and DOORS initiatives.
- ❖ Questions: Limited references to specific national strategy connections. Citizen science connections require enhancement.
- ❖ How can we move forward / suggestions: Improve collaboration with Citizen Science initiatives to strengthen outreach. Develop visualization tools to improve data accessibility and storytelling. Strengthen links with organizations like Mercator and EOOS for broader impact.

EuroGOOS Task Teams



- ❖ Strengths: Strong framework for recommendations, scientific synergies, and tool-sharing. Excellent standardization practices across multiple observation platforms.
- ❖ Questions: Needs improved connection with national strategies; limited advocacy and stakeholder engagement.
- ❖ How can we move forward / suggestions: Focus on stronger advocacy efforts, such as preparing policy briefs or engaging with governmental agencies. Enhance collaboration with the Fixed Platform Task Team on metadata management tools. Rework description of role for community building and governance in ToRs.



- ❖ Strengths: Large, active group with representatives from over 20 countries; strong alignment with EuroGOOS 2030 Strategy objectives.
- ❖ Questions: ToR timeline outdated (only extends to 2021); lacks a mobilization plan for stakeholders and users.
- ❖ How can we move forward / suggestions: Update ToR with extended timelines. Introduce strategies for stakeholder mobilization, possibly through public events or direct engagement activities. Consider adding a second co-chair for such a large group?



- ❖ Strengths: Active members coordinating across multiple countries; engaged community across EuroGOOS regions; strong collaboration with key networks like GROOM and international glider groups.
- ❖ Questions: Disconnect in vision; needs improved alignment with national strategies and European initiatives. Mobilization efforts are somewhat unclear.
- ❖ How can we move forward / suggestions: Introduce clearer strategies for mobilizing the glider community to achieve broader objectives like improved chemical and biological data collection.

EuroGOOS Task Teams – Cont'd



- ❖ Strengths: Strong community-driven team with active leadership; excellent platform for exchange and data-sharing practices.
- ❖ Questions: Outdated Gantt chart; limited focus on public outreach.
- ❖ How can we move forward / suggestions: Update Gantt chart for clarity in timelines. Strengthen stakeholder connection strategies and public awareness activities. Intensify collaboration with WGs?



- ❖ Strengths: Strong global connections (e.g., tsunami monitoring); effective alignment with most strategy objectives; partnerships with key organizations like PSMSL, GLOSS, and ICG/NEAMTWS.
- ❖ Questions: Delays in ToR finalisation; weak engagement with EU projects and UN Ocean Science initiatives; unclear direction; lacks clear mobilization initiatives.
- ❖ How can we move forward / suggestions: Reassess objectives to improve clarity and direction. Develop outreach programs to engage stakeholders directly in promoting Tide Gauge data use.



- ❖ Strengths: Technical and operational support for Euro-Argo; strong in expanding partnerships and strengthening non-ERIC Argo programs; well-involved in Euro-Argo events like Science and Users Meetings.
- ❖ Questions: Exclusion of some members from EU proposals, creating tension; difficult national-level engagement; limited advocacy activities or policy engagement; weak public outreach.
- ❖ How can we move forward / suggestions: Develop clear engagement strategies for stakeholders, enhance public communication efforts, and create advocacy materials for policy influence. Reinforce ties with ERICs and Jerico to improve cohesion.

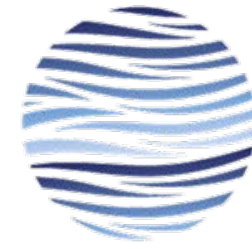
Task Teams and Working Groups - Discussion

General Recommendations

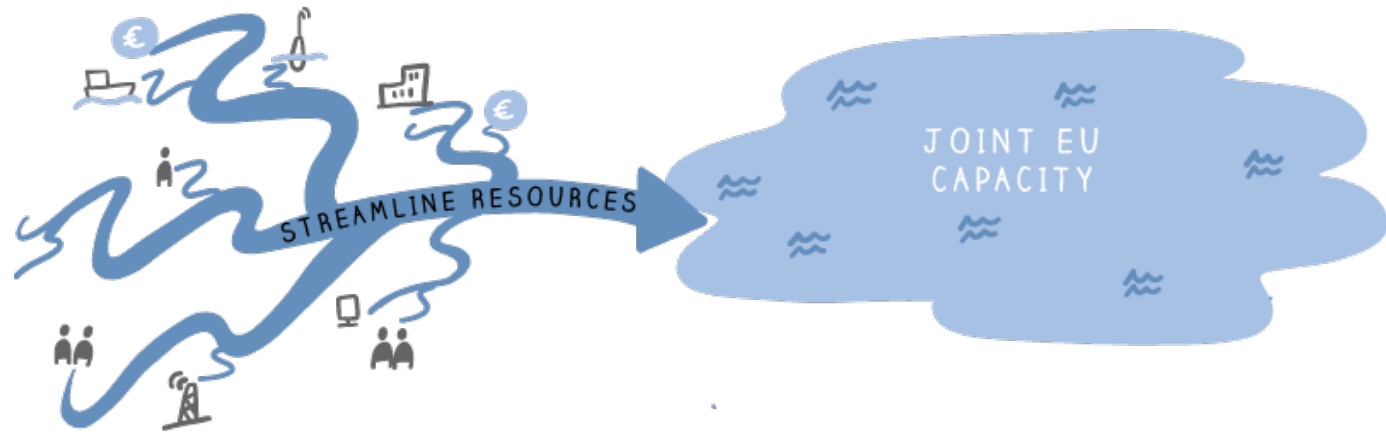
- **Strengthen National Strategy Connections:** Encourage explicit references to national priorities in ToRs and activities.
- **Improve Public Engagement:** Develop comprehensive outreach plans that enhance awareness of WG contributions.
- **Enhance Collaboration:** Foster synergies between WGs, TTs, and ROOSs to promote knowledge exchange and integration.
- **Membership Expansion:** Encourage active membership expansion for better representation across EuroGOOS nations.

Task Teams and Working Groups - Next Steps

- Do we need new TTs/WGs?
- Are they interactive enough?
- How to feedback from and to projects
- Link to initiatives...



EuroGOOS
European Global Ocean
Observing System



Twitter: @EuroGOOS

Email: info@eurogoos.eu

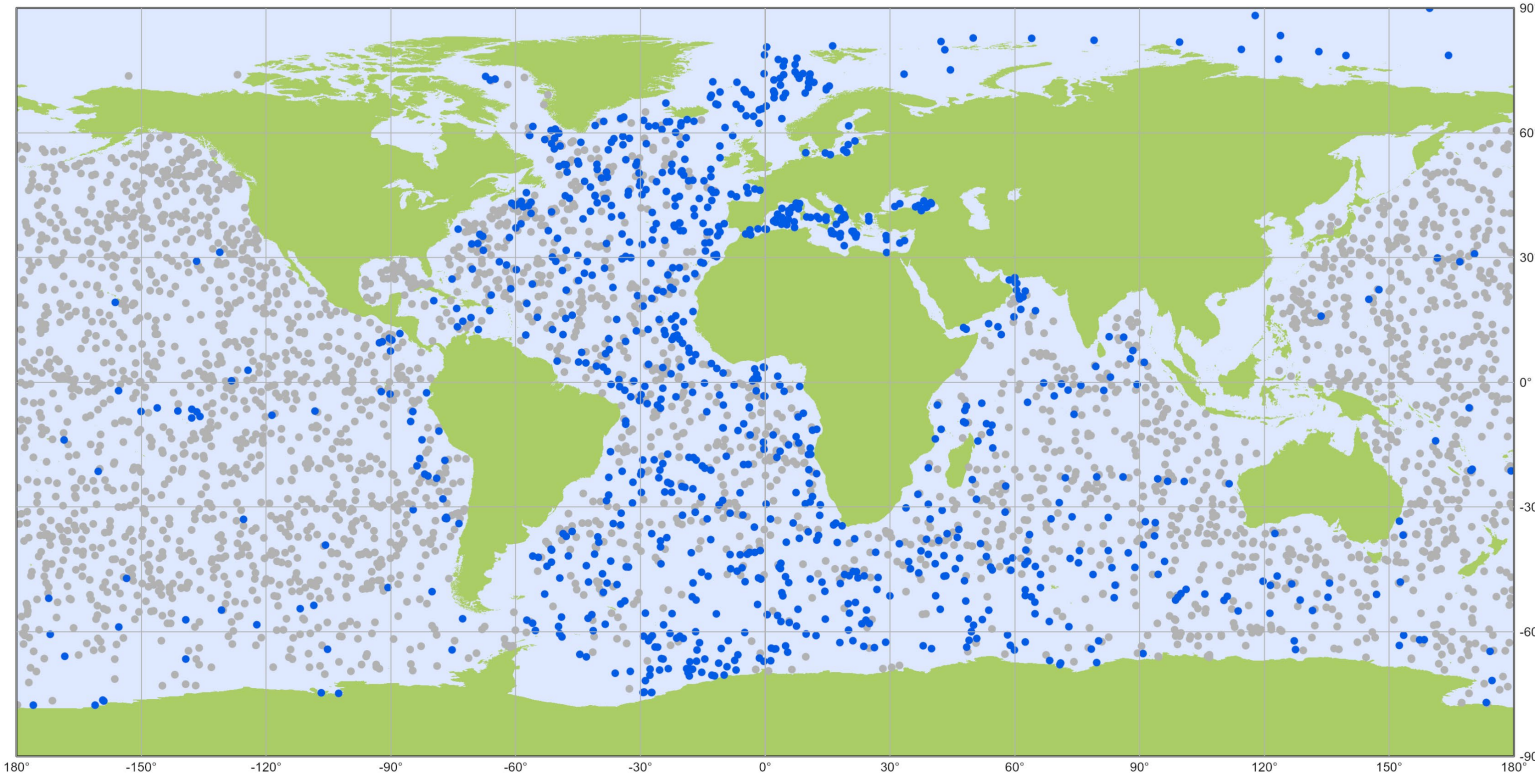
Website: www.eurogoos.eu

ARGO Task-Team

Co-chairs: Griet Neukermans,
Emanuele Organelli, Yann-Hervé De Roeck

- **New chairing structure with 3 co-chairs**
- **New office support: Manuel Sala Perez**

EuroGOOS Annual General Assembly Meeting
19-21 May 2025



Argo

EuroArgo

April 2025

European contribution to the Argo program via EuroArgo Research Infrastructure
Latest locations of operational profiling floats (data distributed within the last 30 days)

• Argo EU (949) • Argo non EU (3107)



Generated by ocean-ops.org, 2025-05-06
Projection: Plate Carree

Forum for non-Euro-Argo ERIC institutions/countries in issues related to planning, deployment, quality control and sustainability of Argo floats in tight collaboration with the Euro-Argo ERIC bodies and members

- Argo TT: 20 members from 15 countries
- Euro-Argo ERIC: 12 members + 1 candidate from 13 countries

⇒ Added workforce: **Belgium, Cyprus, Portugal, Turkey**

**EU: 23% of the
global fleet**

US fleet: 53%

⇒ **Biggest challenges**

Argo design to OneArgo & US potential reduction

Argo Task Team

- **Strengths:** Technical and operational support for Euro-Argo; strong in expanding partnerships and strengthening non-ERIC Argo programs; well-involved in Euro-Argo events like Science and Users Meetings.

