

## **EuroGOOS Annual General Assembly Meeting Report**

**30 May 2023**

### **Open session (I)**

#### **1. Welcome and adoption of Agenda**

Henning Wehde welcomed all and opened the meeting. The agenda (Doc. 1.1) was summarised and no requests for changes were made by Members.

**DECISION 1:** Agenda adopted.

#### **2. Office report on activities**

Inga Lips presented an update on the Office's activities since the last General Assembly. Details are provided in the Office Report (Doc. O2.1) and in presentation slides. The need for greater further engagement with Chairs and the wider community in the implementation of the EuroGOOS Strategy 2030 was highlighted. The status of actions from the 2022 Integration workshop was summarised, with progress made but several remaining outstanding for the Office and EuroGOOS groups to complete.

The support provided by the Office to different ROOSs, WGs, and TTs was highlighted, with different officers support each group. It was noted that support from the Office to different EuroGOOS groups varies according to needs.

The Office's involvement in European projects was summarised, as was participation in international bodies/committees, and European or international meetings or conferences since the last General Assembly. The Office is additionally contributing to various UN Decade of Ocean Science activities, including the development of the OceanPrediction DCC.

Changes in Office staff since the last General Assembly were noted, as well as absences due to medical leave that has impacted the Office's capacities in recent months. It was further noted that Vicente Fernandez will leave EuroGOOS to take up a new position in June 2023. A replacement staff member is due to start later in 2023. The General Assembly thanked Vicente Fernandez for his major contributions to EuroGOOS over several years working in the Office, and wished him success in his future career.

#### **3. EuroGOOS projects: completed in 2022 and ongoing**

Vicente Fernandez gave an overview of EuroGOOS's involvement in European projects completed, ongoing or proposed since the last General Assembly. Full details are provided in document O3.1 and in presentation slides.

A question was raised on the relationship between All Ocean Obs (CINEA tender) and the proposed AMRIT project. It was noted that the ocean observation reporting tool developed in All Ocean Obs is planned to be utilised by the AMRIT community, and as such duplication has been avoided by not developing an additional tool in AMRIT.

Discussion was held on EuroGOOS' efforts to engage with the Black Sea oceanographic community, noting that the DOORS project should be leveraged as a platform to strengthen collaboration in this area. Ongoing political issues in the region and previous issues with membership fees were noted. It was noted that participation in ROOSs, WGs and TTs does not required EuroGOOS membership or a fee.

The extent of work by the Office team was noted, with a question on capacity. It was noted that there is sufficient capacity in the Office for ongoing and planned activities while staff are present and working.

It was noted that the EEA COINS project should look closely at environmental monitoring catalogues available from DG ENV.

#### **4. EuroGOOS Communication Strategy**

Alicia Blanco presented updates on EuroGOOS communication activities, the development of the EuroGOOS Communication Strategy and planned revamp of the EuroGOOS website. Full details are available in presentation slides.

Work to revamp the EuroGOOS website is ongoing, with the new version planned to be launched at the EuroGOOS Conference in October 2023.

Factsheets introducing each EuroGOOS group are planned. An example draft from the Fixed Platforms TT was presented for illustration.

Feedback received on the most appropriate method of communication within the EuroGOOS community was discussed. Members noted the recently started 'Updates from the EuroGOOS Office' emails were very much appreciated, providing a concise summary of recent activities and internal information. It was noted that the public newsletters are also very valuable, but the regular sharing of internal updates and information for Members only is complimentary, serving a different purpose. It was noted that the newsletter's strength depends on the contributions of Members, who were reminded to send any news or information for dissemination to the EuroGOOS community to Alicia Blanco in the Office (either for inclusion in the subsequent newsletter, or for immediate sharing by email if necessary).

The suggestion was made to gather and disseminate 'success stories' relating to operational oceanography from the EuroGOOS community, in addition to specific news and updates. This would be a good way to promote early career scientists and the real-world impacts of Members' work.

It was noted that there is a huge amount of information available and disseminated. The EuroGOOS Communication Strategy, which is intended to be a living document evolving according to needs, should over time refine messaging to make information shared by EuroGOOS more focused according to its own priorities and Members' activities, and less promoting the news of others in the wider ocean community.

The Kostas Nittis Award was discussed, noting that only few nominations are received each year. Members were encouraged to nominate candidates from their institutions. It was noted that the award can often be perceived as very high-level, and entirely focused on operational oceanography, in which few early-career or young scientists are working. The award is intended to recognise work by early-career scientists whose work can be applied to operational oceanography in some way. It was noted eligibility for the Kostas Nittis Award should be for early-career scientists, rather than 'young' scientists according to age.

It was suggested that EuroGOOS should look to engage more with existing early-career networks for ocean scientists and other professionals in Europe and internationally, such as those established via the European Marine Board and in the context of the UN Ocean Decade. It was further suggested that EuroGOOS groups, including the General Assembly, should look to engage early-career representatives as active participants or observers as a way to expose a new generation to experience of operational oceanography coordination in Europe.

#### **5. EuroGOOS Executive Board of Directors Report**

Henning Wehde presented an update on activities of the Executive Board of Directors, including a summary of major discussions during Board meetings since the last General Assembly. Details are provided in the slides. Board meetings are held on a roughly monthly basis, with 9 meetings held since the last GA, as well as regular discussion via email on urgent matters. An in-person meeting of the Office

and Board was held in March 2023 to discuss the development of activities and strengthened internal and external communication.

It was noted that improvements need to be made to optimise communication and working interactions between the Board and Members, as well as with the Office.

It was noted that the 2022 integration workshop generated many actions for the Board and other EuroGOOS bodies. Many of these have yet to be completed, requiring more interaction with the ROOSs, however many actions have been completed – good progress has been made. It was noted that EuroGOOS integration is an ongoing process, and not an action that can be ‘completed’ overall.

It was suggested to share a list of events where Board members have represented EuroGOOS.

**ACTION 1:** Develop list of events where Board members represent EuroGOOS, and share it with Members (Board/Office, September 2023).

It was noted that generally tasks for the Board are overarching, and not suitable to delegate to individual Board members. Other activities are more specific that could be assigned as specific responsibility of individual Board members.

It was noted that EuroGOOS integration meetings were previously held on a more regular basis and helped to facilitate communication and information flow between the Board and TTs, WGs and ROOSs. The connection between the Board and other EuroGOOS groups is not currently strong, with information not reaching ROOSs so easily, and little opportunity for ROOSs to provide input to decisions made by the Board on behalf of EuroGOOS. This should be improved.

The interaction between BOOS and the SAWG was highlighted as a good example of successful integration between EuroGOOS bodies. The FORCOAST project was also noted as a good example of integration between different partners and users in operational oceanography.

It was noted that the EuroGOOS webinar series is a useful tool to facilitate discussions and promote integration between TTs, WGs and ROOSs, and the Board. A webinar on FORCOAST’s outcomes was suggested. The Office is able to organise webinars as requested, but their content requires input and ideas from Members.

It was requested to make all (public) project deliverables to which EuroGOOS has contributed more easily accessible to Members. These are currently on the EuroGOOS website, but are difficult to find. Planned improvements to the EuroGOOS website will help with this.

**ACTION 2:** Improve discoverability of EuroGOOS project deliverables on the website for Members (Office, October 2023).

Discussion was held on the involvement of EuroGOOS in GOOS, the UN Decade of Ocean Science and other global-scale initiatives. It was noted that Europe is very active in UNDOS, but EuroGOOS is not so visible. Further discussion on UNDOS is covered in agenda item 8.

There was a question to the Office regarding the EuroGOOS contribution to GOOS. Inga Lips explained, that the GOOS Regional Alliance Council is not currently so active due to limited support from the GOOS Secretariat. Trilateral discussions between EuroGOOS, IOOS and IMOS continue outside of the formal GRA Council structure to keep work progressing. It was noted that MONGOOS has had a similar experience of limited support from the GOOS Secretariat. EuroGOOS has always reported to GOOS and the GRA Council whenever there has been a request. It was noted that the capacity and resources of GOOS and the GOOS Secretariat have been an issue for some time.

It was noted that Board or Office members are active in several committees, panels or other activities internationally, but there is limited reporting on these back to Members. This is improving with the ongoing efforts of the Office to improve internal communication within EuroGOOS (monthly updates from the Office). It was noted that there are many international activities ongoing, particularly with UNDOS, which rely on in-kind contributions. The community is increasingly being spread thinly. EuroGOOS needs

to consider its capacities when prioritising involvement in activities and look to engage a larger part of the community than the Board and Office members to participate in activities.

It was suggested to expand the list detailing EuroGOOS' involvement in international initiatives to a matrix detailing who is contributing to what, and how this relates to EuroGOOS and EOOS priorities, and other bodies.

It was proposed to expand future EuroGOOS Annual General Assembly (GA) Meetings to 3 full days to allow more time for discussions between Members, and presentations from external partners and international initiatives. Key European and international partners to invite to future GAs were noted, including GOOS, Copernicus Marine Service/MO*i*, EMODnet, the EMB, other GRAs, and other relevant organisations.

**DECISION 2:** Future EuroGOOS Annual General Assembly Meetings to be held over 3 full days.

## **6. ROOS activities highlights, incl. connections with EuroGOOS Strategy**

### **Arctic ROOS**

Steffen Olsen presented an update on the Arctic ROOS on behalf of newly appointed Co-Chairs Vidar Lien (IMR) and Anna Nikolopoulos (NPI). Full details are provided in document O6.1 and in presentation slides. Highlight activities include a successful online workshop on in situ ocean and sea ice observing in the Arctic, attended by over 100 people in November 2022, and the Arctic ROOS General Assembly held in Copenhagen in May 2023. The Arctic ROOS is also working to ensure a close link with the Arctic regional team of the Ocean Prediction DCC. A new Arctic ROOS Task Team on in situ sea ice observing is planned.

The Arctic ROOS is spearheading an international effort to develop a GRA for the Arctic. An international Task Team has been established to advance efforts, Co-Chaired by Jari Haapala (FMI) and Craig Lee (University of Washington). This Task Team was presented to the GOOS Steering Committee in April 2023, which provided feedback on its plans. Once this feedback is addressed, the Task Team hopes to be endorsed as a GOOS Task Team.

