



# ANNUAL REPORT ON ACTIVITIES

YEAR 2024

Edited by the GEO Blue Planet Secretariat



## Introduction

GEO Blue Planet, an initiative of the Group on Earth Observations (GEO), bridging **the gap between ocean and coastal data and decision-making** by ensuring that Observation and Prediction are **accessible, understandable, and usable** for stakeholders across sectors. It aims to support sustainable ocean and coastal management through **collaboration, innovation, and capacity building**.

In 2024, the initiative focused on strengthening global collaborations and supporting policy-driven solutions for ocean sustainability. This summary outlines key accomplishments, events, working group activities, and strategic directions from the year.

## GEO Blue Planet Secretariat



In 2024, the GEO Blue Planet Secretariat underwent a dynamic transition in leadership and staffing. The year began with a farewell to Executive Director **Dr. Emily Smail**, whose tenure marked a foundational phase in the initiative's growth. **Dr. Audrey Hasson** was appointed as the new Executive Director, bringing her expertise as a physical oceanographer and her experience as EU Coordinator to guide the Secretariat's strategic direction. The team welcomed **Dr. Merrie Beth Neely**, a NOAA affiliate, who assumes leadership of the U.S. Office. **Natalie Lerman** joined as the 2024 John A. Knauss Marine Policy Fellow, contributing her expertise in coastal flooding and water resource management, and leading key efforts in nutrient monitoring and stakeholder engagement. Additionally, **Daphné Lecellier** joined the EU Office hosted by Mercator Ocean as Programme

Officer, focusing on GEO Blue Planet marine litter and fisheries activities. These changes reflect a renewed Secretariat structure, ensuring continued delivery on GEO Blue Planet's mission.

## Working Groups Activities

### Marine Litter Working Group

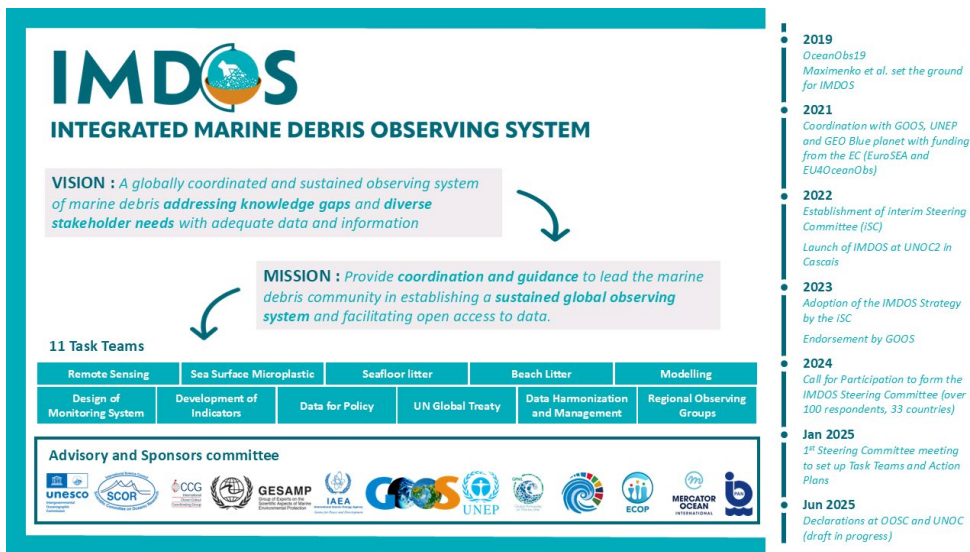
*Secretariat Lead: Daphné Lecellier*

The Integrated Marine Debris Observing System (IMDOS) supported by the working group is moving forward with 11 task teams with 2 co-chairs that have been identified

Last summer's Call for interest for new participants and for the constitution of the Steering Committee was very successful with over 100 responders from 34 countries.