Also:

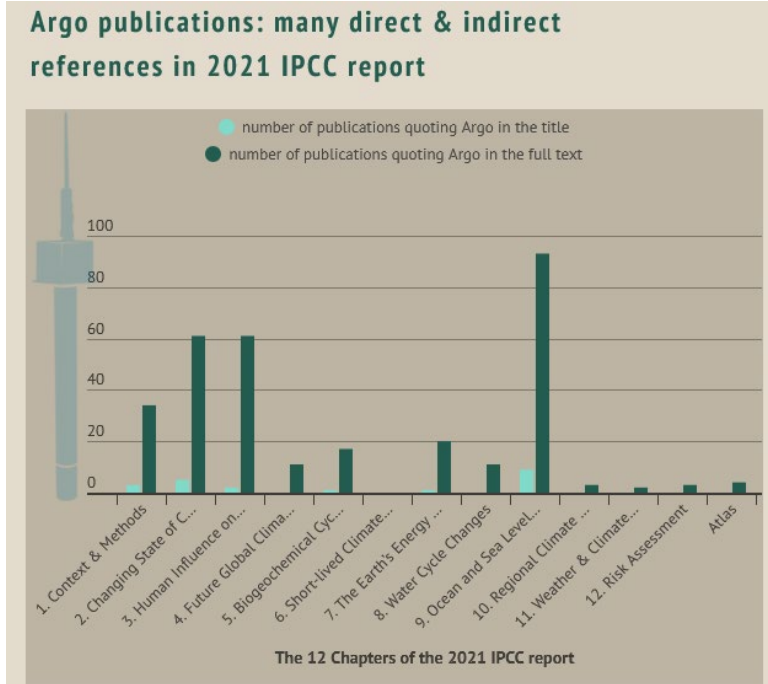
- Invitation to sessions of Euro-Argo ERIC Management Board meeting, preparation meetings of global Argo Data Management Team and Argo Steering Team
- Discussion on Argo operations in Exclusive Economic Zones (EEZ) with OceanOBS
- Presentation of global initiatives & interfaces, e.g., BGC Technology Task Team

Review from Executive Directors Board

- **Questions:** Exclusion of some members from EU proposals, creating tension; difficult national-level engagement; limited advocacy activities or policy engagement; weak public outreach.

Response:

- Euro-Argo ONE project bided to HE2024 INFRA-DEV 02 aimed at fostering ERICs: 5 M€ budget, 80% EC, 20% Members – no floats purchased
- Euro-Argo ONE project has a task devoted to the re-structuration of national programs
- Advocacy activities supported by the ERIC and not reported: e.g, EEA COP-IDEA project, relations Copernicus EE & RIs
- Public outreach supported by the ERIC and not reported: e.g., infographics on IPCC & Argo



- **How can we move forward / suggestions:** Develop clear engagement strategies for stakeholders, enhance public communication efforts, and create advocacy materials for policy influence. Reinforce ties with ERICs and Jerico to improve cohesion.

Response:

- Euro-Argo ONE project WP4 on highlighting the importance of OneArgo in comprehending the global ocean and its correlation with ecosystem functioning and climate (Argo in classrooms, thematic bulletin, Join us leaflet, ...)
- Collaborative EU projects with ICOS, EMSO, JERICO, DANUBIUS: GEORGE, AMRIT, TRICUSO, DOORS ⇒ To be presented/discussed at Argo-TT



Monday 22 September	Argopy training Afternoon	
Tuesday 23 September	Science Meeting - Day 1	
Wednesday 24 September	Science Meeting - Day 2	
Thursday 25 September	Science Meeting Day 3 Morning	Mediterranean Workshop Afternoon

- Open to everyone - funded through the Euro-Argo ONE EU project
- Side events:
 - Argopy hands-on training
 - Mediterranean Workshop
- Meeting webpage

<https://www.euro-argo.eu/News-Meetings/Meetings/Euro-Argo-Users-Meetings/8th-Euro-Argo-Science-Meeting>

Ferrybox Task Team

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

Co-chairs: Andrew King, NIVA and Anna Willstrand
Wranne, Voice of the Ocean Foundation

HIGHLIGHTS

Hereon, Germany:

- Operations are running on M/S Magnolia Seaways, M/S Funny Girl and FB stations in Cuxhaven and Tesperhude. A new ferrybox system is added to the research vessel RV Coriolis.
- Ongoing collaboration with IO-BAS and plans for installation of a ferrybox RV Akademik
- Collaboration with ICOS and development of the Sailbox within the SOOP-platform project.

NIVA, Norway:

- Installation of particulate matter/eDNA sampler on M/S Trollfjord and M/S Color Fantasy as part of H2020 NAUTILUS and H2020 JERICO-S3 projects.
- M/S Richard is a new ICOS station and M/S Color Fantasy had a Imagine Flow Cytobot operational in 2025
- New ferrybox installations planned for M/S Color Hybrid

HCMR, Greece:

- Main priority areas: reactivation and ensuring sustainability of the system, upgrade of the system
- Will host the next Ferrybox Workshop in 2026

CNR, Italy:

- New installation of a ferrybox on the italian research vessel RV Gaia Blu with the main parameters (T, inlet T, S, DO, fluorescence, turbidity, F-DOM), pCO₂, colorimetric pH, and total alkalinity using 4H-Jena instruments.



Magnolia Seaways passing near Cuxhaven FB Station, Germany
Source: H Rust, Hereon



Particulate matter/eDNA sampler on M/S Trollfjord.
Source: A. King, NIVA

HIGHLIGHTS

SMHI, Sweden:

- FerryBox systems have been in operation on merchant vessel Tavastland, on R/V Svea and on coast guard vessel KBV181. Data has been quality controlled and submitted to Copernicus Marine Services
- The ICOS station at M/S Tavastland has been upgraded with a combined pCO₂ and CH₄ sensor.

TalTech, Estonia:

- Tallin-Helsinki ferrybox line is in operation after the new installation
- The ferrybox measurements are part of the national marine monitoring program
- publication of a paper on CO₂ and CH₄ variability in the surface layer and fluxes based on research vessel based ferrybox measurements (Lainela et al., 2024; <https://doi.org/10.5194/bg-21-4495-2024>)

FMI, SYKE, Finland:

- Recent work with plankton imaging and carbonate systems, resulting in two PhD thesis by Kaisa Kraft and Martti Honkanen
- Organising the 12th FerryBox Workshop 1-2 Oct 2024 in Helsinki and two additional metrology-related sessions by the MINKE project
- Operating FerryBox at two Ferrylines (FINNMAID and Silja Serenade) and at fixed station Utö Atmospheric and Marine Station



M/S Tavastland



Ferrybox at RV Gaia Blu

Source: C. Cantoni, CNR

CHALLENGES

- Challenges with funding for operations, reinstallations, maintenance etc
- Change of route for the SOOP lines with no replacement vessels

FUTURE LOOK

- Update of the Ferrybox White Paper (2017)
- Preparation of a peer reviewed paper on scientific outcomes from the Ferrybox community
- 13th Ferrybox Workshop planned in 2026 hosted by HCMR
- Application of new methods on different ferryboxes; pH, pCO₂, eDNA, microliter, IFCB
- Continue to strengthen the collaboration between the related European Ris, EuroGOOS activities and other projects and initiatives.

Fixed Platforms Task Team

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

HIGHLIGHTS

Low-hanging fruit approach

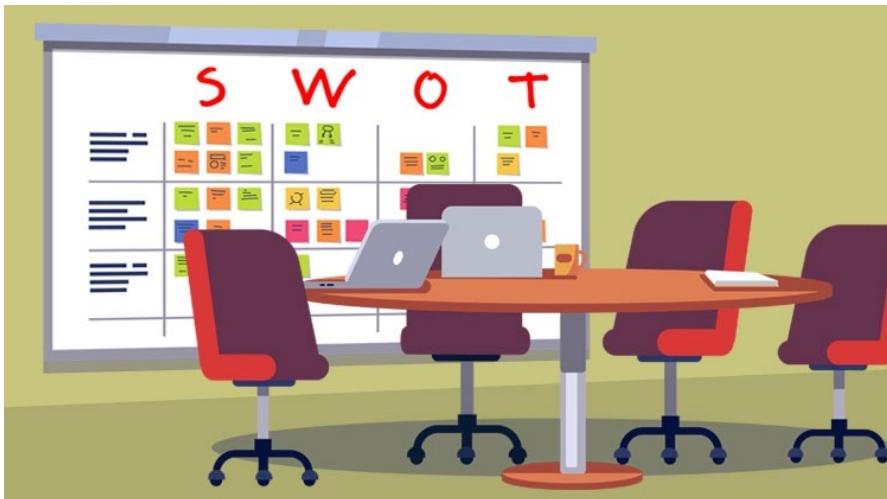
- We actually met (only virtually)
 - May 9, 2024;
 - June 27, 2024;
 - September 11, 2024;
 - April 15, 2025.
- Decided to talk about our facilities:
 - Get to know each other (large turnover);
 - 20-min template presentation for highlighting the problems and the errors made;
 - Identify common issues (sensors working nicely only in some areas, sensitivity measures, community interests).



CHALLENGES

Weaknesses

- Heterogeneity and diversity of the platforms
- Risk of duplication of the activities
- Low external visibility
- Lack of funds



Difficulty in finding the second co-chair

FUTURE LOOK

- calls for nominations for the second co-chair
- monitor member activity and increase country representation (e.g. Finland and Denmark not currently represented).
- consolidate the Task Team Facility databases using proper programming (SQL vs Excel)
- host a series of seminars for assessing estimates for the annual costs to operate a typical fixed platform.
- joint in-person meeting with the HF radar TT at the CNR-ISMAR in Lerici October 7-8, 2025 (funded by the ITINERIS project): dedicated workshop on FAIRness



Glider Task Team

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

Carlos Barrera and Pierre Testor



Glider
EuroGOOS Task Team





Glider
EuroGOOS Task Team

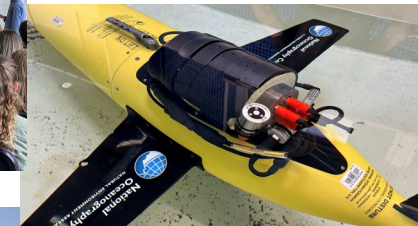
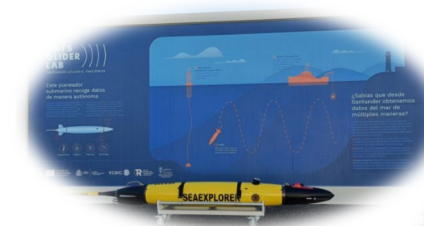


Country	Institution	National POC	EuroGOOS Member
Belgium	VLIZ	W. Boone	
Cyprus	CMMI	D. Hayes	
Estonia	TTU	T. Liblik	
Finland	FMI	K. Tikka	
France	CNRS LOV-IMEV SHOM IFREMER	A. Bosse	
Germany	HEREON MARUM GEOMAR	L. Merckelbach	
Greece	HCMR	E. Bourma	
Ireland	MI	P. Gaughan	
Israel	IOLR	T. Ozer	

Country	Institution	National POC	EuroGOOS Member
Italy	CNR OGS UNI. PARTENOPE UNI. TUSCIA	E. Mauri	
Netherlands	NIOZ	M. Smit	
Norway	UiB APN IMR	A. D. Brakstad	
Portugal	FEUP IPMA OOM IH OKEANOS	I. Martins	
Spain	SOCIB ULPGC AZTI PLOCAN IEO-CSIC	C. Barrera (Chair)	
Sweden	UGOT VOTO	B. Queste	
UK	UEA NOC SAMS BAS CEFAS PML MSS	M. Palmer	