### **BOOS**

Jun She presented an update from BOOS, full details are provided in document O6.1 and in presentation slides. BOOS has a wide range of ongoing activities throughout its own working groups and bi or multilateral cooperations between its members. BOOS has an Argo and glider WG, coastal and estuary WG, data assimilation WG, marine plastic WG, and multi-model ensemble WG. A new working group on machine learning and AI applications in Baltic marine modelling was established at the recent BOOS Annual Meeting in Helsinki. BOOS members are partners in several recently submitted European project proposals. Updates to the BOOS website are being made on an ongoing basis with support from the EuroGOOS Office.

Near real-time CTD data provision in the Baltic was highlighted as a recent achievement from the BOOS community, with work through EEA COINS and INSTAC, led by SMHI.

### **IBI-ROOS**

Manuel Ruiz presented an update on IBIROOS. Full details are provided in document O6.1 and in presentation slides. The first in-person IBIROOS Annual Meeting for several years has been held, in collaboration with MyCOAST project. Several potential new IBIROOS members have been identified, including from the Atlantic archipelagos and from the UK.

IBIROOS activities include actively using GitHub to share code and best practices for modelling and other tools with the community, engagement with an MSFD monitoring project, and significant participation in the HF radar TT of EuroGOOS. IBIROOS is increasing work to develop observing of biological variables in the region, as well as physical.

It was noted that IBIROOS will soon be seeking new Co-Chairs as Manuel Ruiz and Julien Mader are due to step down.

## **MONGOOS**

Vanessa Cardin presented an update on MONGOOS. Full details are provided in document O6.1 and in presentation slides. MONGOOS has 34 members from 12 countries, including from North African countries. MONGOOS' working groups are focused on observations, modelling and applications. The MONGOOS website and logo have been updated with help from the EuroGOOS Office.

MONGOOS is currently engaged in modelling activities as a key partner in the Ocean Prediction DCC, with a focus on the Mediterranean and Black Sea.

Efforts to reengage inactive MONGOOS members are in progress. The next MONGOOS General Assembly will be held in Tangier, Morocco in November 2023 – the first time the meeting will be held in an African country.

## **NOOS**

Sebastien Legrand presented an update on NOOS. Full details are provided in document O6.1 and in presentation slides. NOOS is a ROOS, a network of institutes, and a network of people, focused on the whole North-West Shelf region (not only the North Sea), with over 20 years of activity. The NOOS Annual Meeting was held in person for the first time since the pandemic in Rotterdam in 2022. Potential new members of NOOS have been identified, including from Ireland and Norway. A NOOS Strategy is in development, closely aligned to the EuroGOOS strategy, with regional adaptation and changes according to the community's needs,

NOOS has new chairs for its modelling and model validation groups, both of which are very active. NOOS members are very active in sharing details of their models and discussing their work together.

The erosion of NOOS', and other ROOSs', leading role in EuroGOOS was noted. NOOS is not consulted on strategic issues as often or as thoroughly as in the past. This was suggested as an issue for further discussion with the EuroGOOS Board. Additionally, the lack of funding and other resources for NOOS activities was noted as a difficulty – all NOOS activities are on an in-kind basis.

Discussion was held on the ROOS ambassadors to other EuroGOOS groups, which are actively communicating information back to ROOSs in many cases. Greater communication between the EuroGOOS Board and ROOS Chairs was emphasised as an ongoing need.

### **7. ROOS discussion (incl. long-term vision)**

Henning Wehde introduced the discussion topic, focused on ROOSs, their role in EuroGOOS, interactions with the Board and Office, and their long-term vision. It was noted that ROOSs are well established and have generally reached a level of maturity. New frontiers and challenges for the ROOSs should be identified. Slido was used to gather the thoughts of the GA and to stimulate discussion. Slido questions were:

- What word describes the ROOS achievements so far?





- Going forward, what should be the key outputs of the work of ROOS?



- A SWOT analysis of ROOSs (Annex 4)
- Where do we see the ROOS in 7 years, by 2030?

**Responses:**

- Products-oriented community / A network of ROOSs with harmonised products
- Active/Better/Total/More flexible integration (including with EuroGOOS)
- A network around the EuroGOOS Strategy
- Active, recognised and with a clear purpose
- Integral components of EOOS
- EOOS regional manager
- Regional alliances
- Representing the whole regional Community
- International Entities
- Integrated into intergovernmental overarching structures or Copernicus
- A major contributor to the regional observational program
- Well-established in the community and governance

- All ROOS members will be EuroGOOS Members
- Expand to all themes besides operational oceanography
- Experiencing emerging sciences, products and services at the regional level
- Ocean climate services
- ML/AI for service
- Have a ROOS pilot digital twin
- Arctic ROOS to evolve into a pan-Arctic GRA
- Facilitator of operational data access and services in the Arctic
- In African countries
- New ROOS in the Black Sea region
- New young enthusiastic people

It was noted that ROOSs functioned well in the past and continue to be very valuable for regional coordination of operational oceanography. There are now many new actors in the European landscape than when ROOSs were established. The role and organisation of ROOSs in the community must evolve accordingly.



It was noted that as long as national mandates for ROOS members continue (e.g. to produce certain forecasts, services, monitoring, etc.) ROOSs will continue to develop and be important bodies. ROOSs should continue to look for large-scale opportunities for funding and contributions to international initiatives, e.g. through Horizon Europe or UNDOS. More should be done to emphasise ROOSs' role in big initiatives to make them more prominent.

The in-kind, voluntary nature of ROOSs was noted as a bottleneck to further development. Involvement/contribution to other activities, such as in Copernicus or ICES, is funded. All EuroGOOS activities are bottom-up and community-driven. ICES was noted as an example with a top-down structure, with clear milestones and deliverables for its working groups. This works well producing results. EuroGOOS has a different structure, based on organisations rather than countries, and so does not have the same mandate. Given EuroGOOS' in-kind model and limited funding available, the importance of co-development and collaboration were emphasised.

Without the ROOSs, fulfilling many Member States' obligations would be much more difficult. The EU Directive making it mandatory for Member States to share 'high value' datasets was noted as an example. This includes environmental data and forecasts, including marine datasets.

The strengths of EuroGOOS as a wide and inclusive community were underlined. There is a lot of key work that can be done only with a whole system perspective and input from the whole community. Many new and emerging challenges reinforce EuroGOOS' mandate to work together, such as the development of DTOs, the growth of Blue Economy sectors, and the increasing demand for climate services.

**ACTION 3:** Organise a EuroGOOS webinar to continue the discussion on EuroGOOS' strengths and role in the oceanographic community now and in the future, with outcomes contributing to the EuroGOOS International Conference Statement in October 2023 (**Board and Office, September 2023**).

#### **8. Brainstorming on international cooperation and EuroGOOS engagement in UN Decade Activities**

Discussion was opened on EuroGOOS' engagement with international initiatives. It was noted that few European states have released national funding calls to specifically contribute to UNDOS, and those that have are often of limited relevance to the work of EuroGOOS. There is a general sense among the EuroGOOS community that, with no funding forthcoming for UNDOS activities, contributions are limited. It was also noted that by the time communities are in place and functioning to address the Decade challenges, there will be little of the Decade period remaining to address them. It was suggested that if the community is active and proactive in looking for funding opportunities they can be found, at national or other levels; passively waiting for relevant funding calls to be released will be unlikely to be fruitful. It was noted that the Office regularly shares details of relevant funding opportunities with Members.

It was discussed how there previously was a lot of community-led activity and development of ideas among EuroGOOS Members, with the Office serving as a facilitator and collector of ideas, bringing Members together to address big calls and other opportunities when they emerge. This kind of coordination to facilitate and develop collaborative activities between Members should be strengthened.

It was noted that while the funding relating to UNDOS has not been on the scale hoped for among the community, the objectives and priorities set out are shaping the development of activities as they align with the Decade.

It was underlined that UNDOS activities, with the particular example of the Ocean Prediction DCC, should utilise the existing networks of the ROOSs as far as possible, and work to strengthen links between different regional teams. It was emphasised that Ocean Prediction DCC is not the only UNDOS activity of relevance to the EuroGOOS community – many Members are active in other initiatives such as CoastPredict and SciNMeet. Most UNDOS programmes and activities have already been established – EuroGOOS should look to engage with these initiatives in the most strategic manner to benefit the Members. It was suggested EuroGOOS Office could best have a coordinating role to help facilitate Members' engagement in UNDOS activities, and not always directly contribute itself.

EuroGOOS Office can work to improve the visibility of its Members' existing contributions to UNDOS, sharing details of activities among the community, along with opportunities for others to engage also. It was proposed that EuroGOOS could facilitate joint discussions between European national UNDOS committees.

It was noted that UNDOS is not only about oceanography, but also people, empowerment, and sustainability. Much emphasis is on stakeholder engagement processes that are central to all UNDOS activities.

Calls for endorsement of new UNDOS projects and activities are opened roughly every six months. The 10th EuroGOOS International Conference has been endorsed as a UNDOS activity.

**ACTION 4:** Develop a strategy for EuroGOOS to better engage with UNDOS and to facilitate the engagement of its Members, including promoting existing UNDOS activities of Members more within the community (**Board, October 2023**).

**ACTION 5:** Highlight opportunities for engagement in UNDOS activities with a joint note communicated to Members (**Board, September 2023**).

**ACTION 6:** Develop and lead an online discussion session (webinar) on opportunities for engagement with UNDOS activities by Members and ROOSs (**Board, October 2023**).

**DECISION 3:** EuroGOOS General Assembly supports EuroGOOS' engagement with DCCs.

End of Day 1

**31 May 2023**

**Open session (II)**

Henning Wehde welcomed all and opened the second day of the EuroGOOS General Assembly.

### **9. Task Teams activities highlights, including connections with EuroGOOS Strategy**

#### **Argo TT**

Griet Neukermans presented an update on the renewed Argo TT. Details are provided in Doc. O7.1 and in presentation slides. The TT has been reformed with close links to the Euro-Argo ERIC, with one objective to support potential new ERIC members in the preparations to join Euro-Argo.

It was noted that globally there is a target to have approximately 4000 standard Argo floats deployed, along with 2000 deep Argo floats, and 1000 BGC Argo floats. Currently, around half of Argo floats deployed are European.

#### **FerryBox TT**

Henning Wehde presented an update on the FerryBox TT on behalf of its Co-Chairs Yoana Voynova and Andrew King. Full details are provided in Doc. O7.1 and in presentation slides. The FerryBox TT continues to grow since its establishment following the FerryBox project in 2005. It was noted that there are over 30 years of FerryBox observations by SYKE on Finnish routes.