The new SC was formed in Nov. 2024. The SC is composed of co-chairs of the 11 task teams and ex-officio members of the Advisory and Sponsors committee. The SC is tasked to review existing monitoring activities and discuss possible Task Team Action Plans for the first year, years 2-5, and beyond. Emphasizing the need for sustained funding, they shall explore financial sources to ensure IMDOS's long-term viability and enhance awareness of marine debris issues

SC composition, report of meeting and more information are available here: <https://imdos.org/news>



GEO Blue Planet to focus support on the 3 "stakeholder engagement" Task Teams

- Data to Policy
- Link with the treaty



- Coordination of Regional actions

Daphné has represented IMDOS at the [5<sup>th</sup> session of the Intergov Negotiating Committee](#) for a global treaty in November in Busan. See below. A second leg of this session will take place in Geneva, 4-15 August 2025. IMDOS is already planning to attend.

## Sargassum Working Group

*Secretariat Lead: Audrey Hasson*

The WG is composed of about 30+ members from all stakeholder groups. It has been identified as the expert group on monitoring by main actors (IOCARIBE, UNEP Cartagena Convention, etc)  
The Sargassum WG has met monthly in 2024, with presentation duets on US capacity in remote sensing, diplomatic actions in the Caribbean, Modelling developments and Sargassum in Africa.

6 Task Teams have been identified with priority given to:

- Task Team 1 on the Sargassum Hub is working on updating the content of the website, a single access point to all information on Sargassum monitoring. <https://sargassumhub.org/>  
This update is supported by the EU4OceanObs project.
- Task Team 2. Community lead decision support tool, which will be developed in the framework of the SargCOOP2 Interreg project piloted by the Region Guadeloupe.
- Task Team 3 is working on an In Situ Integrated Observing System to guide countries to develop monitoring programmes that will serve both regional warning systems and research.



## Fisheries Working Group

Secretariat Lead: Daphné Lecellier

The Fisheries WG is meeting monthly and manages 3 active actions on best practices for Earth Observations (EO) for Tuna Fisheries Management, the use of EO data for the fisheries sector and user requirements for forecast products for fisheries are also underway.

The WG is also planning for an in-person workshop with the Regional Fisheries Management Organisations (RFMOs) Secretariat Networks (RSN). The workshop is titled "Earth Observation and prediction for global sustainable fisheries management". This stakeholder engagement workshop is aimed at enhancing cooperation between stakeholders and the fisheries experts to facilitate the use of EO-based information for global sustainable fisheries management.

The collection of stakeholder priorities and requirements in terms of EO and prediction are expected to stimulate the improvement of present and the shaping of future fisheries management solutions and applications.

Expected outcomes include:

- State of Art of EO application to Fisheries and Aquaculture
- Gaps and Barriers of using EO to Fisheries Management
- Coordination with Stakeholders
- Recommendations for Implementation



## Climate Adaptation Working Group

Secretariat Lead: Audrey Hasson



Members of this working group are working on a white paper that will be presented to the UNFCCC to be supplementary material to the National Adaptation Plans guidelines. Co-authored by GEO Blue Planet and HEREON (Germany), this paper is currently titled "*Coastal and ocean adaptation: Recommendations to improve the inclusion of coastal and ocean adaptation requirements in the development of National*

*Adaptation Plans*". The paper is foreseen be declined in short version for the UNFCCC and a longer Technical Report and will be launched at the NAP EXPO 2025.

## Eutrophication Working Group

*Secretariat Lead: Merrie Beth Neely*

This Working Group focus is currently being discussed with members to reflect advances in current and past actions and the work done by Natalie Lerma (Knauss Fellow 2024 @ US Office).

This WG is seeking new members and 2 new co-chairs, as current co-chairs are wishing to step down - Merrie Beth Neely (NOAA) and Keith VanGraafeiland (ESRI). If you are interested in joining or self-nominating for co-chair, please email [mbneely@geoblueplanet.org](mailto:mbneely@geoblueplanet.org).