41 Glider Operators (20/21)
16 Countries (12/4)

HIGHLIGHTS

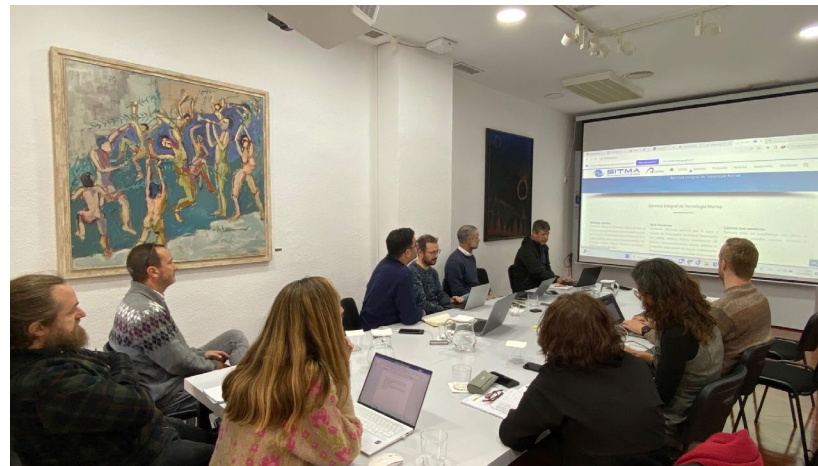


Glider Task Team

- **Capacity Building and Engagement** - New EU institutions/teams operating ocean gliders i.e. Portugal and Spain
- Cooperation and synergies with **EU-flagship projects & RIs** - (AMRIT, TechOceans, Mission Atlantic, POLARIN, SIOS, AQUARIUS, ICOS, EMSO, JERICO, GEORGE, etc.)
- **GROOM-RI**: Policy Brief successfully published (April 2025) + **AMRIT** Contribution
- Strength synergies and cooperation with **international programs and strategies** (OceanGliders, OASIS, IMO, UG2 etc.).
- Inclusion of new **underwater gliders/USV technologies** into the EU glider task force (Sentinel, SeaExplorer-M, Scout, etc.).
- Improvements in **data flow/quality control** through main data aggregators.
- **Dissemination** activities through the main science and technology forums (OSM, OCEANS IEEE-MTS, Ocean Business, Oceanology, EOOS Forum, UG2 webinar, etc.) - **IUGC 2024** – 160 attendees + 100 abstracts submitted
- **GTT Annual Survey 2025** still ongoing (40%)
- Spanish **national glider task force** becomes a reality (December 2024)
- 14th **Glider School** (October 2024) successfully accomplished
- **REPMUS 2024** – Significant ocean-glider contribution

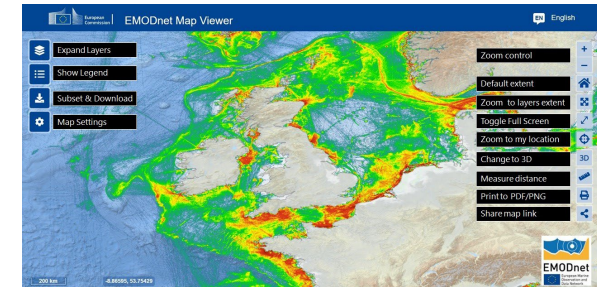
CHALLENGES

- Clarification of the GTT contribution into the “EU/International glider ecosystem” - OceanGliders, EGO, GROOM-RI,... Who is who and for what?.
- Promote active involvement from GTT members (probably derived from previous topic).
- Provide clear data strategy and guidelines to glider operators // Direct impact on type and quality service.
- Lack of coordination and inputs from national delegates (ROOS should play a key role here).



FUTURE LOOK

- Promote and support the **coordination from a national perspective** of the EU glider activities (under GROOM RI leadership) from the best inclusive way possible as a community.
- Deliver clear **guidelines** for operators and support data management to ensure data availability for the Copernicus Marine Environment Monitoring Service (CMEMS), EMODNet, SeaDataNet via the EuroGOOS regional data portals (ROOS) in particular.
- Generate and promote **Standardization and Best Practices** in applications, operations, technologies, data management, and scientific development.
- Promote and consolidate **new observatories** in the European glider array, serving the EOOS framework and supporting EU directives and policies related to ocean observation (i.e. MSFD, MSP, CFP,...).
- Extend the observing capacity with **new piloting capabilities and sensors**, serving excellence in marine science and operational monitoring of the EU seas.
- Build a EU **glider training strategy**.
- Strengthen long-term perspective and planning of **glider areas and lines** and promote sustainability of operations and derived services.
- Open Call for a **new co-chair member**.
- Contribute to **flagship EU projects** (AMRIT, AQUARIUS, etc.) and **international programs** (OceanGliders, OASIS, RedWING, etc.) and initiatives, in close cooperation with industry and other key Blue Economy actors and sectors.



Glider Task Team

HF Radar Task Team

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

HIGHLIGHTS

- Integration of new networks in the operational workflow (NW Med, French coast; Tyrrhenian Sea, Italian coast).
- Periodic revision/update of the documentation of the European standard HFR data model, published on the OBPS repository (<https://doi.org/10.25607/10.25607/OBP-944.2>).
- Publication of the FAIR Implementation Profile of the European HFR community for assessing the FAIRness level of the community.
- Commitment of the EU HFR Node in the new Copernicus Marine Service In Situ TAC tender for integrating HFR-derived wave data in the Copernicus Marine portfolio.
- Establishment of the connection with the satellite community (ESA Mission Advisory Group) for building a common strategy to improve satellite and HFR data combination.



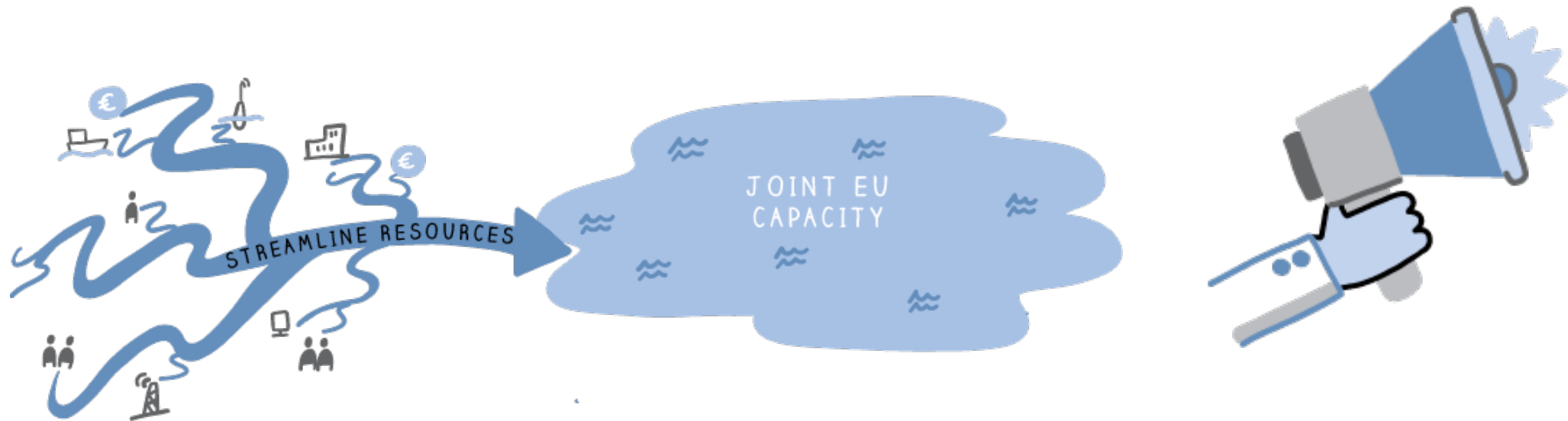
CHALLENGES

- Completing the connection to all the networks contributing in Europe.
- Unlock HFR data potential: boost the integration of HFR data in data downstream services, engage end-users.
- Lack of long term funding. E.g.: the HFR network managed by the University of Plymouth was decommissioned, so currently there are no HFR systems in the UK.
- Progressing in the implementation of the governance / link with JERICO-RI / integration in multiplatform approach.

FUTURE LOOK

- JOINT HF RADAR AND FIXED PLATFORMS TASK TEAM PROGRESS MEETING at CNR-ISMAR, Lerici/La Spezia, October 2025.
- Enhance the FAIRness of the European HFR community by mapping the HFR derived surface current data model to the SOSA ontology and generating the SensorsThing API for implementing the effective M2M accessibility to HFR datasets.
- Development of an AI-based Quality Control method to be applied to HFR-derived surface current data distributed via the Copernicus Marine Service In Situ TAC.
- Endorsement of the European standard data model for HFR current data within OBPS.
- Sustainability of our role in structuring and coordinating the HFR community in the EOOS perspective.





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Lorenzo Corgnati - lorenzo.corgnati@sp.ismar.cnr.it



EuroGOOS Annual General Assembly Meeting

19-21 May 2025

General 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 2024-April 2025)

The 2024 EOOS Technology Forum “Catching the momentum in ocean observing technology: optimising value and data provision” - held on the 13th of March, 2024, at the **Oceanology International conference in London, UK.**

Final report of the 2024 EOOS Technology Forum – readied for publication.

Bottlenecks/obstacles during the reporting period (May 2024-April 2025)

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

Improving in-house participation in activities - developing specific actions for crosscutting collaborations in the EuroGOOS framework.

Enhancing communication with other EuroGOOS bodies - difficulties in establishing WG ambassadors to the ROOSes, TTs and other WGs.

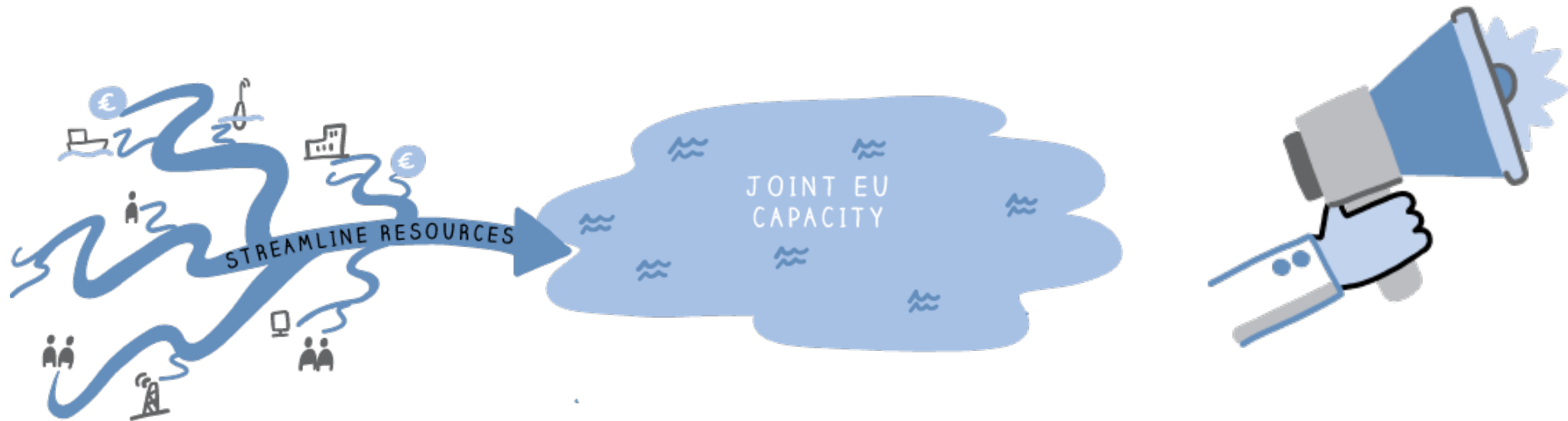
Ensuring funding for WG activities - especially for supporting the EOOS Technology Forum as a regular, openly accessible, international marine observing technology event.

Main priority areas and other major activities (2025-2026)

- 1) Work on the issues concerning the WG highlighted during the EuroGOOS Board & Chairs meeting held recently (06 May 2025, online).
- 2) Carry forward the Technology Forum initiative of the European Ocean Observing System (EOOS) - to continue the efforts to promote synergies within, and between, the public and private sectors to drive development and innovation in the field of ocean observing technologies in Europe.