It was noted that connections between the TT and EuroGO-SHIP and BioGO-SHIP will be important. This will be taken forward by new TT Chairs when they are appointed.

#### **Fixed Platforms TT**

Giuseppe Magnifico presented an update on the renewed Fixed Platforms TT. Details are provided in Doc. O7.1 and in presentation slides. The TT was renewed in 2021, with the main aim to integrate European fixed platforms in the coastal and open ocean. An in-person meeting of the TT was held in Rome in April 2023 (the first in person since the pandemic). New members have joined the TT, with other potential members identified. A map showing all members' fixed platforms is displayed on the TT's webpage.



## **HF Radar TT**

Julien Mader presented an update on the renewed HF Radar TT. Details are provided in Doc. O7.1 and in presentation slides. The main aim of the TT is to share best practices and technical knowledge between HF radar operators in Europe. An online outage reporting tool has been developed that can automatically detect issues in the network, and provide some diagnostics and solutions, helping to monitor the status and functioning of the HF radar network in Europe. An online map view shows the network of HF radar systems operated by TT members. The TT has particularly been able to advance its work thanks to funding via the EuroSea project.

The TT is also working to improve the visibility of individual systems and operators with the European HF Radar Node. Operators' contribution is not always easily visible when their data is included in large datasets.

Plans for the TT include development of a DOI strategy for HF radar and operational updates to network metadata.

It was noted that the TT could try to take advantage of the capacities in JERICO to further develop HF radar services. This could include virtual access programmes, for example. A question was also raised on the use of HF radar to monitor coastal upwelling, with an example in Galicia noted that could be repeated elsewhere. This is an emerging use case for HF radar data. Collaboration with partners in West Africa to develop HF radar systems and uses was noted, with some countries interested to develop capabilities, potentially to support fisheries monitoring and other use cases. The TT could be interested to contribute to these discussions. It was noted that HF radar is not a low-cost technology, but relatively simple to maintain.

There were no presentations from the Gliders TT or Tide Gauges TT. Updates are provided in Doc. O7.1.

## **10. Working Group activities highlights, including connections with EuroGOOS Strategy**

### **Coastal WG**

Ghada El Serafy presented an update on the Coastal WG. Details are provided in Doc. O8.1 and in presentation slides. The WG has objectives to develop the full value chain of coastal observing, including satellite observations, modelling and forecasts. Ongoing activities including mapping of potential users of coastal products, and user engagement in the aquaculture and other sectors. An inventory is being developed to review available coastal data, including river data sources. A paper by the WG significantly influenced the development of Copernicus' coastal services and tailored coastal services were developed during the FORCOAST project. The WG has been very active in contributions to conferences and other meetings.

Future plans for the WG include activities relating to AI/ML, gathering of success stories and development of a white paper. The WG is the regional focal point for the North-East Atlantic in the Ocean Prediction DCC.

A question was raised on the WG's collaborations with offshore wind farms and other marine installations, particularly in relation to user needs in these growing sectors. It was noted that many examples are currently in offshore zones, but increasingly in coastal areas. It will be important to learn from offshore user needs to inform future needs in coastal areas.

### **DATAMEQ WG**

Thierry Carval presented updates on DATAMEQ. Details are provided in Doc. O8.1 and in presentation slides.

The main activity the WG has been focused on in the last year has been the development of the new EuroGOOS Data Policy. This will be a European implementation of the new IOC Data Policy and the EU Directive on High Value Datasets. The policy includes a commitment to free circulation of at least the physical and biogeochemical EOVS data. It is intended that the new policy will be signed by all EuroGOOS

Members individually. The policy will be presented for approval in principle by the GA during the closed session of the meeting.

It was proposed that DATAMEQ should join the Research Data Alliance (RDA) to represent EuroGOOS and operational oceanography in this forum.

Future plans for the WG include work to improve NetCDF, actions relating to cloud-based data architectures and the EOSC. DATAMEQ members, and EuroGOOS, are partners in several projects or proposals to develop components of the EOSC, such as Blue Cloud 2026.

There was some discussion about the evolution of data transfer protocols as technologies have developed. It was noted that the period for a community to transition to new protocols when they have used the same for a long time can be challenging, and requires careful management. This is a key issue where the DATAMEQ WG can support ROOS.

### **Ocean Literacy WG**

Dina Eparkhina presented an update on the Ocean Literacy WG. Details are provided in Doc. O8.1 and in presentation slides. Many activities have been completed since the last GA, including through the Scientists for OL UNDOS project. The WG has participated in several events. The lack of time and funding for contributions to activities were highlighted as an obstacle for work, as well as a lack of recognition of OL in the oceanography community in many instances. Some funding for the WG's work has been available via projects, but this is limited.

### **Science Advisory WG**

Lucie Cocquemot presented an update on the SAWG. Details are provided in Doc. O8.1 and in presentation slides. The SAWG has been advancing with its planned work to develop a white paper, and has submitted two abstracts to the EuroGOOS Conference. Ambassadors from all ROOS Chairs and Board members are members of the SAWG, working to ensure EuroGOOS' strategic scientific planning and advisory work aligns with regional and other perspectives.

The SAWG is an open forum or think tank for sharing innovative trends in operational oceanography. Topics identified for further discussion in the SAWG include marine renewable energy, EuroGOOS' relationship with Mercator Ocean International in line with EuroGOOS priorities (including in relation to the modelling activities in ROOSs), and a user-orientated approach to operational oceanography, including on-demand services/modelling, and the DTO. Questions around on-demand approaches, including best practices to identify needs or 'demands' continue to be discussed within the SAWG.

The SAWG is working to develop a white paper on a seamless earth system approach to operational oceanography. Writing teams for the chapters in the white paper have been established, but these have so far not activated to begin drafting. As such a series of informal online brainstorming sessions are planned to gather ideas to begin development of the white paper. It was noted that the paper intends to be strategic with clear recommendations actionable by the European community or others, in line with the EuroGOOS Strategy. Previous EuroGOOS white papers have been very influential in this way.

### **Technology Planning WG**

Rajesh Nair presented an update on the Technology Planning WG. Details are provided in Doc. O8.1 and in presentation slides. The main objective of the WG is to improve collaboration within EuroGOOS on technology issues and support the development or uptake of new technologies in operational oceanography.

The WG is contributing to planning for the next EOOS Technology Forum, planned to be held at Oceanology International in London in March 2024. Possible topics of focus for the event include low-cost sensors, participatory science, and technology standards. It will be important for all EuroGOOS groups to contribute to the EOOS Technology Forum for it to be a success.

The need for improved geographic and gender diversity among WG members was highlighted.

It was noted that new technologies are important to the community, but it is also important to focus on their use and uptake. The example of the OBAMA NEXT project was made. New types of data are available thanks to new technologies, but operators and users need to understand how this can be used to meet their needs. Synergies with DATAMEQ, the Biological WG, SAWG and others were noted in relation to this issue.

Some discussion was held on technology becoming obsolete. Oceanographic communities must also be aware of this, and be prepared to adopt new technologies, especially where old technologies and critically relied upon. It was also noted that it is not necessary to be at the cutting edge of technology to achieve objectives and meet needs.

Training and skills were noted as an important issues. A lot of effort goes into simply maintaining existing technology and infrastructure of operational oceanography, often requiring highly specialised technicians. More needs to be done to attract skilled individuals to a career in operational oceanography to retain and strengthen these skills.

It was noted that industry partners are often very powerful in technologies for operational oceanography. As the European community of operators, EuroGOOS should have an influential role, helping to guide industry to ensure Members' needs are suitably met. EuroGOOS could work to develop a closer relationship with industry partners. There are key examples that could benefit from this, such as access to raw data from sensors. The WG should aim to position itself between science and industry.

### 11. Discussion (including long-term vision)

Enrique Alvarez moderated the discussion in place of Henning Wehde. WGs and TTs are different entities with different roles within EuroGOOS. TTs are more long-term, with focused on platforms and sharing technical practices. WGs are thematic, addressing certain topics or areas of EuroGOOS' work. Both types of groups rely on in-kind contributions and activities are often largely shaped by the TT or WG leadership. It was noted that improved communication between TTs and WGs would be beneficial. Questions on Slido were used to stimulate discussion:

- Should activities be set up for a specific goal and duration (e.g. deliver recommendations, help community to self-organize, etc)?

#### Responses:

- Yes
- Definitely yes... help to produce useful/measurable outputs
- I really do not completely understand the structure WG/TT, some WG are transversal like technology or data management, others are not. I see on one side some over positions, on the other, I feel it is necessary, at least for me, to clarify the reciprocal relationships with the intent to enhance the positive links.
- Yes, subject to regular updates
- They probably should: activities without a deadline are likely to get stuck.
- Yes, I guess this is part of work plan of each WG and TT.
- No specific actions to feed the strategy of the group.
- Yes, but with flexibility for changes

- Yes, this way, a TT/WG gets a purpose. When the task is finished, the group may decide to be closed.
- Task Teams should have a long-term role in structuring the community.
- Yes, activities punctuated by successive general meetings.
- Yes - activities planned must be realistic and achievable.
- Both, depending.
- Yes. This is the preference, flexibility.
- Have a specific short-term goal to be done during the mandate and then renew it.
- As a tool for investigating new upcoming questions and topics a limited time frame is an option. This should be evaluated as this "activity" is nearing its completion.
- Activities should be both setup on specific goals but also on freer issues in order to promote innovative ideas.

- Yes. And TTs and WGs should have a set lifetime (~2 years), after which they disband, or seek a renewed mandate.

- Yes. A TT is implemented for a specific and well-defined task.

- If a Task Team is a long-term expert forum, should the relations with related initiatives be institutionalized? How to avoid fragmentation?

#### Responses:

- Close collaboration with similar initiatives, joint workshops, white papers, set of practices...
- To institutionalise is not the solution, the difficulty is being on a voluntary base and being involved in too many duties. I think creating different occasions of active and concrete discussion should be the way, these occasions should be covered by some sources of funds.
- TT will serve as a knowledge pool of their area whenever new technology, best practice is available, or a EuroGOOS partner want to start a new monitoring, existing knowledge, tech or infrastructure can be used.
- No. By regular interactions of TT and WG chairs as a minimum. Preferably by online community - but difficult to maintain, maybe it would be difficult to achieve this.
- I am not sure institutionalisation is the best way to proceed, inviting experts from other initiatives at the meetings could be a way to share info and avoid fragmentation.
- No, we do not need to institutionalise the relationship and the fragmentation is a risk difficult to moderate.