New activities with the UNEP Global Partnership on Nutrient Management (GPNM) and the UNEP Working Group on Nitrogen are being explored to convene the GEO Work Programme to provide a coordinated answer to their needs along the entire nutrient lifecycle. These activities would aim to coordinate cross-GEO efforts in nutrient and nitrogen species monitoring using Earth observation data. Experts from UNEP and some representatives of the Work Programme discussed leveraging satellite remote sensing to support UNEP in developing National Action Plans to reduce pollution. Key outcomes included establishing the task team's scope, defining its strategy and deliverables for the first 24 months, and setting next steps for implementation. Further discussions helped shape the team's objectives and future direction. The Workshop Summary Report is available [here](#).

## Coastal changes, Oil Spill, Inundation and Flooding Working Groups

These Working Groups are dormant or going at a slower pace since the beginning of the year. We will let members and the broader community know as we revive activities.

## 2024 Key Events

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### Ocean Observation and Prediction for Coastal Sustainability in Africa *March 2024*



The workshop held in Nairobi 4-7 March 2024 convened experts and stakeholders to address pressing challenges facing Africa's oceans and coastal areas, recognizing the critical importance of sustainable ocean governance. With a focus on fostering a comprehensive strategy, the workshop aimed to leverage innovative technologies and enhance community engagement to catalyse cooperation for coastal sustainability in Africa.

Key aspects of the workshop included discussions on the value-chain approach to addressing **Shoreline Changes, Coastal Flooding and Inundation, Coastal Ecosystem Mapping and Coastal Waters Quality**, leveraging innovative technologies for comprehensive ocean and coastal monitoring, and enhancing community engagement through accessible tools and knowledge. During 2 days of plenaries and 2 days of parallel working session, participants explored strategies to bridge the gap between data and societal needs, emphasizing stakeholder engagement, cooperation, and capacity development.

Overall, the workshop provided a platform for experts and stakeholders to **exchange knowledge, share best practices, and develop strategies** to address coastal challenges in Africa, with a focus on building resilient and sustainable ocean economies for future generations.



[Access the Final Report](#)



[Access the Event Page](#)

## UN Decade Conference April 2024



GEO Blue Planet has supported two satellite events in the framework of the Ocean Decade Conference 2024 in Barcelona, 8-12 April 2024.

### Connecting the world around Ocean prediction: A vision for the Decade and beyond

Co-organised by the Ocean Prediction Decade Collaborative Centre and GEO Blue Planet, with funding from EU4OceanObs, this satellite event fostered a **dynamic** dialogue, followed by a **networking reception with posters on the applications of prediction**. This event has



[Replay and Presentations](#)



[Access the Event Page](#)

promoted action and foster collaborations under the **“Predicted Ocean” outcome of the Decade towards** a society that understands and can respond to changing ocean conditions.

### **DT04ECOPS: Leveraging Ocean Data Networks with Cloud Technologies To Deliver the Ocean We Want, Today & Tomorrow**

Co-organised by GEO Blue Planet in partnership with EDITO-Infra, Iliad and Invemar, the workshop has revisited existing ocean **data sharing efforts** across regions, including data & information management and **capacity building initiatives** and networks and take stock of ongoing ocean digital twinning efforts with a view to discuss **how early career ocean professionals (ECOPs) can leverage these efforts and technologies to catalyse the successful delivery of Ocean Decade goals.**



**Access the Final Report**



**Access the Event Page and Presentations**

## **Ocean Space Forum** *July 2024*



Audrey Hasson attended the Ocean Space Forum held in July 2024 in Monaco. She has presented GEO Blue Planet and took part of a panel discussion in the plenary session on Space for Sustainable Oceans together with Driss El HADANI (UNOOSA), Claire JOLLY(OECD) and Anne-Laure BECK (ACRI-ST).