Links and synergies with non-EuroGOOS initiatives

- EOOS Technology Forum (EOOS Pilot 3.4.1).
- MINKE, JERICO-S3 and JERICO-DS have ended... work towards linking to other EU technology-focused projects like, for e.g., George, Landsealot, AMRIT?
- Contacts with EU RIs like EMSO, ICOS, EMBRC, Danubius, and the JERICO community, etc., should continue to be reinforced.



Rajesh Nair, Laurent Delauney

rnair@ogs.it, laurent.delauney@ifremer.fr

Tide Gauge Task Team

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

HIGHLIGHTS

- Membership - 42 members in 17 countries, recent recruit from Morocco, working to identify members in Egypt
 - Contributing to GLOSS sensor comparison working group integrated with proposed GNSS-IR Special Interest Group
 - Working to integrate Tide Gauge Metadata Inventory/Data Portal with a GLOSS tool
 - Participated in IAPSO tidal analysis working group with recommendations report in development
 - Following the recommendations of the EuroGOOS Board review, we have distributed a questionnaire to members to refine objectives and address the recommendations for All WG/TT
- 

- **Strengthen National Strategy Connections:** Encourage explicit references to national priorities in ToRs and activities.
- **Improve Public Engagement:** Develop comprehensive outreach plans that enhance awareness of WG contributions.
- **Enhance Collaboration:** Foster synergies between WGs, TTs, and ROOSs to promote knowledge exchange and integration.
- **Membership Expansion:** Encourage active membership expansion for better representation across EuroGOOS nations.

CHALLENGES

- Identified the need for a data quality control workshop but have struggled to identify funding
- Co-chair Claire Fraboul resigned with no replacement yet. Co-chair Angela Hibbert due to step down
- We need to reinvigorate the TT and find new chairs and co-chairs

FUTURE LOOK

- Contributing to the development of a new GLOSS implementation plan
- Contributing to the WMO Integrated Global Observing System (WIGOS) Rolling Review of Requirements (RRR), which is a structured process that supports the development of global observing systems
- Contributing to the update of the GLOSS GOOS network specification sheets
- Participating in new GLOSS working groups on data recovery, sensor comparison, and quality control and data management

Coastal Working Group

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

HIGHLIGHTS

AI White paper Draft

- First draft ready
- Regular meetings
- Planned submission within 2025

Use of Artificial Intelligence in coastal applications: Best practices

[Abstract](#)

[Introduction](#)

[Thematic applications](#)

[The use of machine learning in coastal thematic applications](#)

[Coastal community experience](#)

[Data Science requirements for Digital twining of the land-ocean continuum](#)

[Requirements to integrated land-ocean continuum monitoring](#)

[Requirements to coastal physics](#)

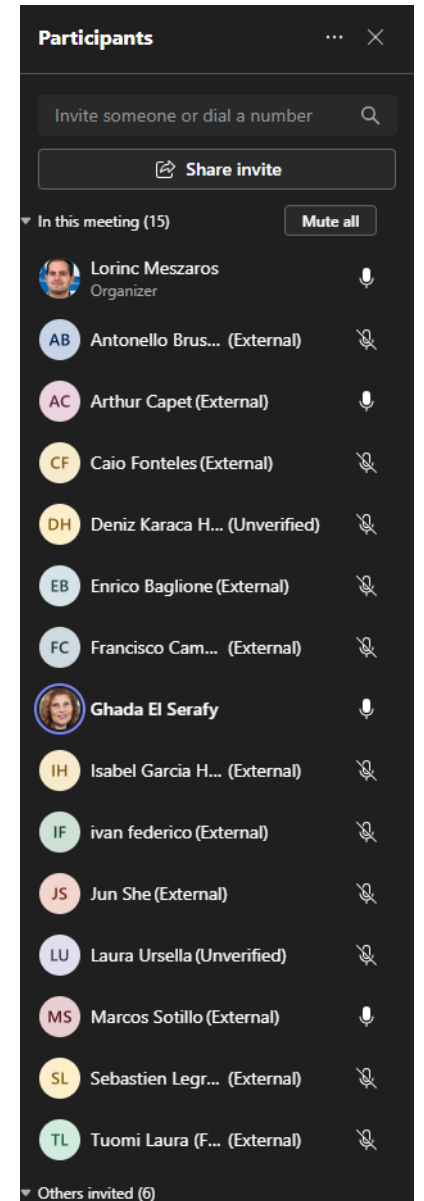
[Requirements to coastal biogeochemistry](#)

[Requirements to coastal products and services](#)

[Requirements to link to the \(European\) Digital Twin of the Ocean \[MOI, DMI, Deltares, HEREON\]](#)

[Recommendations for future applicability](#)

[References](#)

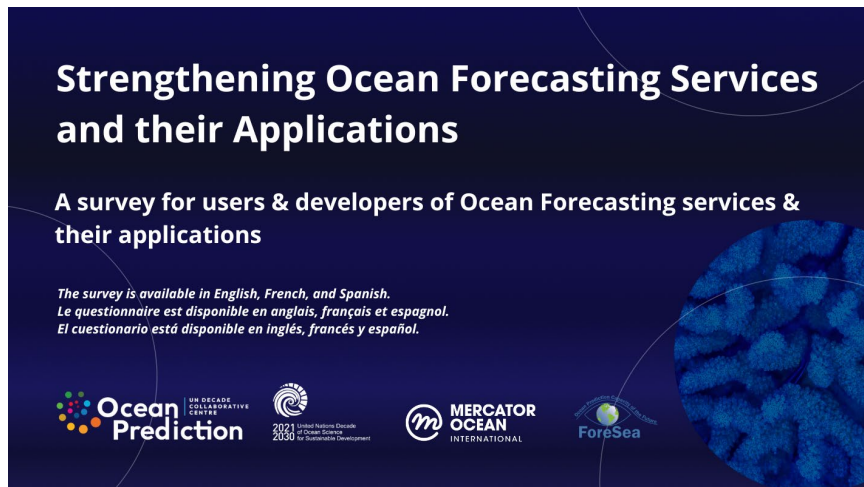


HIGHLIGHTS

Coastal WG acting as a focal point for the **OceanPrediction DCC NE Atlantic Regional Team**

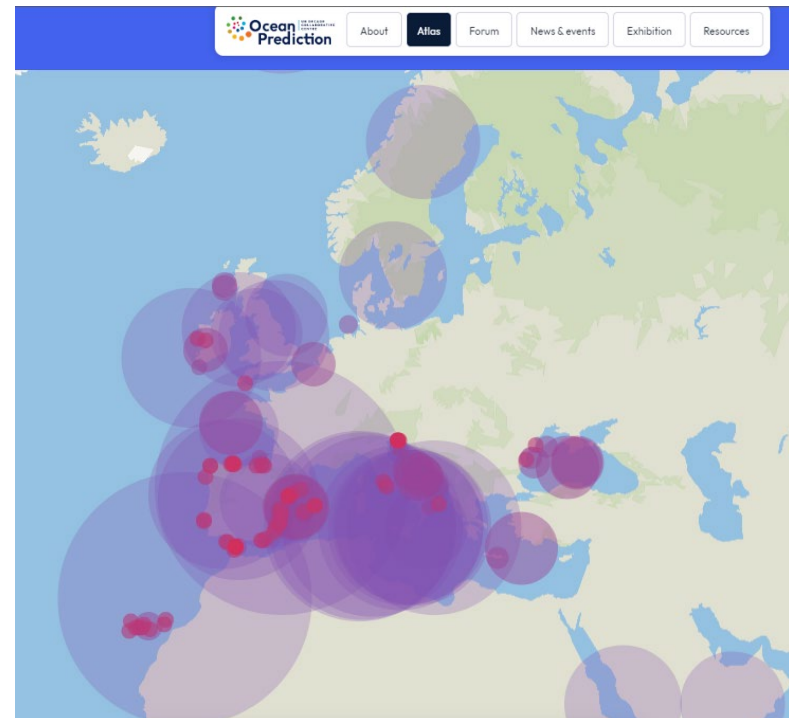


Launched new survey on gaps:
fill in by **July 15**



<https://forms.office.com/e/HBtwKSTV8Q>

Atlas
> 100 forecasting systems included



UNOC 2025

Register to the online
European Digital Ocean Pavilion during 2025 UNOC in Nice

 3–13 June 2025

 Online Access – Free

Agenda & registration:

<https://www.digitaloceanpavilion.eu/content/online-program>

HIGHLIGHTS

Arthur Capet (CWG co-chair) and
Mercator Ocean International
launched the [FOCCUS survey](#)



FOCCUS Survey

Copernicus products in coastal forecasting centers

The Horizon Europe FOCCUS project aims for a coastal extension of the Copernicus Marine Environment Monitoring Service.

This survey aims to document the current use of Copernicus products by coastal forecasting centers, and is thus addressed to the developers and maintainers of such forecasting systems. Thanks to your contributions, we aim to guide the roadmap towards a future enhanced integration of the open ocean and coastal operational oceanography systems.

For efficiency, we will complement your contribution by collecting information on your forecasting system from the [Ocean Decade OceanPrediction Atlas](#). Although not mandatory, please consider registering to this Atlas before addressing the present survey.

This survey addresses different topics : physical oceanography, biogeochemistry, waves and sea ice. Feel free to send this survey to anyone in your organisation who may be able to answer one or more parts of it.

For any inquiries, please contact acapet@naturalsciences.be.

Start press Enter ↵

© Takes 7+ minutes



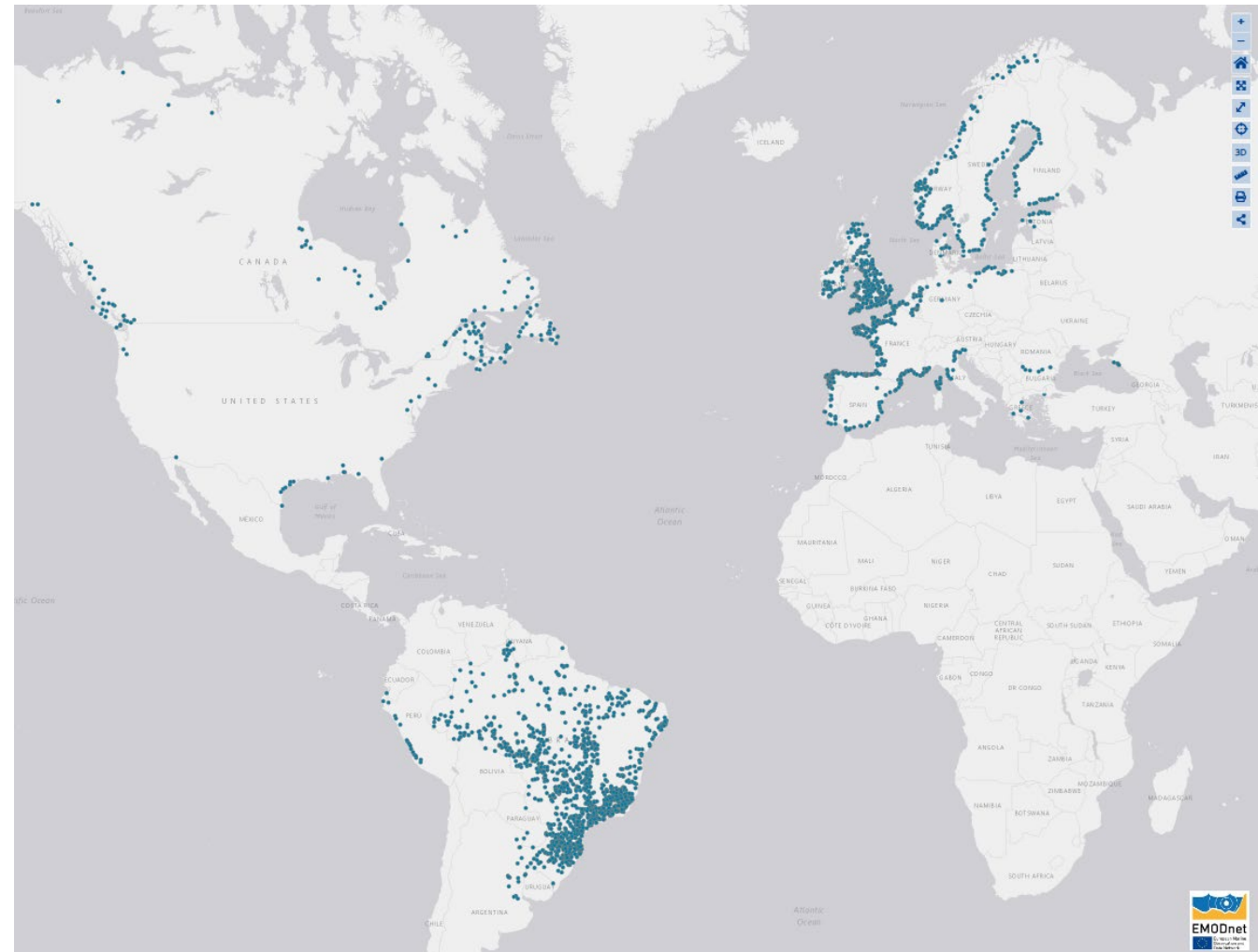
FOCCUS

HIGHLIGHTS

River Datasets

The EMODnet Physics River runoff operational product is developed in collaboration with CoLabAtlantic+, as part of the FOCCUS project and EuroGOOS Coastal Working Group activities