- With active identification and communication with the relevant communities.
- It is up to the members of each group if they want to be institutionalized. If there is an overlap with external groups, they may be merged.
- Task Teams may keep their own activities and work together for clarifying their link with RIs
- Institutionalization may be an activity to sustain initiatives.
- Re: How to avoid fragmentation - Group-focused initiatives (power in numbers to address one challenge at a time).
- No idea, integrate the activities in Europe via the Task team.
- Yes, the second question is a different matter. Fragmentation can be avoided by continuous assessment of the potential merging of activities when necessary.
- Inform members through newsletters.
- No, the EuroGOOS umbrella must remain and guide the task team.
- Yes, because a TT should not be a long-term anything.
- No
- Collaboration and sharing.

- How do task teams link to the development of the European research infrastructures?

#### Responses:

- Dialogue with infrastructures on their specific needs in terms of operational oceanography (technology development, data flow, networking, building/enhancing relationships with GOOS and other organizations).
- In some cases, like FP TT, it is essential to maintain and increment the links with the RIs but again, the bottleneck is what I explained in the previous answer.
- Jerico touches many issues related to TT, there should be really closer interaction between RI, TT and Tech WG.

- By members organisations.
- Trough the involvement of TT members in European Research Infrastructures.
- Why not if the roadmaps are common goals?
- Exchange ideas with them.
- Task Teams may work together and contribute to clarifying the landscape of Marine Research Infrastructures.
- Task Teams participants and European RIs actors are often the same people.
- Need to have a ToR specifically for this in each TT to be able to measure it easily.

- For the moment they are mainly incorporating the RIs.
- Through non-binding links which may need rethinking.
- Let them know what you are doing.
- Not an obligation, the EU RIs are not the only producers of data and science in the EU. It can be an Opportunity.

- Task Teams should improve the relationship with the ERICs.
- Through the membership.
- To solve specific issues.
- Link between existing infrastructures and a wider community.
- Some do some don't.

- What is the best way to review the WG and Task Team activities? Annual GA reviews are mainly about presenting the work, not discussing the future - how to do better?

#### Responses:

- WG/TT side meetings with GA, clear focus on WG/TT activities.
- As I said to create occasions for discussions supported by some sources of funds should be the way, let's try...
- The basic one is if the TT or WG has fulfilled their goals. One major criterion is to see the internal and external impacts, e.g., how much it benefited members.
- Specific workshops on the side of the GA meeting.
- Maybe with annual practical objectives (a few, clear and practical ones) and a final check on the Achievements.
- The integration workshop could be the place to review the activities.
- That's up to the chair and co-chair. With a change of chair and co-chair the objectives should change.

- Make a template, limit input on last year's activities, and force each group to say something about future plans.
- The extension to 3 days of the annual GA may improve WG and TT reviews.
- KPIs could help to determine how the Strategic Priority Areas are being addressed.
- Prioritising time to discuss the future on the forum! Really enhance exchange via a way to make the ambassador approach work.
- They organise the annual meeting, it can be a good moment.
- Reports.
- Annual reports from the TTs and WGs distributed to members with a fixed time frame for feedback.
- We need longer sessions during the GA to discuss the strategy of each TT and WG.
- Annual reports submitted before AGM.
- Devote more time at GA to discuss the future
- Revisit the terms of reference.

A discussion was held on the lifetime of TTs and WGs. Currently, EuroGOOS groups have no fixed lifetime. It was suggested that giving TTs and WGs a set lifetime, after which they either disband or seek a renewed mandate, could be beneficial to help refresh groups and to give more momentum to activities. It was suggested that this could be more of an appropriate approach to WGs than to TTs, which are communities of practices for key components of the observing system and so should be sustained.

The example of ICES working groups was discussed, which each have a three-year lifetime, after which they are reviewed and their terms of reference updated. This gives an opportunity to change the approach if a working group is not functioning well. Additionally, groups can be established at short notice to address specific issues as required.

The importance of the integration process in EuroGOOS was underlined, and that this is a continuous process that should strengthen the work of all EuroGOOS groups.

It was noted that a process to review the mandates of TTs and WGs would additionally benefit members as it provides a period opportunity to have a detailed overview of all EuroGOOS activities, beyond the annual activity reports at General Assemblies.



Updates during the GA from TTs do not give an overview or synthesis. Working in EuroSea is addressing this, improving coordination between TTs and other communities for specific ocean observing platforms or infrastructures, and supporting TTs to develop best practices that are included in OBPS.

It was noted that several WGs, such as DATAMEQ and Technology Planning, are very cross-cutting, and have a key supporting role for TTs.

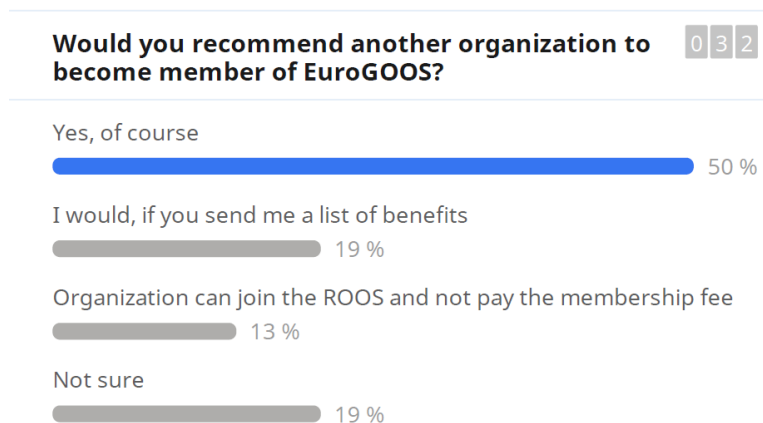
It was suggested that a finite lifetime for some WGs would not be suitable, however, a periodic review process would be beneficial. It was suggested that establishing KPIs would be too formal approach, but that reviewing the mandates of WGs and TTs periodically would be positive.

**ACTION 7:** Develop recommendations for a potential process set a specific lifetime for TTs and WGs, including a process to review mandates according to needs (**Board and Office, October 2023**).

## 12. Brainstorming session on EuroGOOS Strategic Priorities / Member benefits

A summary of results from the 2022 membership survey was presented to open discussion on the strategic priorities and benefits to Members of EuroGOOS. Slido questions were used to stimulate discussion:

- Would you recommend another organization to become a member of EuroGOOS?



- Do you feel that EuroGOOS addresses the current priorities of your organization? Please detail your answer.

### Responses:

- Yes, in terms of topics and cooperation. That being said, OSPAR, ICES, EMBRC and LifeWatch also meet my organisation's priority.
- Partially. The main priority of my organisation is related to ensuring that blue growth activities are properly monitored.
- Partially, for these priorities that overlap (collaboration, observing technology, data flow, new emerging topics, etc.).
- Mostly aligned, my institution has broader and main activities.
- Yes, at least a few of them, including the development of autonomous observations with near real-time data delivery for different purposes.

- Partially, it covers only one even if relevant sector - oceanography the interest is broader.
- Yes. This concern operational oceanography per se, especially including in situ observations and predictions/modelling. This is mainly about sharing data, knowledge and workload. Additional is organisational support of cooperation.
- Partially. My organization has broader aims and main activities.
- In part. The scope from EuroGOOS seems to have gone far beyond basic operational oceanography.
- Some of the new avenues are not relevant to my organisation.

- Partially, my Institution has a wider list of priorities being a multidisciplinary Entity.
- Yes, regarding operational oceanography.
- Yes
- Some of them, yes. EuroGOOS should be vital to organise our community and to give visibility to the relevance of ocean observations and forecasting.
- Yes, is being answered by observing/ understanding/protecting the ocean, seas, and coasts.
- Yes, the general overview for Europe and details for the region.
- Yes, FAIR data for science and operational oceanography.
- Partly, the climate is competing with operational oceanography.
- Yes, we are in line with the EG strategy.
- Totally aligned. Moreover, we have participated in the design of the EuroGOOS strategy to make sure all relevant priorities are addressed.

- Yes, some.
- Partly, my institute has a much broader objective. EG is just starting to go in that direction.
- Yes, in general, but lack of concrete advice.
- Yes, especially in the modernisation of infrastructure and technological questions.
- Yes, in terms of topics.
- Partially, as the organisation has a wider remit.
- NO! At this moment my organisation's priority is to keep the monitoring network alive.
- Partially. New topics and questions may include AI, mCDR, etc.
- Partially
- Yes
- Yes, some 😊

- Is there any link between your organisational strategy and the EuroGOOS 2030 Strategy?



There are many policy-relevant documents that have been published by EuroGOOS, which have been very useful to members over several years. However, it was noted that these are difficult to find on the website. It was noted that there are plans in place to overhaul the website, with the discoverability of key documents and information a priority.

A discussion was held on if Members would recommend other organisations to join EuroGOOS or not. While most would, others would not. It was noted that in several cases there are already all relevant organisations within a country as partners in EuroGOOS.

It was noted that the benefits of EuroGOOS membership are not always so clearly tangible. Access to shared information and ability to participate in discussions to shape European priorities. Such benefits are significant but not always quantifiable. Previous achievements of the EuroGOOS community were highlighted also. Examples such as EMODnet, EuroSea and the Copernicus Marine Service would not exist without the contributions of Members, organised through EuroGOOS. Such successes and achievements

should be better communicated and showcased by EuroGOOS. The upcoming EuroGOOS conference was noted as a key opportunity to highlight these achievements and celebrate the history of EuroGOOS.

EuroGOOS membership funds the Office. The services provided by the Office in support of Members and all EuroGOOS groups are an additional benefit. This includes advice to Members, sharing of information on European initiatives, funding calls and other opportunities to participate, and representing the interests of Members to the European Commission and other European and international institutions.

It was noted that EuroGOOS membership is not a prerequisite to participate in ROOSs, WGs or TTs, which are where many of the benefits for the EuroGOOS community are realised.

In 2020 an external review of EuroGOOS was completed. The outcomes of this emphasised the strength of EuroGOOS and underlined that it is a unique organisation – its community of European operational oceanography, including all the knowledge, expertise and experience of its Members are not available elsewhere. Other major entities, such as Copernicus, rely on the coordination of EuroGOOS Members – major achievements in the European and international ocean community would not be possible without EuroGOOS.