- More here: <https://promethee.earth/ocean-space-forum-edition-2024/>

## **2024 GEO Symposium** *September 2024*

The GEO Symposium and Open Data & Open Knowledge Workshop (ODOK) took place in Hangzhou, China, between September 23 and 26, 2024. The event focused on developing the GEO Post-2025 strategy into a detailed Implementation Plan and enhancing collaboration among GEO Work Programme activities.

- **Holistic nutrient monitoring**

At the Parallel Session, “Water and Land Sustainability, Natalie Lerma joined fellow panellists to discuss the interdependencies between water and land sustainability and the role of Earth Observations for effective and integrated land-water management and conservation strategies. Natalie presented the concept of a holistic source-to-sea nutrient monitoring system.



- **Earth Observation in National Adaptation Plans**

GEO Blue Planet's Dr Louis Celliers, who works at Climate Service Center Germany (GERICS) of Helmholtz-Zentrum Hereon, joined the Parallel Session "Co-developing National Adaptation Plans with Regional GEOs and National GEOs." The session focused on the dynamics, opportunities, and requirements for supporting the uptake of Earth observation in climate National Adaptation Plans.

- **One ocean, one health**

At the One Health Parallel Session, Natalie Lerma discussed the link between ocean health and human health and how GEO Blue Planet supports One Health. The One Health Initiative calls for "the collaborative efforts of multiple disciplines working locally, nationally, and globally, to attain optimal health for people, animals and our environment."



More on this: <https://geoblueplanet.org/geo-symposium-china/>



## **ESA - EO for Africa Symposium** *September 2024*

Lillian Diarra, EU4oceanObs Communication Officer for GEO Blue Planet presented at the EO for Africa Symposium organised by the European Space Agency (ESA) held in September, in Italy. The Symposium aims to showcase EO advancements for Africa, foster Africa-Europe collaboration, identify research priorities, share future EO opportunities, and discuss challenges in operational service integration. Lillian showcased the outcome of the GEO Blue Planet / UNEP workshop on EO for coastal sustainability in Africa of March 2024.

- More on the event here : <https://eo4society.esa.int/event/eo-for-africa-symposium-2024/>

## **EUROGEO Workshop** *October 2024*

The 2024 EuroGEO Workshop in October in Krakow, Poland, brought together policymakers, researchers, industry leaders, and GEO representatives to discuss the future of Earth Intelligence. Organized with the European Commission and supported by the Polish Space Agency (POLSA), the workshop aligned EuroGEO with GEO's Post-2025 Work Programme, emphasizing equity and global information accessibility.

Marine and coastal topics were central, with a session on the Marine Action Group, led by GEO Blue Planet's European office, exploring its future direction. Discussions focused on expanding its scope, engaging with EU-funded projects, and fostering co-design strategies.

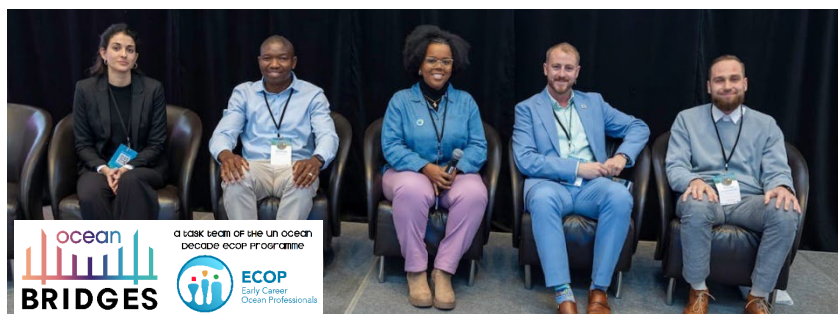
Audrey Hasson participated in synergy panels, addressing the link between land and ocean sustainability and EuroGEO's role in supporting Copernicus Marine. Marine initiatives were also showcased through exhibitions featuring the Copernicus Marine Service, the EU Digital Ocean Twin, and the GEO Blue Planet Sargassum Information Hub.