Contact: Francisco Campuzano



Status as of May 2025

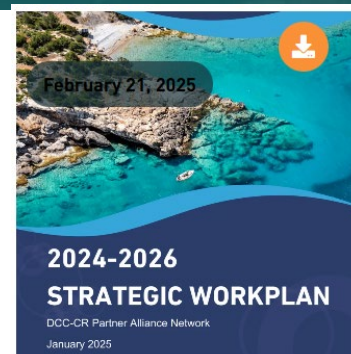
HIGHLIGHTS

CMCC and Deltares from the Coastal WG launched the [DCC-Coastal Resilience](#) Partner Alliance Network

DCC-CR, CMCC, AND DELTARES FORMALIZE THE PARTNER ALLIANCE NETWORK TO STRENGTHEN COASTAL RESILIENCE

Ocean Decade Collaborative Centre for Coastal Resilience

February 21, 2025



The Decade
Collaborative Centre
for Coastal Resilience
Strategic Workplan



The Decade
Collaborative Centre
for Coastal Resilience
Action Plan

Ongoing and upcoming events:

- Coastal Resilience webinar series (co-organized with CMCC and Deltares):
<https://centri.unibo.it/dcc-cr/en/events>
- Itinerant Summer School on Coastal Resilience planned for April 2026 in Tunisia (TBA)

HIGHLIGHTS

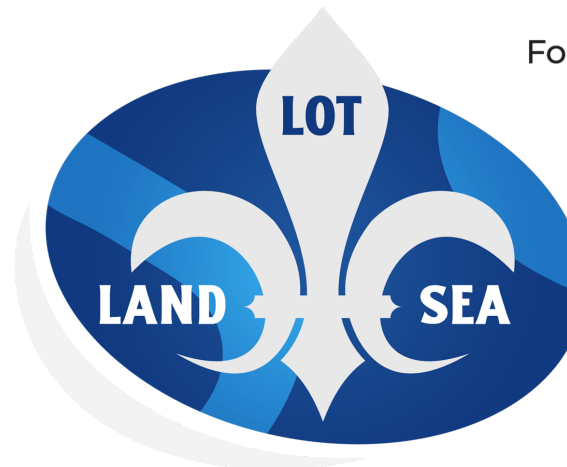
Active participation in shaping the:

- Coastal extension of the Copernicus Marine Service (FOCCUS)
- European Digital Twin Ocean coastal modelling capabilities (EDITO-Model Lab)
- Observing networks of the land-sea interface (LandSeaLot)

European Digital Twin Ocean



Forecasting and observing the open-to-coastal ocean
for Copernicus users



CHALLENGES

- Changing international landscape on coastal monitoring where the Coastal Working Group has to fit in (OcenPrediction DCC, CoastPredict, Coastal Resilience DCC) *[turned into opportunity]*
- Personnel shortages within the EuroGOOS Office and changes in the Officers for the Coastal Working Group *[still a challenge]*

FUTURE LOOK

Priority areas for 2025-2026

Action 1: **Data Sciences**

- Submit White paper in 2025

Action 2: **River Datasets**

- Continue updating 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.

Action 7: **Citizen Science/low cost sensors/...**

Action 8: **Coordination** + Connections within EuroGOOS and beyond (international collaboration)

FUTURE LOOK

Joint collaboration on funding opportunities

- Horizon Europe 2026 calls
- COST Action ?



DataMEQ Working Group

Data Management, Exchange and Quality

EuroGOOS Annual General Assembly Meeting

19-21 May 2025

V1.0.0

HIGHLIGHTS

DataMEQ – WOD GTSP – IQuOD – SOOP XBT – Gosud joint meeting
11-15 November 2024 Bologna

A one day DataMEQ meeting open to our international colleagues

Three sessions

- Data Traceability
- Artificial Intelligence, what uses to address within the DataMEQ activity ?
- Towards cloud-native workflows for DAC/GDAC architecture

Objective

- Share and publish Standard Operating Procedures - SOP to be documented and published on Ocean Best Practices – OBP

Meeting report <https://doi.org/10.13155/104272>

HIGHLIGHTS

IODE-28 et IODC-3 conference Santa Marta, Colombia

10-14 March 2025

EuroGOOS data policy underpinning the Ocean Decade digital ocean ecosystem

- European implementation of IOC data policy
- Data policy implementation: A sustained engagement for FAIR data
A focus on Data traceability policies, an ecosystem of PIDs Permanent Data Identifiers

HIGHLIGHTS

DOORS Black Sea webinar

03-04 April 2025

- International marine data initiatives and regional partnerships
- Introduction to EOVs for physical and biogeochemical parameters

DataMEQ and SeaDataNet joint activity : [ExV vocabulary](#)

- The GOOS **Ocean** and **Climate** essential variables registered on SDN-NVS vocabulary server

Contribution to **AMRIT** EU project (2024 – 2028)

All Marine Research Infrastructures Together, preparing the EOOS TSC Technical Support Centre

- AMRIT collaborative software development platform DevOps CI-CD
- EOOS - operational oceanography dashboard
- DAC-GDAC cloud native services
 - WMO-WIS2 : data distribution from EuroGOOS networks, starting with Argo
 - Notification - Alert centre based on WMO-WIS2 cloud architecture (Mosquito MQTT – CloudEvent – OGC – DCAT - Alerta)
 - GDAC : transition from FTP architecture to cloud services
 - DAC data processing chains in a container
 - ARCO data formats (Analysis Ready Cloud Optimized)

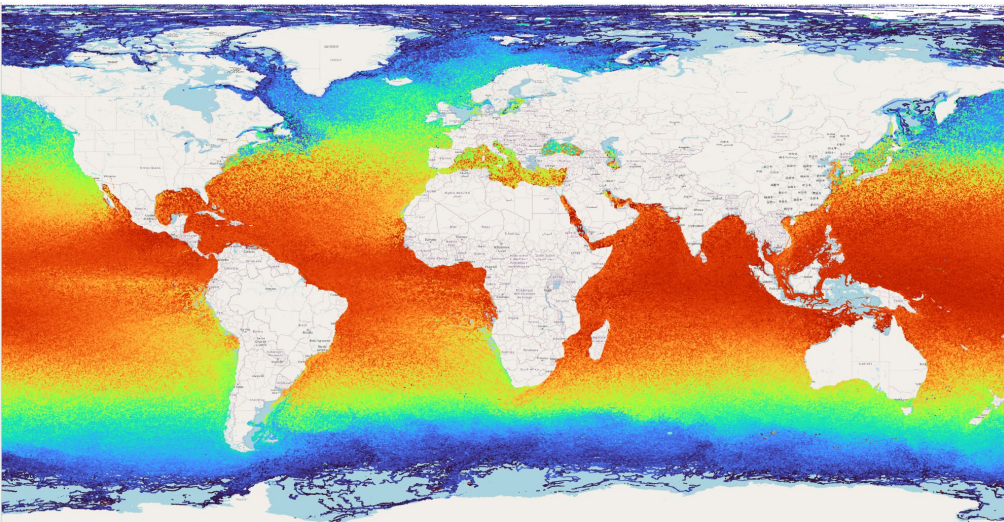
HIGHLIGHTS

Links and synergies with major EU activities

Contribution to **Copernicus Marine in situ service**

New 3 years contract

- New EOVS: carbon (coastal – glodap – socat)
- Drifting buoys current product from Copernicus marine in situ (formerly from NOAA-AOML)
- In addition to file format checker, a NetCDF file content checker



Copernicus drifters data, 240 million temperatures from 30 000 buoys

CHALLENGES

DataMEQ 2024 workplan reminder

- OceanGliders NetCDF format implementation
- SeaDataNet NetCDF and vocabularies for Ship-ADCP
- Towards Cloud native workflows for DAC/GDAC architecture
- DOI policy for data publication
- Consider potential interaction on AI with TTs and WGs (Task Teams and Working Groups)

FUTURE LOOK

EuroGOOS **real-time** data distribution to WMO **WIS2**

- Implement this cloud native architecture
- Address the 6 EuroGOOS Task Teams

EuroGOOS **real-time and delayed mode** data distribution to UNESCO IOC **ODIS**

- Implement STAC catalogues to push metadata towards ODIS (and others)
- STAC is based on FAIR OGC standards widely used by Copernicus (DIAS, MDS), NASA, etc
- ...
- Fine granularity for spatio-temporal-ExV data subsetting
 - in situ (3 million profiles, thousands cruises, ...)
 - satellites
 - models

FUTURE LOOK

- Scientific and data publication: push publishers acknowledge the DOIs of our observation networks.
RDA complex citation working group: by properly managing PIDs with citation statements, aggregators like Copernicus and EMODnet will accurately credit data providers.

Towards Cloud native workflows for DAC/GDAC architectures

- Today's data workflows are based on unsecure FTP or inefficient HTTPS protocols
Switch to a cloud native ARCO formats - Analysis Ready Cloud Optimized
 - No need to download, data is directly usable and up to date
 - Every version of data is preserved and accessible
- Funded by EU projects including
 - EOSC AMRIT : cloud data flows and EOOS dashboard
 - EOSC ENVRI-Hub-Next (downstream data services from ERICs)
 - EOSC FAIR-EASE (ENVRI), EOSC Blue-Cloud 2026: cloud VREs
 - Copernicus Marine Data Store – MDS

Semantic web and AI, a new domain for DataMEQ

- How to preserve and publish AI training datasets such as millions of annotated images (Fair-Ease Ecotaxa, iMagine for EMSO)
- How to preserve and publish trained models
- How to feed LLMs with reliable and controlled information from ERICs

EMSO – Argo – MARINERG-i submitted an EOSC Oscar project : SEAFOG

A semantic description of Research Infrastructures, encompassing headquarters to facilities, instruments, data, and publications.