It was noted that EuroGOOS *is* its Members. Its strength and the benefits Members can receive depends on the contributions made by Members and individual representatives to support the wider community. It is important to keep a wider perspective than the specific benefits a particular Member might receive.

It was also noted that other regions in the world do not have an equivalent to EuroGOOS, and as a result, operational oceanography is much less developed. It is largely thanks to EuroGOOS that Europe has collectively been able to achieve its role among leaders internationally in ocean observing and operational oceanography.

It was noted that EuroGOOS is a necessity for the community and suggested that the discussion should focus more on how to improve its functioning to maximise benefits for all Members.

It was noted that EuroGOOS is primarily focused on operational oceanography. However, this seems to be evolving, with its strategy and scope expanding in recent years. It was suggested that EuroGOOS' benefits for Members could be more strongly appreciated if it keeps its activities focused. It was noted that climate services are often taking priority or attention from operational oceanography – although climate services rely on operational oceanography, e.g. in relation to storm surges. It was noted that the EuroGOOS Strategy 2030 (aligned with GOOS) also endorses climate and ocean health, alongside operational oceanography.

It was noted that a current Member plans to withdraw from EuroGOOS, as they do not see clear benefits to their work. It is important to understand the diversity of organisations, and where mandates and activities are specific the benefits of Membership may not be so immediately obvious.

The role of EuroGOOS in supporting the development of young organisations was emphasised. A lot of knowledge and experience is shared between Members, and EuroGOOS provides a unique platform to bring together the operational oceanography community across Europe, facilitating contacts that may not otherwise be possible.

Members were reminded to communicate their views on EuroGOOS benefits, and its strategic direction, to the Board whenever they like. The Board and Office are always receptive to input from Members.

According to the Slido poll, 80% of Members consider the EuroGOOS strategy to be aligned with that of their own organisations. It was noted that Members are often very large organisations with broad interests and activities, of which oceanography is often only a small part.

### **13. Brainstorming session on EuroGOOS-EOOS relations / EuroGOOS evolution**

A discussion was opened on the relationship between EuroGOOS and EOOS, and the evolution of EuroGOOS in this context, noting that this is a recurring topic for several years. Slido questions were used to stimulate discussion:

- What is the difference between EuroGOOS and EOOS?

Responses:

- EuroGOOS is an AISBL where institutions active in operational oceanography jointly develop this field further (observations and products); EOOS is a system how ocean observations can be arranged in a more coordinated manner satisfying different needs and stakeholders (environmental managers, researchers, maritime businesses, etc).
- EuroGOOS is more about defining and developing observation system, and EOOS is more about implementing the observations/ observing system.
- The OO is not the same! Operational Oceanography AND Ocean Observing for EOOS.
- Operational role versus scientific role.
- EuroGOOS is focused on Operational Observations, EOOS is integrating other components of Ocean Observation.
- EOOS is observation only.
- EOOS scope is narrower.
- EOOS should contain the idea to integrate in situ observation with EO.
- EOOS is in situ observing system, not a full value chain.

- EOOS is only measurements. EOOS IS the larger umbrella for
- European OOS. EuroGOOS is part of it, just as EMODnet etc.
- Honestly, I don't really know.
- Who knows?
- EuroGOOS is more operational.
- EuroGOOS has a coordination role of the operational oceanography community across Europe.
- EOOS is an umbrella of ocean observing initiatives across Europe.
- I still get confused even though it has been explained to me many times!
- EOOS is more operational, EuroGOOS more strategical.
- EuroGOOS is a legal entity, EOOS is a framework.
- EOOS doesn't contain the letters u, r and g.
- Amongst other differences, EOOS is only about observing system.
- Content

- Should EuroGOOS continue playing a key role in EOOS?



- Going forward, what should be the institutional role of EuroGOOS in EOOS (implementer, contributor, secretariat, advisor, co-funder, etc)?

Responses:

- Contributor
- Co-founder
- Co-funder
- Implementor, advisor.
- Secretariat seems a good fit with current EuroGOOS work. Co-funding welcome!

- Contributor and advisory role mainly based on the existing network and activities.
- Supporter. For my organisation EuroGOOS taking a lead would not be aligned with our expectations.
- As long as there is not a significant independent EU budget associated with EOOS, the institutions sustaining the system should rule. These institutions are integrated at EuroGOOS, so the role of

- EuroGOOS should be a leading one.
- If additional EU money arrives to build an independent IGO, then things should change.
- Lead role (Co-funder or Secretariat).
- If EuroGOOS is outside EOOS governance there is a risk of duplication and of losing leverage.
- Should have EOOS as a subpart of EuroGOOS.

- Where will EuroGOOS be by 2030 vis-à-vis EOOS?

#### Responses:

- EOOS will take over the role of EuroGOOS on operational observation the operational part of EOOS.
- EuroGOOS as a legal entity could become EOOS Secretariat and this could be its main role and identity.
- Members would provide the distributed infrastructure components of EOOS.
- EuroGOOS should be a (sort of) programming organization for EOOS, developing its long-term strategy for operational oceanography.
- Recognised player within EOOS.
- EOOS should make observations sustainable, while EuroGOOS should be building services and products on top of EOOS observations + facilitating developments.

- Still there as today but better linked to other observational networks.
- Depends on the funding scenario. If there is no additional money, EOOS should be the observing component of EuroGOOS.
- An exemplar of how best to organise European in-situ platform networks facilitating the smooth flow of data from in-situ to the data Integrators.
- They should work together.
- Part of it.
- My crystal ball is broken 😊
- Should be the 'mothership'.

- What is the EuroGOOS members' role in EOOS? What are the roles of WGs, Task Teams, ROOS? How much of this is a EuroGOOS role and how much individual organization or an expert?

#### Responses:

- Contributors, main players.
- Members would provide the distributed infrastructure components of EOOS.
- Contributors, developers and Customers-
- EuroGOOS as co-founder should promote more operational observations, data which can be used for many purposes.
- Active participation, networking role.
- With the present-day funding scenario for the observing system, EOOS should be the observing component of EuroGOOS; so the roles are already defined in that context.
- Contributors: TTs feeding into EOOS; WGs facilitating integration; ROOS delivering

- demonstrators of downstream products and services (OOS benefits).
- EuroGOOS Members need to make sure the national component is coordinated. ROOS can provide a regional component to go beyond national.
- EOOS will have TT and WG, and EuroGOOS has successful experience in setting them up and getting work done.
- Avoid double structures and WG.
- As part of it, partially, shared with expert
- Continue as actual.
- They are the backbone of EOOS.



There was discussion on the complementarities and interconnections between EuroGOOS and EOOS. The new EOOS Strategy 2023-2027 differentiates between EOOS (the observing system) and the EOOS Framework (the organisational structure) in an effort to add clarity.

It was noted that the European Commission has emphasised their wish for EOOS to develop its institutional capacity, with an entity or dedicated Secretariat. Such an entity could be embedded within the EuroGOOS Office, or otherwise connected to EuroGOOS. It was suggested that one office as the coordinating body for both EuroGOOS and EOOS could cause confusion. Alternatively, further clarifying the close relationship between both entities would be beneficial.

It was suggested that the development of EOOS requires national support and mandates, and not only institution/organisation level collaboration as in the EuroGOOS structure.

The relationship between GOOS and EOOS was queried. It has been suggested that EOOS could become a new European GOOS Regional Alliance. This was not regarded as a suitable option, as EuroGOOS is already long established as the GRA for Europe.

It was noted that EuroGOOS' ROOSs, WGs and TTs should have a more prominent role in EOOS. As existing bodies for coordination and sharing of best practices in Europe, they are invaluable to the development of EOOS, but their role is currently limited. It was noted the EuroGOOS groups are represented in the EOOS Operations Committee, but that this group is currently working to re-establish itself following a period of limited activity.

A question was raised on the definition of EOOS as detailed in the new EOOS Strategy: 'EOOS is the infrastructure, platforms sensors and people that gather the required data and information about Europe's ocean, seas and coastal waters...'. It was queried as to whether the people should be included, and if they had been consulted. It was noted that the development of EOOS has been a fully bottom-up, community-led initiative since its beginning. It is important to highlight the work of the people in the European Ocean observing community, without whom the system could not function.

It was suggested that EuroGOOS should continue to have a leading role in EOOS, but that it does not have the capacity for everything. EuroGOOS should have a leading coordination and strategic role, but day-to-day management and operations of EOOS should be with other bodies (connected to EuroGOOS).

It was noted that the original vision of EOOS was to be the umbrella to bring together the ocean observing community beyond EuroGOOS, connecting with policy, science, data and other communities, as well as the operational oceanography community in EuroGOOS.

It was noted that if Europe were one country, EOOS would likely be developed in a similar manner to IOOS or IMOS, with a clear centralised design and management. As it brings together the diversity of European countries and their own national mandates and responsibilities for ocean observing, EOOS is necessarily more heterogenous, accommodating all national priorities and identifying opportunities for collaboration. It was noted that EOOS needs both a bottom-up and top-down approach to its development and coordination simultaneously to achieve its aims while respecting national responsibilities. The EuroSea project was noted as a significant catalyst for the development of EOOS, helping to facilitate improved coordination and planning between countries, infrastructures, platforms and disciplines.

It was noted that the central development of EOOS and its new Strategy has been led by an active and engaged part of the community. Work is needed to broaden understanding of EOOS throughout the whole European ocean community, including how interested partners can contribute or engage with its ongoing development and co-design. It was noted that many EuroGOOS Task Teams, by their nature community-led groups, were established in preparation for the development of EOOS.

A discussion was held on how the development of EOOS may influence the future of EuroGOOS and its role in the European and international ocean community. It was suggested that EOOS should be the observing component of EuroGOOS. However, EOOS includes all ocean observations, whereas EuroGOOS is focused primarily on operational aspects, including the whole value chain. The early vision of EOOS was

that it would cover all aspects of the ocean knowledge value chain, including operational oceanography, rather than only being focused on observations.

The recently submitted proposal for the project AMRIT, in which EuroGOOS and several Members are partners, was noted. If funded, AMRIT will help to realise significant parts of EOOS as detailed in its new Strategy and Roadmap for Implementation, notably in the development of a European OceanOPS. It was noted that the European Commission is supportive of EOOS but is not likely to be able to support it financially. Project funding, such as through the proposed AMRIT project, can support the development of EOOS, but not in a sustained, operational manner. Several EC DGs are represented as observers into the EOOS Framework, with limited direct engagement. However, the Commission's support for EOOS, and in particular their support for the development of EOOS' institutional capacity, was underlined by representatives of DG MARE and DG RTD during the launch of the Strategy 2023-2027.