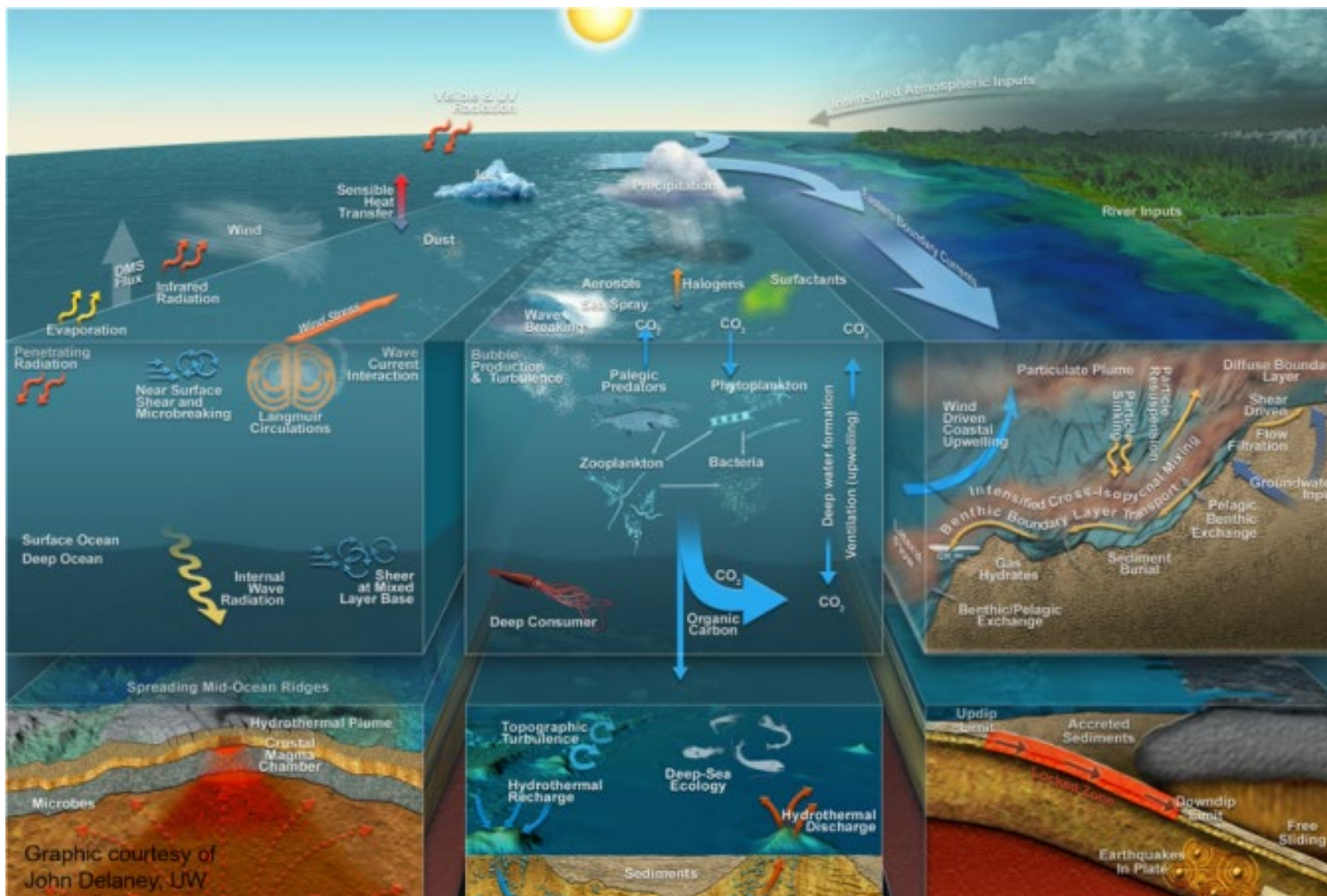
A well-managed **knowledge graph** description showcases and explains the capabilities of the ERICs. This description feeds generative AI models (LLMs) with reliable and controlled information, enabling accurate responses to prompts concerning ERIC assets.

The ERICs' semantic web will be a valuable resource for the EOSC (European Open Science Cloud).



Ocean Literacy Working Group

EuroGOOS Annual General Assembly
Meeting
19-21 May 2025



Oceanography is a multidisciplinary science involving observation, experimentation, and modelling of physical, chemical, biological and geological processes. Source: United States Naval Academy. Graphic courtesy: John Delaney. From Hydro International.

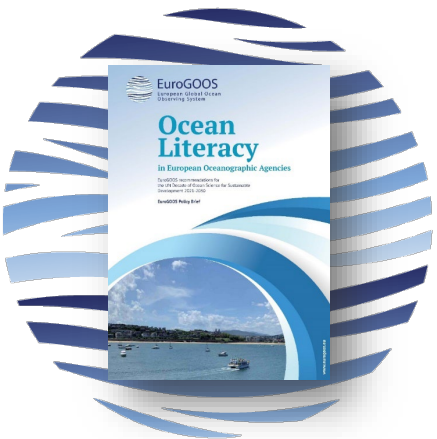
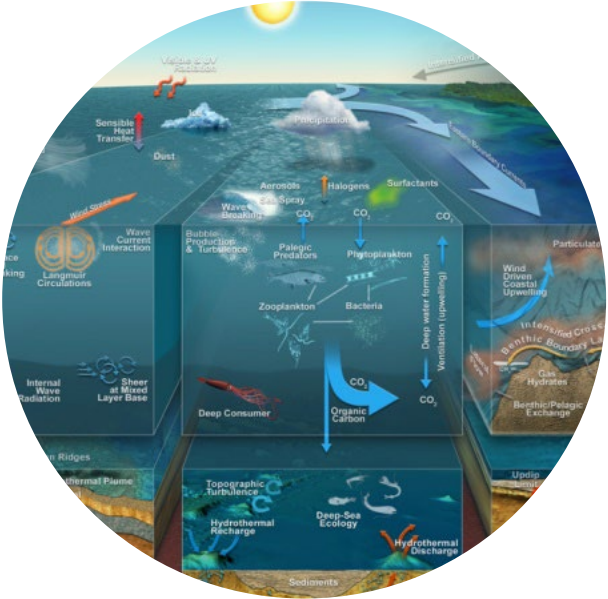


Martin Parr. Beach Therapy series. 2018. Credit: Martin Parr

OLWG – raison d’être

Knowledge is not about knowing, but about sharing!

Jovan Jovanović Zmaj (Serbian poet and journalist)



www.eurogoos.eu/oceanliteracy



Visit the Ocean Literacy Resource Library



Scientists for Ocean Literacy

#EuroGOOS_OL | #Scientists4OceanLiteracy



2021-2030 United Nations Decade of Ocean Science for Sustainable Development

Image cropping from:
left – J. Delaney, right – M. Parr

OLWG survey – where are we at with Ocean Literacy in Science?

Key findings:

- Vast representation of scientific disciplines, incl oceanography
- Overwhelming involvement of women
- Most activities for children (gap = blue economy, policy, stakeholders)
- Majority: local and national, 1-2 partners (opportunity = OLWG & Scientists 4 OL)
- 40% have no dedicated budget – volunteering, lack of recognition (gap)
- 90% respondents claim positive impact on their scientific career (opportunity)



ENHANCE OCEAN UNDERSTANDING AND IMPACT

Participate in EuroGOOS Ocean Literacy Survey and help shape the future of ocean science!

Deadline extended to 26 August

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

EuroGOOS
European Global Ocean Observing System

The poster features a circular inset image of a group of people sitting on stone steps in front of a brick wall, engaged in discussion. The background is dark blue with white and light blue text.

Paper drafting in progress (by end 2025)

OLWG chapter – Promoting European OL in scientific institutions

Scientists for Ocean Literacy: Empowering scientists as Ocean advocates. In T. J. Kennedy (Ed.). *Ocean Literacy: The foundation for the success of the Ocean Decade—Volume I: Transforming Education, Research, and Engagement* (Chapter 20). **Springer Nature.**

14 co-authors: 8 EuroGOOS Member Organisations (OGS, AZTI, IZOR, ISPRA, NIVA, HCMR, INGV, CNR) + EuroGOOS Office (lead)
Launch at UNOC3

Priorities outlined:

1. **Foster innovative Ocean observation strategies:** innovation to tackle complexity, policy integration, stakeholders, citizen science
2. **Increase engagement:** bridge the gap between marine research and societal goals -> sustainable Ocean practices
3. **Focus on diversity and inclusivity:** ocean as the connection, accessibility to all audiences, partnering with education, social services, and other sectors
4. **Leverage digital tools:** expanding the reach of Ocean Literacy
5. **Foster partnerships:** collaborations with education, social sciences, arts, and others
6. **Strengthen national and regional collaborations:** engage both coastal and inland communities, collab across regions
7. **Expand funding and resources:** adequate financial and institutional support, attraction to young talent
8. **Enhance impact monitoring:** win-win for research as for society

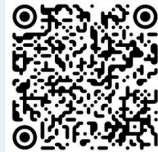
Calling all ocean scientists!

From Lab to Public: Ocean Literacy in Action

22–24 September 2025 | 10:00–12:00 CEST

Online | Open to early-career & mature scientists

Registration:



Organised by:



In support of:

#EU40ocean
#Youth40ocean
#EUBlueSchools



- **European Marine Education Association Conference 2025** (17-19 September 2025, Ostend, Belgium) – Co-organisers: EMSEA, VLIZ, EMODnet, EuroGOOS
- **DOORS Ocean Literacy Network & Ocean Best Practice methodology for OBPS**



Scientists for Ocean Literacy

#EuroGOOS_OL



#Scientists40oceanLiteracy

OLWG – Watch this space

Organised by:



In support of:



With special thanks to:



Strengthen your data skills!

Marine Data for Sustainable Development: FAIR, CARE, TRUST

Training for ECOPs

21–24 October 2025 | 15:00–17:00 CEST



Free on-line training



**2021
2030** United Nations Decade
of Ocean Science
for Sustainable Development

OLWG Call:

Nominate your Ocean Literacy practitioners,
ECOPs, and interested scientists!

www.eurogoos.eu/oceanliteracy

Science Advisory Working Group

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

HIGHLIGHTS

New Co-Chair: Manfred Zeiler (since July 2024)

Change in Office facilitator: Dina (since February 2025)

Monthly meetings: c. 10 -15/27 persons

Actions from the GA 2024

- Webinar on low cost technology (organised by Marco Marcelli and the EG Office)
- Webinar on AI/ML in operational oceanography (organised by Manfred Zeiler and the EG Office)

Actions from the ToR (2021)

- Cross-Cutting with ROOS: report of ArcticROOS and NOOS

CHALLENGES

Science/Technology:

- AI/ML: not only scientific aspects but also social and ethic issues
- Low cost technology: opportunity from cooperation with EIT Water (2026-2036)

Integration of ROOS, WG and TT

- limited input by the members
- More information within EuroGOOS by better communication

CHALLENGES

Strategy:

- European Ocean Pact
 - Key Objective 3 “Marine Knowledge” should also cover ocean observation (Statements by EuroGOOS, EuroGOOS members, GOOS NFP)
- EOOS
 - Support for EOOS Steering Committee
 - Related activities in AMRIT, SBEP and other projects and partnerships
- DG MARE: Digital Platform for Ocean Observation
 - First step of the towards a coordination of ocean observation
 - Next step/question: how do we want to be coordinated by the EU?
 - Another step/question: how can the EU support us in our efforts for a national sustained funding of ocean observation?