It was noted that there are many bodies and initiatives for coordination of different aspects of ocean observing in Europe, such as EuroGOOS, ERICS, and other organisations. It can be difficult to secure national contributions to participate in all of these. Adding another entity with an additional requirement for financial contribution could mean spreading limited national funding for participation in European-level coordination more thinly. Despite this, it was noted that the growth of EOOS and the development of its own institutional capacity is not seen as a threat to EuroGOOS.

It was noted that EOOS is the foundation of European ocean knowledge, upon which all other activities, by EuroGOOS or others, rely. The development of EOOS, therefore, will strengthen EuroGOOS, supporting its Members, and benefit all ocean-focused organisations in Europe. EOOS is being developed by and for the European community and therefore is focused on European needs. This broadly aligns with the aims of GOOS and other international initiatives, but that is not EOOS' primary purpose.

The visibility of Member States in EOOS was discussed, and the importance of including policymakers in its development. It was suggested the upcoming EU initiative 'Ocean observation – sharing responsibility' may provide some clarity to the landscape of entities and the relationship between different components of ocean observing in Europe.

The relationship between EuroGOOS and Mercator Ocean International was discussed. MOi does not carry out any observations itself but heavily relies on them to input its modelling activities. MOi is in the process of becoming an intergovernmental organisation. It will be important for EuroGOOS to discuss its future role in relation to such developments. It was noted that the success of MOi as an intergovernmental organisation relies on the engagement of states to join it. So far around six countries have noted their intention to join the intergovernmental entity once established. It was suggested that Members should be proactive in advising ministries within their countries on their views regarding membership of the MOi intergovernmental organisation.

It was proposed to invite MOi to present to the 2024 GA on its plans and future relationship with EuroGOOS, along with the opportunity for discussion with Members. It was noted that the Copernicus Marine Service was developed in large part thanks to the coordination and contributions of the EuroGOOS community, as with other major initiatives in the European marine community, including EOOS.

**ACTION 8:** Invite Mercator Ocean International to present its plans to become an intergovernmental organisation, and its envisioned relationship with EuroGOOS at the 2024 General Assembly (**Board, March 2024**).

It was noted that previous EuroGOOS General Assemblies included many presentations from external speakers. Members welcomed the proposed reintroduction of such presentations.

#### 14. EuroGOOS Data Policy

Thierry Carval presented a summary of the proposed new EuroGOOS Data Policy. Details are provided in Doc. O14.1 and in presentation slides. Several significant international data policies have been developed

or revised in recent years, including by the IOC. The EuroGOOS policy is proposed as a European implementation of the IOC Data Policy.

Members were asked to provide feedback on the EuroGOOS Data Policy, and for each Member to individually approve and sign it.

It was noted that the policy can be useful to incorporate into project proposals as a best practice to be followed.

The policy includes the sending of data to certified data centres. It was noted that several data centres in Europe have recognised international certifications, such as the Core Trust Seal.

It was queried what is meant by 'long-term' in the context of data availability. Data should in theory remain available to users in perpetuity.

Thierry Carval thanked DATAMEQ WG and the Office for support in the development of the Data Policy, noting that the WG remains available to support members to develop their own capacities in data management.

It was noted that the policy covers all EOVs, including physical, biogeochemical and biodiversity data, and makes links to OBIS and other thematic data systems as relevant.

A query was raised on compliance with the policy. What is the mechanism to ensure Members follow the policy once agreed. It was noted that the policy does not infringe on any existing obligations that Members may have in regard to data. The DATAMEQ WG will have the role to support Members in complying with the policy, including in relation to quality control procedures and continuous improvements to the FAIRness of data. Members are also encouraged to contact their national data centres for further queries as required.

It was noted that many national oceanographic data centres are struggling with many issues covered by the policy. The new EuroGOOS Data Policy will be very useful to clarify existing obligations and best practices.

It was noted that the EuroGOOS Data Policy could be open to all European actors, and not only Members, such as ERICs and other entities. This could be done through the EOOS Framework, and can be discussed as a next step once the policy is accepted by Members.

### **15. Meeting wrap-up statements**

Henning Wehde thanked all for their contributions to discussions, noting the usefulness of the meeting and progress made, despite limited time. Discussions between Members will be continued in future meetings.

## **Formal session**

### **1. Welcome and adoption of Agenda**

Henning Wehde opened the formal session and introduced the agenda items for the session.

### **2. Status of Actions from 2022 General Assembly**

Henning Wehde reminded the Actions from the last EuroGOOS Annual General Assembly Meeting and informed that all are completed in time.

### **3. Member Organisation approval session**

#### **Financial reports**

Inga Lips presented the 2022 income and expenditures (see details in documents F3.1.1. and F3.1.2.), indicating the projects that started and ended in 2022. Thereafter the budget review for 2023 and a budget projection for 2024 were presented (documents F3.2 and F3.4).

Sébastien Legrand suggested adding a new row to better detail the external expenses planned to be paid out to the Partners.

***Voting poll 1. Financial closure 2022***

**DECISION 4:** The Member Delegates unanimously approved the financial report of the Office together with the official accounts of the Belgian authorities.

***Voting poll 2. Budget 2023 review***

**DECISION 5:** The Member Delegates unanimously approved the EuroGOOS 2023 budget review.

***Voting poll 3. Budget 2024 projection***

**DECISION 6:** The Member Delegates unanimously approved the EuroGOOS 2024 budget projection.

**EuroGOOS member contribution calculation principles**

Inga Lips gave the history of the different proposals and solutions to update the membership fees and introduced the agreement reached in March 2023.

***Voting poll 4. Member contribution calculation principles***

**DECISION 7:** The Member Delegates unanimously approved the EuroGOOS member contribution calculation principles to be applied from 2025.

**EuroGOOS member contribution for 2025**

Inga Lips presented the new member contributions to be implemented in 2025.

***Voting poll 5. Member contributions 2025***

**DECISION 8:** The Member Delegates unanimously approved the EuroGOOS member contributions for 2025.

**EuroGOOS Data Policy**

Inga Lips asked Member Delegates to approve in principle the EuroGOOS Data Policy.

***Voting poll 6. EuroGOOS Data Policy***

**DECISION 9:** The Member Delegates unanimously approved in principle the EuroGOOS Data Policy.

**ACTION 9:** Submit new EuroGOOS Data Policy signed by Member organisation directors, to the Office (Members, August 2023).

**New EuroGOOS members**

Inga Lips introduced the representatives of the EuroGOOS member candidate organisations and asked them to present their respective institutions to the Member Delegates.

Zacharias Siokouros, CEO of Cyprus Marine & Maritime Institute (CMMI) presented CMMI.

Prof. Christophe Delacourt, French National Centre for Scientific Research (CNRS), presented CNRS.

***Voting polls 7 and 8. New member organisations***

**DECISION 10:** The Member Delegates unanimously approved the new member organisations.

**4. Executive Board elections**

Inga Lips presented the members of the executive board and their mandates, informing that Ghada El Serafy's first mandate had come to an end and that she was standing again for a second term. No other applications were received.

Holger Brix informed the Member Delegates that there will be an open position at the Executive Board next year as he is stepping down. Enrique Alvarez informed that there is also an available position for Spain as he is now representing an international organisation.

***Voting poll 9. EuroGOOS Executive Directors Board election***

**DECISION 11:** The Member Delegates unanimously approved the re-election of Ghada El Serafy for the second term in the Executive Board of Directors.

**5. Next Annual General Assembly Meeting**

Inga Lips asked the Member Delegates to save the date of the next EuroGOOS Annual General Assembly Meeting, which will last for 3 full days. She proposed the dates on 21-23 May 2024, and informed about the invitation made by Carlos Fernandes to host the Assembly in Lisbon, Portugal.

***Voting poll 10. Next EuroGOOS Annual General Assembly Meeting***

**DECISION 12:** The Member Delegates unanimously approved the Portuguese Hydrographic Institute's invitation to have the next EuroGOOS Annual General Assembly Meeting in Lisbon, Portugal in May 2024.

**6. AOB**

George Petihakis presented the Ocean Best Practices Program and the repository he is leading under GOOS and IODE. The idea is to establish an AISBL to operate internationally with minimum fees applied.

**7. Meeting wrap-up statements**

Henning Wehde closed the meeting by thanking the Office for the organisation of the, and for the unanimous voting, as well as for everyone's contributions, and thanked Vicente for his years in EuroGOOS and wished him all the best in his new job.

Inga Lips expressed her thanks to everyone for the great discussions.

[End of Day 2](#)



## ANNEX 1 LIST OF ACTIONS AND DECISIONS

### ACTIONS

**ACTION 1:** Develop list of events where Board members represent EuroGOOS, and share it with Members (**Board/Office, September 2023**).

**ACTION 2:** Improve discoverability of EuroGOOS project deliverables on the website for Members (**Office, October 2023**).

**ACTION 3:** Organise a EuroGOOS webinar to continue the discussion on EuroGOOS' strengths and role in the oceanographic community now and in the future, with outcomes contributing to the EuroGOOS International Conference Statement in October 2023 (**Board and Office, September 2023**).

**ACTION 4:** Develop a strategy for EuroGOOS to better engage with UNDOS and to facilitate the engagement of its Members, including promoting existing UNDOS activities of Members more within the community (**Board, October 2023**).

**ACTION 5:** Highlight opportunities for engagement in UNDOS activities with a joint note communicated to Members (**Board, September 2023**).

**ACTION 6:** Develop and lead an online discussion session (webinar) on opportunities for engagement with UNDOS activities by Members and ROOSs (**Board, October 2023**).

**ACTION 7:** Develop recommendations for a potential process set a specific lifetime for TTs and WGs, including a process to review mandates according to needs (**Board and Office, October 2023**).

**ACTION 8:** Invite Mercator Ocean International to present its plans to become an intergovernmental organisation, and its envisioned relationship with EuroGOOS at the 2024 General Assembly (**Board, March 2024**).

**ACTION 9:** Submit new EuroGOOS Data Policy signed by Member organisation directors, to the Office (**Members, August 2023**).

### DECISIONS

**DECISION 1:** Agenda adopted.

**DECISION 2:** Future EuroGOOS Annual General Assembly Meetings to be held over 3 full days.

**DECISION 3:** EuroGOOS General Assembly supports EuroGOOS' engagement with DCCs.

**DECISION 4:** The Member Delegates unanimously approved the financial report of the Office together with the official accounts of the Belgian authorities.