FUTURE LOOK

SAWG Meetings:

- Agenda better connected to the aims in the ToR of the SAWG
 - Dissemination of the minutes of the meeting among the EuroGOOS members
- More targeted communication and better information

Focus in 2025/2026: participation at the ROOS Annual Meetings

- Lucie: IBI-ROOS and MonGOOS
 - Manfred: ArcticROOS, BOOS and NOOS
- Enhancing integration

White Paper
Technological development for sustainable
low-cost marine observations

Follow-up of the webinar “Technological development for sustainable low-cost marine observations”



Accessible ocean observing technology

Date: 04 November 2024, 10:00 – 12:00 CET

Moderation: Marcelli Marco

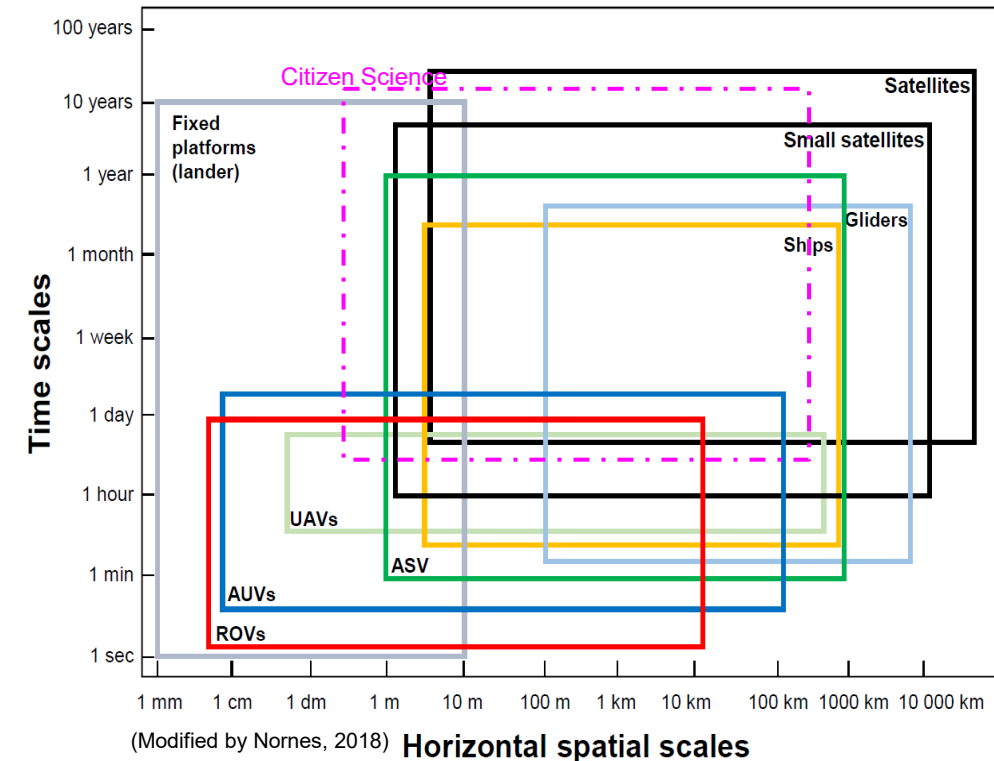
The webinar “**Technological development for sustainable low-cost marine observations**” was attended by over 60 participants and featured excellent presentations by:

- Patrick Gorringe (SMHI): “Innovative, cost-efficient, marine observations: an Ocean of Opportunities”
- Viviana Piermattei (CMCC): “Low cost sensors development for cost efficient observing systems”
- Riccardo Valentini (Tuscia University): “Emerging IOT technologies for cost-effective monitoring applications”

Presentations were followed by an intense open discussion between participants and the speakers, an opportunity to deepen all these aspects and giving rise to potential new EuroGOOS activities, such as to contribute to these topics by the preparation of a white paper.

Enhancing Coastal Ocean Observations: key needs and requirements

- **Spatial and temporal scales** of the oceanographic and ecological coastal processes including anthropogenic and climate change drivers
- Development of scalable, **low-cost technologies** to fill data gaps in under-monitored regions and key variables (i.e. biological ones)
- The marine **coastal areas** need the development of an integrated **multi-disciplinary** coastal observing system
- Inclusive and co-designed approach to support **Citizen and Community Science** to expand monitoring coverage, **democratize** the research, improve capacity building, management and knowledge sharing



Low-Cost platforms

Mooring of opportunity
Citizen Science
UAV (Unmanned Aerial Vehicle)
Specific developments
i.e. OpenMods
Low-cost drifters

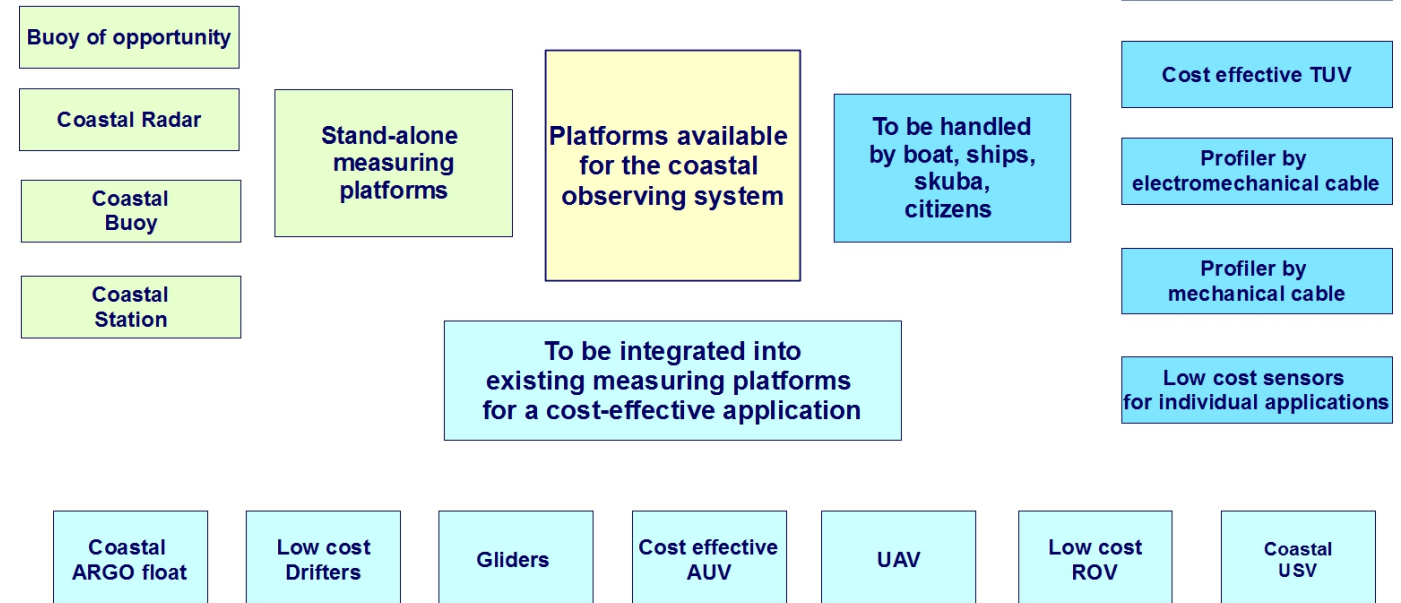
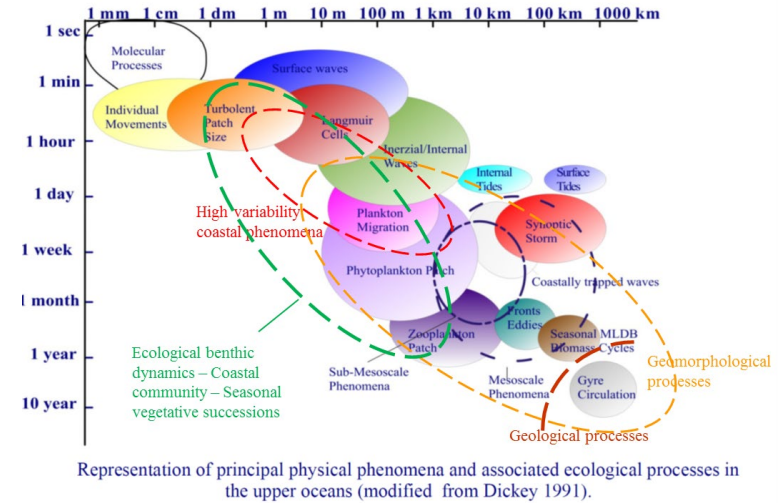
Cost-Effective platforms

ROV (Remotely Operated Vehicle)
ASV-USV (Unmanned Surface Vessel)
Glider
Argo
AUV (Autonomous Underwater Vehicle)
Coastal ship of opportunity (Fishing boat, Coastal Guard, etc.)
TUV (Towed Undulating Vehicle)

Why low-cost and cost-effective technologies?

Reducing Costs in oceanographic data acquisition and data transmission allow:

- Enhance Spatial and Temporal Coverage
 - Improve Sustainability of Observing Systems
- addresses limitations of current monitoring, especially in under-monitored areas
- Support for **Citizen Science** and **Research Democratization**
 - Contribute to **bridge Gaps in Biological Ocean Observations**
 - Support for **Forecasting and Remote Sensing**, providing essential inputs for numerical models and satellite calibration and validation



White Paper Ambition

To promote low-cost technologies for the implementation of sustainable coastal observing systems and to support open-ocean and deep-sea observing systems

White Paper Focus Topics

1. Low-cost sensors
2. Reliability of low-cost sensors
3. Best practices and quality control
4. Low-cost data transmission systems
5. Cost-effective Observing Platforms
6. Machine learning techniques applied to data quality assessment
7. Available low tech and open-source technologies hardware and software

Buoy of opportunity



Low-cost
multiparametric
probes

ArLoC
Piermattei et al., 2018



Animal Borne Ocean
Sensors - oxygen sensor
(CNRS)



Open CTD
Thaler et al., 2014

Low-cost drifters



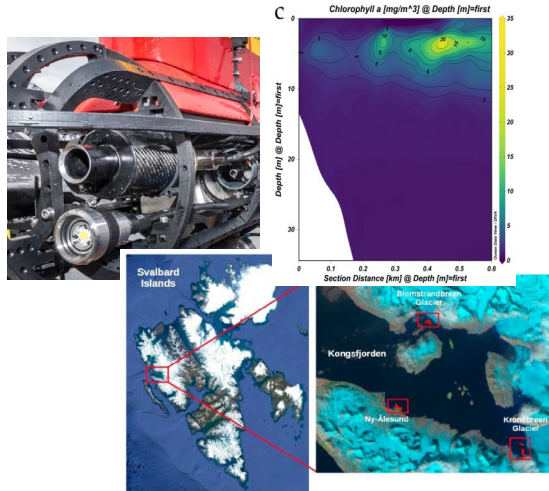
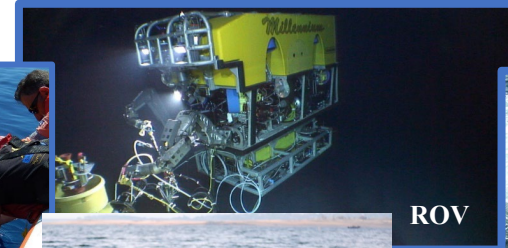
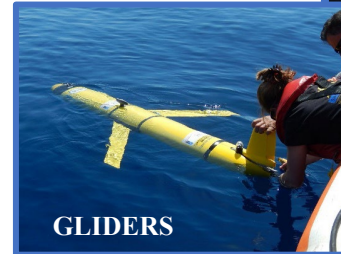
Citizen science



White Paper General Purposes

Technological innovation

To encompass technological innovation, practical implementation, and interdisciplinary collaboration, serving as a resource for researchers, policymakers, and educators



Low-cost sensors potential

To explore the transformative potential of low-cost sensors and technologies in advancing coastal and oceanographic observation systems, also identifying the critical issues to overcome for extensive use

EOVs for Low-cost and cost-effective

To develop a detailed proposal to define a subset of EOVs specifically tailored for low-cost technologies, including citizen science initiatives, thereby enabling broader and more equitable participation in global monitoring efforts

Identify the necessity to improve GOOS groups and EOVs

To contribute to the establishment of a dedicated team focused on the GOOS Essential Ocean Variables (EOVs) for coastal observing systems, an issue critical to advancing our understanding and management of coastal environments, which requires precise and standardized monitoring frameworks