**DECISION 5:** The Member Delegates unanimously approved the EuroGOOS 2023 budget review.

**DECISION 6:** The Member Delegates unanimously approved the EuroGOOS 2024 budget projection.

**DECISION 7:** The Member Delegates unanimously approved the EuroGOOS member contribution calculation principles to be applied from 2025.

**DECISION 8:** The Member Delegates unanimously approved the EuroGOOS member contributions for 2025.

**DECISION 9:** The Member Delegates unanimously approved in principle the EuroGOOS Data Policy.

**DECISION 10:** The Member Delegates unanimously approved the new member organisations.

**DECISION 11:** The Member Delegates unanimously approved the re-election of Ghada El Serafy for the second term in the Executive Board of Directors.

**DECISION 12:** The Member Delegates unanimously approved the Portuguese Hydrographic Institute's invitation to have the next EuroGOOS Annual General Assembly Meeting in Lisbon, Portugal in May 2024.

## Overview of the General Assembly and related meetings

	Tuesday 30 May	Wednesday 31 May
Morning, AM		EuroGOOS GA Open Session II
Afternoon, PM	EuroGOOS GA Open Session I	EuroGOOS GA Formal Session II (Closed)

## Agenda

Chair: Henning Wehde

### 30 May 2023

12.00 - 13.00 Lunch

#### Open session (I) – 13.00 - 18.00 CEST

16. 13.00 - 13.05 **Welcome and adoption of agenda** Henning Wehde  
 17. 13.05 - 13.35 **Office report on activities** Inga Lips, Alicia Blanco, Deniz Karaca, Dina Eparkhina, Joseph Nolan, Vicente Fernandez  
 18. 13.35 - 13:55 **EuroGOOS projects: completed in 2022 and ongoing** Vicente Fernandez  
 19. 13.55 - 14:25 **EuroGOOS Communication Strategy** Alicia Blanco  
 20. 14:25 - 15:00 **EuroGOOS Executive Board of Directors Report followed by Discussion** Henning Wehde

15.00 - 15.30 Break

21. 15.30 - 16:25 **ROOS activities highlights, incl. connections with EuroGOOS Strategy** ROOS Chairs (10 min each)  
 22. 16.25 - 17:00 **Discussion (incl. long-term vision)** Moderated by Henning Wehde  
 23. 17:00 - 18:00 **Brainstorming on international cooperation and EuroGOOS engagement in UN Decade Activities** Moderated by Henning Wehde

End of Day 1

20:00 – 23:00 **DINNER**

### 31 May 2023

#### Open session (II) – 09.00 - 15.00 CEST

24. 09.00 - 09.45 **Task Teams activities highlights, incl. connections with EuroGOOS Strategy** TT Chairs (7 min each)  
 25. 09:45 - 10:30 **Working Group activities highlights, incl. connections with EuroGOOS Strategy** WG Chairs (7 min each)  
 26. 10.30 - 11.10 **Discussion (incl. long-term vision)** Moderated by Henning Wehde

11.10 - 11.40 Break

**27. 11.40 - 12.30 Brainstorming session on EuroGOOS Strategic Priorities / Member benefits** Moderated by Henning Wehde

12.30 - 13.30 Lunch

**28. 13.30 - 14.30 Brainstorming session on EuroGOOS-EOOS relations / EuroGOOS evolution** Moderated by Inga Lips

**29. 14.30 - 14.50 EuroGOOS Data Policy** Thierry Carval, Discussion moderated by Henning Wehde

**30. 14.50 - 15.00 Meeting wrap up statements** Henning Wehde

15.00 - 15.20 Break

### Formal session I – 15.20 - 17.30 CEST

**8. 15.20 - 15.25 Welcome and adoption of agenda** Henning Wehde

**9. 15.25 - 15.30 Status of Actions from 2022 General Assembly** Henning Wehde

**10. 15:30 - 16:30 Member Organisation approval session**

- **Financial reports** Inga Lips

1. Financial closure 2022 – official accounts for the Belgian authorities + office report approval ([voting 1](#))

2. Budget 2023 review approval ([voting 2](#))

3. Budget 2024 projection approval ([voting 3](#))

- **EuroGOOS member contribution calculation principles** ([voting 4](#))

- **Member contributions 2025** ([voting 5](#))

- **EuroGOOS Data Policy** ([voting 6](#))

- **New EuroGOOS members** Henning Wehde

1. Cyprus Marine & Maritime Institute (CMMI) ([voting 7](#))

2. French National Centre for Scientific Research (CNRS) ([voting 8](#))

**11. 16.30 - 16.45 Executive Board elections** Henning Wehde

1. Presentation of candidates – Ghada El Serafy (re-election) + Q&A

2. Voting ([voting 9](#))

3. Announcement of results

**12. 16.45 - 17.00 Next Annual General Assembly Meeting** Henning Wehde













**13. 17:00 - 17:20 AOB** Moderated by Henning Wehde

**14. 17:20 - 17:30 Meeting wrap up statements** Henning Wehde







End of Day 2

**List of Participants**

















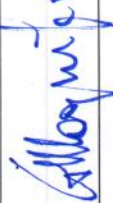







**EuroGOOS Executive Directors Board**

Name	Organisation	Country	Signature 30 May	Signature 31 May
Henning Wehde	Institute of Marine Research (IMR) / EuroGOOS Chair	Norway		
Holger Brix	Helmholtz-Zentrum hereon GmbH / EuroGOOS Vice-Chair	Germany		
Corine Lochet	French Hydrographic and Oceanographic Service of the Navy (SHOM) / Exec. Board member	France		
Ghada El Serafy	Deltares / Exec. Board member / Coastal WG Chair	Netherlands		
Enrique Alvarez Fanjul, also alternate of Pierre Bahurel	Mercator Ocean International (MOI) / Exec. Board member	France		
Giovanni Coppini	Euro-Mediterranean Centre on Climate Change (CMCC) / Exec. Board member	Italy	-----	-----
Carlos S. Fernandes	Hydrographic Institute (IH) / Exec. Board member	Portugal		

**EuroGOOS Member Organisation Delegates and Alternates**



















Name	Organisation	Country	Signature 30 May	Signature 31 May
Sébastien Legrand	Royal Belgian Institute of Natural Sciences (RBINS) / NOOS Chair	Belgium		
Koen Vanstaen	Agency for Maritime and Coastal Services (MDK)	Belgium		
Hrvoje Mihanovic	Croatian Institute of Oceanography and Fisheries (IZOR)	Croatia	-----	-----
Dijana Klaric	Croatian Meteorological and Hydrological Service (DHMZ)	Croatia	-----	-----
Steffen M. Olsen	Danish Meteorological Institute (DMI) / Artic ROOS Co-Chair	Denmark		













Niels Holt	Defence Centre for Operational Oceanography (FCOO)	Denmark	-----	-----
Urmans Lips	Tallinn University of Technology, Department of Marine Systems (MSI)	Estonia		
Laura Tuomi	Finnish Meteorological Institute (FMI) / Arctic ROOS Co-Chair	Finland		
Lucie Cocquempot	French Research Institute for Exploitation of the Sea (Ifremer) / SAWG Co-Chair	France		
Pierre Bahurel	Mercator Ocean International (MOI)	France	-----	-----
Kerstin Jochumsen	Federal Maritime and Hydrographic Agency (BSH)	Germany		
Emil Stanev	Helmholtz-Zentrum hereon GmbH	Germany		
George Petihakis	Hellenic Centre for Marine Research (HCMR)	Greece	-----	-----
Caroline Cusack	Marine Institute (MI)	Ireland		
Vanessa Cardin, also alternate of Giovanni Coppini	National Institute of Oceanography and Experimental Geophysics (OGS) / MONGOOS Co-Chair	Italy		
Maurizio Ferla	Italian National Institute for Environmental Protection and Research (ISPRA)	Italy	-----	-----
Antonio Guarneri, alternate of Simona Simoncelli	National Institute of Geophysics and Volcanology (INGV)	Italy		
Giuseppe Magnifico, alternate of Rosalia Santoleri <i>and</i>	National Research Council (CNR) / Fixed Platforms TT Co-Chair	Italy		
Gianmaria Sannino	Italian National Agency for new technologies, energy and sustainable economic development (ENEA)	Italy	-----	-----
Jitze P. van der Meulen	Royal Netherlands Meteorological Institute (KNMI)	Netherlands	-----	-----
J.C. (Kees) Borst	Rijkswaterstaat <del>Waterdienst</del> <b>Water, Verkeer &amp; Leefomgeving</b>	Netherlands		
Helene Frigstad, alternate of Andrew King	Norwegian Institute for Water Research (NIVA)	Norway		
Øyvind Sætra	Norwegian Meteorological Institute (MET Norway)	Norway	-----	-----
Stein Sandven	Nansen Environmental and Remote Sensing Centre (NERSC)	Norway	-----	-----
Agnieszka Beszczynska-Möller	Institute of Oceanology, Polish Academy of Sciences (IO-PAN)	Poland		





Juliusz Gajewski	Gdynia Maritime University, Maritime Institute (IM-UMG)	Poland		
Tamara Zalewska	<i>The Institute of Meteorology and Water Management (IMWM-PIB)</i>	Poland	-----	-----
Maria João Botelho, alternate of Maria Ana Martins	Portuguese Institute for the Ocean and Atmosphere (IPMA)	Portugal		
Branko Čermelj	National Institute of Biology (NIB)	Slovenia		
Maja Jeromel	Slovenian Environment Agency (SEA)	Slovenia	-----	-----
Julien Mader, also alternate of Joaquin Tintoré	AZTI / HFR TT Chair / IBI-ROOS Co-Chair	Spain		
Joaquin Tintoré	<i>Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB)</i>	Spain	-----	-----
Manuel Ruiz Villarreal	Spanish Institute of Oceanography (IEO) / IBI-ROOS Co-Chair	Spain		
Eric Delory	Oceanic Platform of the Canary Islands (PLOCAN)	Spain		
Susana Pérez Rubio	Puertos del Estado	Spain		
Patrick Gorringer	Swedish Meteorological and Hydrographical Institute (SMHI)	Sweden		
Veronique Creach, also alternate of Andrew Sautler (UK Met Office)	Centre for Environment, Fisheries and Aquaculture Science (CEFAS)	UK		
Angela Hibbert	National Oceanography Centre (NOC)	UK	-----	-----
Andrew Sautler	<i>UK Met Office</i>	UK	-----	-----