Main Contents

Technological Landscape

Reviews the state-of-the-art in ocean observation, covering traditional and emerging platforms, highlighting the need for cost-effective alternatives

Low-Cost Sensors and Tools

Explores technological advances in affordable sensors for key ocean parameters, emphasizing modularity, open-source integration, and user-friendliness. These innovations are transforming access to data collection in various marine environments

Applications of Low-Cost Technologies

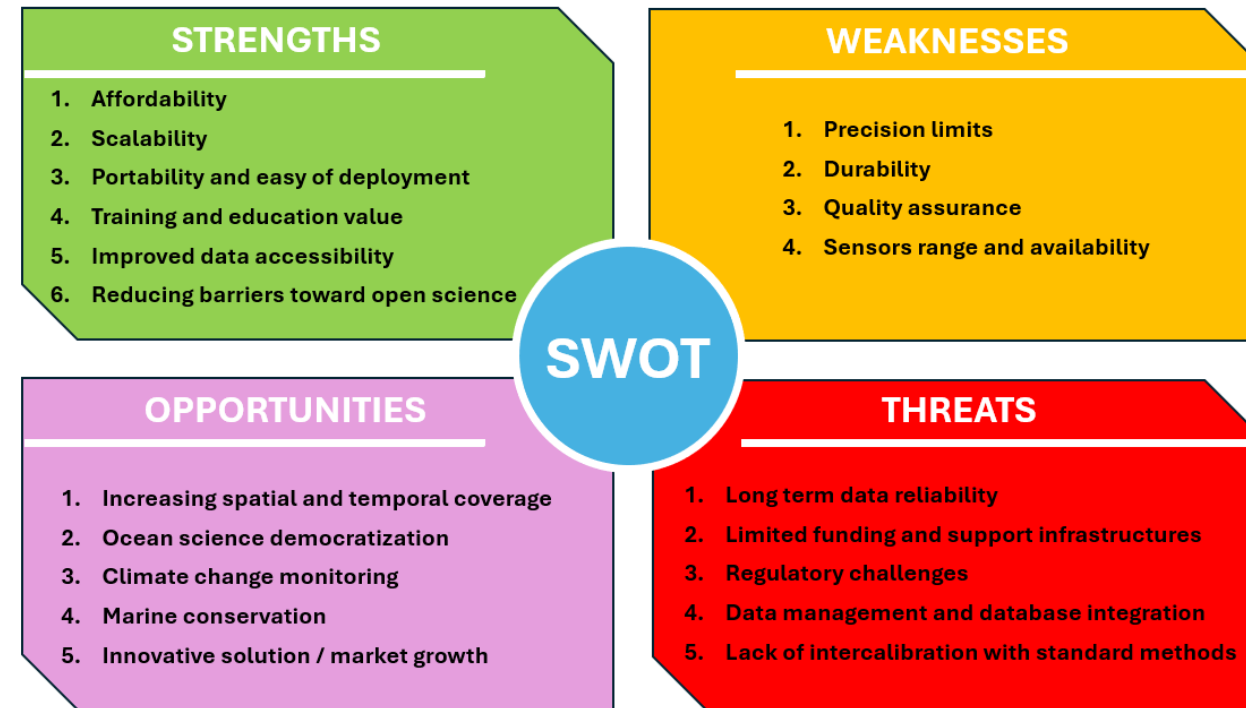
Demonstrates their use in coastal systems, deep sea, fisheries, environmental monitoring, and climate research, often through citizen and community science

Benefits of Low-Cost Approaches

Demonstrates how these technologies reduce costs, increase observation density, and empower local communities. They enhance data availability, support education and training, and help meet the UN Ocean Decade goals and Sustainable Development Goals (SDGs)

Challenges and Limitations

Identifies technical and operational barriers such as sensor calibration, environmental durability, data accuracy, and integration with existing high-standard systems. These challenges must be addressed for reliable and sustained observation networks.



Main Contents

Best Practices for Implementation

Suggests protocols for calibration, intercomparison, and data management, with emphasis on quality control and integration with standard sensors

Future Innovations

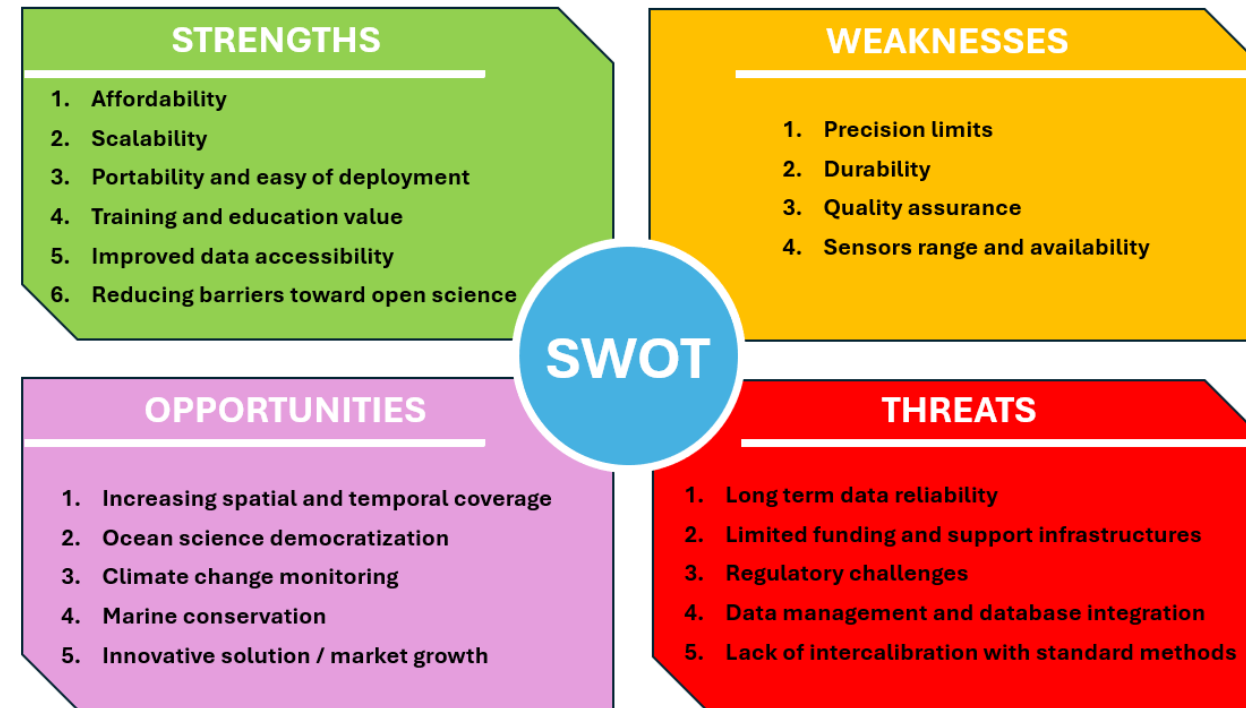
Highlights emerging technologies, AI/machine learning, and data transmission (e.g. IoT), aiming to enhance global, sustainable ocean monitoring

Citizen and Community Science

Advocates for community involvement in ocean monitoring, using accessible tools and participatory methods. Citizen science improves data density, fosters environmental stewardship, and bridges gaps between local knowledge and scientific research.

Policy and Governance Recommendations

Encourages frameworks to support development and deployment of affordable observation systems, including funding, partnerships, and open data policies.





Open Space on EuroGOOS Integration

20 May 15:20-17:30

Objectives

- Stimulate collective thinking on integrating EuroGOOS activities across themes, groups, and disciplines and stakeholder interactions
- Map challenges, opportunities, and actionable ideas for stronger integration
- Key focus areas:
 - (i) interaction and engagement – among WG, TT, and ROOS
 - (ii) interaction and engagement – with all EuroGOOS members
 - (iii) interaction and engagement – outside; system integration at European level

5 groups / 5 topics / 3 rounds

TOPIC 1. Interactions between WG/TT/ROOS

Moderator: **Marcello Magaldi**

TOPIC 2. Coordinated interactions between the WGs/TTs/ROOSs and different stakeholders

Moderator: **Ghada El Sarafy**

TOPIC 3. Mobilisation of members contributions

Moderator: **Manuel Sala**

TOPIC 4. Expectation from the EuroGOOS members for the WGs/TTs/ROOSs

Moderator: **Dina Eparkhina**

TOPIC 5. Integration for enhancing the impact

Moderator: **Sébastien Legrand**

25min

First round

25min

Second round

25min

Third round

30min

Presentation of Outcomes by the 5 Moderators 5 x 5min

Biological Observation Working Group (BIOWG)

EuroGOOS Annual General Assembly Meeting
19-21 May 2025

Co-chairs: Vera Fonseca & Mauro Celussi

HIGHLIGHTS

ToR- Defining our scope, outputs, and governance for BLOWG success



Mission

Harmonize methods and data-sharing for biological observations across all EuroGOOS partners



Key Deliverables

- White Paper:** Molecular & imaging technologies for marine observations (draft June '24; final Sept '24).
- Monthly Reports:** Summaries of activities, decisions, and action items



Governance & Membership

- Co-chairs elected Mar '24 to steer group activities.
- Rotating membership with equal contribution and term limits.

Key Milestones & Meetings

Dec '22	Mar '24	Jun–Sep '24	Apr '25	May '25
 Paris GOOD attendance	 Villefranche POOR attendance	 White Paper Draft	 White Paper Finalized	 GA Lisbon Preview
 ToR ratified	 Co-chair elected	• Draft completed • <i>Increased monthly meetings (hybrid format)</i>	• Final delivery	• Review draft in-person

 **White paper delivered !**

Plan vs. Reality



Plan

- Draft by June '24
- Finalize by Sept '24



Reality

- Draft completed Jun '24 ✓
- Finalized Apr '25

Recommendation for implementation of molecular and imaging technologies in marine observations

Nicolas Pade*¹, Vera G. Fonseca*², Luis Felipe Artigas³, Pier Luigi Buttigieg⁴, Wenche Eikrem⁵, Lionel Guidi⁶, Helena Hauss⁷, Kaisa Kraft⁸, Klas Ove Möller⁹, Sirje Sildever¹⁰, Julia Uitz⁶ and Mauro Celussi¹¹

- 1 European Marine Biological Research Centre (EMBRC-ERIC), Paris, France
 - 2 Centre for Environment, Fisheries and Aquaculture Science (Cefas), United Kingdom
 - 3 Université du Littoral, France
 - 4 GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel, Germany
 - 5 Norwegian Institute for Water Research (NIVA), Norway
 - 6 CNRS:Laboratory of Villefranche, France
 - 7 Norwegian Research Centre (NORCE), Norway
 - 8 Finnish Environment Institute SYKE, Finland
 - 9 Institute of Carbon Cycles, Helmholtz-Zentrum Hereon, Germany
 - 10 Tallinn University of Technology, Tallinn, Estonia
 - 11 National Institute of Oceanography and Applied Geophysics – OGS, Trieste, Italy
- *Equal contribution*

14 pages ➡ manuscript preparation

Key takeaway: Monthly reviews helped to keep us on track, but peer-review cycles and people availability delayed final delivery to April 2025

Challenges & Next Steps

 Challenge	 Next Steps
Low participation (~30% members)	• Increase hybrid meetings • Targeted member outreach & onboarding
Limited coordination with other WGs	• Schedule quarterly joint workshops • Actions planned to liaise with Coastal & Data WGs
Manuscript agreement to submit is pending	• Form writing subgroup • Establish deadline: Draft manuscript by October '25 for submission

Future Roadmap & Next Steps

 Objectives	 Collaborations
Finalize & submit peer-reviewed manuscript	Engage with Data WG on metadata frameworks
Reshape group & recruit new members	 Coordinate with MBON, OBON & Ocean Practices
Bottom-up redrawing of tasks for upcoming months	