**Additional Member / new Member Representatives**











Name	Organisation	Country	Signature 30 May	Signature 31 May
Thierry Carval	Ifremer / Data MEQ Chair	France		
Victor Turpin	OceanOPS / WMO / Glider TT Co-Chair	France	-----	-----
Jun She	Danish Meteorological Institute (DMI) / BOOS Chair / SAWG Co-Chair	Denmark		
Rajesh Nair	National Institute of Oceanography and Experimental Geophysics (OGS) / Technology Plan WG Co-Chair	Italy		
Griet Neukermans	University of Gent / Argo TT Co-Chair	Belgium		
Paolo Favali	EMSO ERIC, Fixed Platforms TT Co-Chair	Italy		





Zacharias Siokouros	Cyprus Marine and Maritime Institute (CMIMI)	Cyprus		
Christophe Delacourt	CNRS	France	-----	-----

### EuroGOOS Office

Name	Organisation	Signature 30 May	Signature 31 May
Inga Lips	<b>EuroGOOS Secretary General</b>		
Dina Eparckhina	EuroGOOS Office - Senior Policy and Communications Officer		
Joseph Nolan	EuroGOOS Office – Science Officer		
Vicente Fernandez	EuroGOOS Office - Science Officer		
Alicia Blanco	EuroGOOS Office - Communications Officer		

### Apologies

















Name	Organisation	Proxy
Giovanni Coppini	Euro-Mediterranean Centre on Climate Change (CMCC) / Exec. Board member	Vanessa Cardin (OGS)
Dijana Klaric	Croatian Meteorological and Hydrological Service (DHMZ)	
Hrvoje Mihanovic	Croatian Institute of Oceanography and Fisheries (IZOR)	
Niels Holt	Defence Centre for Operational Oceanography (FCOO)	
Pierre Bahurel	Mercator Ocean International (MOI)	Enrique Alvarez Fanjul (MOI)
Simona Simoncelli	National Institute of Geophysics and Volcanology (INGV)	Antonio Guarnieri (INGV)
Maurizio Ferla	Italian National Institute for Environmental Protection and Research (ISPRA)	
Andrew King	Norwegian Institute for Water Research (NIVA) / Ferrybox TT Co-Chair	Helene Frigstad (NIVA)
Tamara Zalewska	The Institute of Meteorology and Water Management (IMWM-PIB)	
Maria Ana Martins	Portuguese Institute for the Ocean and Atmosphere (IPMA)	Maria João Botelho (IPMA)
Joaquin Tintoré	Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB)	Julien Mader (AZTI)
Andrew Saulter	UK Met Office	Veronique Creach (CEFAS)
Nicolas Pade	EMBRC / BIO-WG Co-Chair	
Laurent Delauney	Ifremer / TP WG Co-Chair	
Angela Pomaro	National Research Council (CNR) / OL WG Co-Chair	

*Gianmaria Sassano / ENEA*  
*Rosalba Santolevi (CNR)*















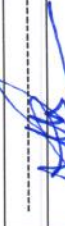
*Giuseppe Magnifico (CNR)*  
*Giuseppe Magnifico (CNR)*



## List of Participants – Formal Session 31 May 2023

Name	Organisation	Country	Signature 31 May
Sébastien Legrand	Royal Belgian Institute of Natural Sciences (RBINS) / NOOS Chair	Belgium	
Koen Vanstaen	Agency for Maritime and Coastal Services (MDK)	Belgium	
Hrvoje Mihanovic	Croatian Institute of Oceanography and Fisheries (IZOR)	Croatia	-----
Dijana Klaric	Croatian Meteorological and Hydrological Service (DHMZ)	Croatia	-----
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Niels Holt	Defence Centre for Operational Oceanography (FCOO)	Denmark	-----
Urmas Lips	Tallinn University of Technology, Department of Marine Systems (MSI)	Estonia	
Laura Tuomi	Finnish Meteorological Institute (FMI) / Arctic ROOS Co-Chair	Finland	
Corine Lochet	French Hydrographic and Oceanographic Service of the Navy (SHOM) / Exec. Board member	France	
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Enrique Alvarez Fanjul, alternate of Pierre Bahurel	Mercator Ocean International (MOI)	France	
Kerstin Jochumsen	Federal Maritime and Hydrographic Agency (BSH)	Germany	
Emil Stanev	Helmholtz-Zentrum hereon GmbH	Germany	
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Caroline Cusack	Marine Institute (MI)	Ireland	
Giovanni Coppini	Euro-Mediterranean Centre on Climate Change (CMCC) / Exec. Board member	Italy	-----
Vanessa Cardin, also alternate of Giovanni Coppini	National Institute of Oceanography and Experimental Geophysics (OGS) / MONGOOS Co-Chair	Italy	
Maurizio Ferla	Italian National Institute for Environmental Protection and Research (ISPRA)	Italy	-----
Antonio Guarnieri, alternate of Simona Simoncelli	National Institute of Geophysics and Volcanology (INGV)	Italy	
Giuseppe Magnifico, alternate of Rosalia Santoleri	National Research Council (CNR) / Fixed Platforms TT Co-Chair	Italy	
Gianmaria Sannino	Italian National Agency for new technologies, energy and sustainable economic development (ENEA)	Italy	



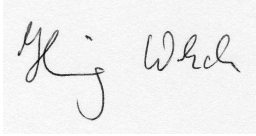
Ghada El Serafy	Deltares / Exec. Board member / Coastal WG Chair	Netherlands	
Jitze P. van der Meulen	Royal Netherlands Meteorological Institute (KNMI)	Netherlands	
J.-C. (Kees) Borst	Rijkswaterstaat <del>Waterdienst</del>	Netherlands	
Helene Frigstad, alternate of Andrew King	Norwegian Institute for Water Research (NIVA)	Norway	
Henning Wehde	Institute of Marine Research (IMR) / EuroGOOS Chair	Norway	
Øyvind Sætra	Norwegian Meteorological Institute (MET Norway)	Norway	
Stein Sandven	Nansen Environmental and Remote Sensing Centre (NERSC)	Norway	
Agnieszka Beszczynska-Möller	Institute of Oceanology, Polish Academy of Sciences (IO-PAN)	Poland	
Juliusz Gajewski	Gdynia Maritime University, Maritime Institute (IM-UMG)	Poland	
Tamara Zalewska	The Institute of Meteorology and Water Management (IMWM-PIB)	Poland	
Carlos S. Fernandes	Hydrographic Institute (IH) / Exec. Board member	Portugal	
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Maja Jeromec	Slovenian Environment Agency (SEA)	Slovenia	
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Joaquin Tintoré	Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB)	Spain	
Manuel Ruiz Villarreal	Spanish Institute of Oceanography (IEO) / IBI-ROOS Co-Chair	Spain	
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Susana Pérez Rubio	Puertos del Estado	Spain	
Patrick Gorringer	Swedish Meteorological and Hydrographical Institute (SMHI)	Sweden	
Veronique Creach, also alternate of Andrew Saulter (UK Met Office)	Centre for Environment, Fisheries and Aquaculture Science (CEFAS)	UK	
Angela Hibbert	National Oceanography Centre (NOC)	UK	
Andrew Saulter	UK Met Office	UK	
Zacharias Siokouros	Cyprus Marine and Maritime Institute (CMMI)	Cyprus	
Christophe Delacourt	CNRS	France	

**ANNEX 4 ROOS SWOT**

<p><b>What are the strengths of the ROOS model of cooperation?</b></p> <ul style="list-style-type: none"> <li>• Regional cooperation &amp; alignment</li> <li>• Common challenges</li> <li>• No member fees, voluntary, inclusive – wide participation, informal, diverse</li> <li>• Transfer and sharing of knowledge &amp; know-how</li> <li>• Collaboration, coproduction, coordination</li> <li>• Close proximity to / contact with users</li> <li>• Heterogeneity, knowledge, expertise, wide scope</li> </ul>	<p><b>What are the weaknesses of the ROOS model of cooperation?</b></p> <ul style="list-style-type: none"> <li>• Weak rules of cooperation within and between ROOSes</li> <li>• Lack of resources, funding &amp; time</li> <li>• Voluntary participation &amp; implementation, informal, unclear mandate, lack of support</li> <li>• Low visibility outside ROOS/EuroGOOS community</li> <li>• Not sufficiently linked with EuroGOOS strategy</li> <li>• Closed community, duplication, lack of harmonisation when using the products</li> <li>• Different research interests, inputs based on uneven national funding</li> </ul>
<p><b>What are some the opportunities ROOS can tap into?</b></p> <ul style="list-style-type: none"> <li>• Government needs for climate services &amp; advice</li> <li>• Growing demand for marine data</li> <li>• Blue Economy</li> <li>• Digital Twin Ocean</li> <li>• ERICs</li> <li>• EOOS</li> <li>• EuroGOOS support</li> <li>• Better exploitation of CMEMS products</li> <li>• UN Ocean Decade</li> <li>• Influence on EU &amp; global policies</li> <li>• New ways of financing, joint projects</li> <li>• Collaboration with other organisations</li> <li>• Multi-ROOS cooperation</li> <li>• New technologies</li> <li>• Operational ecology</li> <li>• More specific expertise on a reduced number of issues</li> <li>• Use common knowledge &amp; develop best practices</li> </ul>	<p><b>What are the threats ROOS are facing?</b></p> <ul style="list-style-type: none"> <li>• Human resources depletion, burn-out, retirement, active members leave</li> <li>• Lack of resources, time, engagement; low commitment &amp; enthusiasm</li> <li>• Dependency on single individuals</li> <li>• Lack of identity; low profile/visibility</li> <li>• Lack of innovation</li> <li>• Losing support from &amp; focus on users</li> <li>• Not linked with Digital Twin Ocean</li> <li>• UN Ocean Decade &amp; other cooperation activities like DCC</li> <li>• Duplication with other initiatives &amp; projects</li> <li>• Low influence at decision level, lack of recognition from CMEMS and JRC</li> <li>• Disconnected from EuroGOOS strategy and Task Teams &amp; WGs</li> <li>• Lack of practical outcomes</li> </ul>

Signed on 3 July 2023 by:

Henning Wehde



EuroGOOS AISBL Chair

Holger Brix



EuroGOOS AISBL Vice-Chair