More information: <https://www.eu4oceanobs.eu/marine-coastal-topics-eurogeo-workshop-2024/> and <https://www.eurogeosec.eu>

## AAORIA Forum *October 2024*

Funded by EU4OceanObs/Mercator Ocean in the framework of the OceanBRIDGES initiative of GEO Blue Planet, three Early Career Ocean Professionals (ECOPs), Blessing Charuka, Nikia Gooding, and Hind Azidane, were among the ECOPs who participated in Intergenerational Dialogue of the 2024 All-Atlantic Ocean Research and Innovation Alliance (AAORIA) Forum held in October 2024 in Ottawa. Collectively, ECOPs engaged in discussions on coastal resilience, and ocean observation and monitoring, and contributed perspectives on integrating local knowledge and scientific data. They also discussed leadership, diversity, equity, inclusivity, and the need for cross-generational knowledge exchange to advance ocean science and drive innovation.



More on this: <https://www.eu4oceanobs.eu/empowering-next-gen-leadership-participation-of-early-career-ocean-professionals-at-the-2024-all-atlantic-ocean-research-and-innovation-alliance-aaoria-forum/>

## Marine User Days *November 2024*

The Marine User Days event was hosted by [EUMETSAT](#) and partners in Lisbon, Portugal on 5-6 November 2024. The Marine User Days brought together existing and prospective users from across the diverse marine user community. Focusing on the data provided by the European organisations involved in the Copernicus programme and their role in oceanography and marine applications, the event acted as a showcase for use cases with networking opportunities for users across the value chain. The event also included a workshop to engage with user needs and feedback.



Audrey Hasson presented the EU4OceanObs Horizon project that supports the Eu office of GEO Blue Planet with an accent on the full Ocean Observation value chain and the need for Science in Diplomacy that GEO Blue Planet brings through the activities of its working groups.

## OceanPredict Symposium (OP'24) *November 2024*

The OP'24 focused on the development of the operational oceanography for societal benefit. It specifically aimed to accelerate the evolution of operational oceanography; identify the growing and changing needs of users and how to enhance service delivery; align the objectives with the goals of the UN Decade of Ocean Science for Sustainable Development (UN Ocean Decade, 2021-2030).

Audrey Hasson, Executive Director of GEO Blue Planet, participated in a round table on international mobilization for fit for purpose ocean prediction capabilities where she highlighted the need for enhancing connection between ocean observations, forecasting and applications to serve society. She also delivered the keynote for the "User applications and societal benefits" plenary session. The presentation, "From Data to Policy: The Ocean Observation Value Circle," highlighted the role of GEO Blue Planet as a science-diplomacy instrument, catalysing essential partnerships between European and international infrastructures and programmes across the ocean observation chain.



Read more about OP'24:

<https://www.oceanpredict24.org/content/op-24-summay>

<https://www.eu4oceanobs.eu/mobilization-and-connections-at-oceanpredict24/>



## Intergovernmental Negotiating Committee (INC) 5<sup>th</sup> session side events *November 2024*

In 2022, the United Nations Environment Assembly adopted a resolution agreeing to adopt a legally binding instrument on plastic pollution by the end of 2024. Negotiations on the treaty details take place at Intergovernmental Negotiating Committee (INC) sessions, which have taken place since 2022. In November 2024, the fifth INC session (INC-5) took place in Busan, Republic of Korea.

GEO Blue Planet's Marine Litter Working Group lead, Daphné Lecellier attended two of those side events – one exploring East Asian perspectives and one exploring global knowledge sharing and capacity building.

The joint Korea Maritime Institute (KMI), hosting the Asian Office for GEO Blue Planet – Coordinating Body on the Seas of East Asia (COBSEA) Collaborative Action to Address Marine Plastic Pollution regional knowledge-sharing event looked at some of the unique challenges facing the region. Representatives from several Asian countries shared their experiences with waste management practices and data sharing, offering valuable insights into potential solutions.





Meanwhile, at the Global Partnership on Plastic Pollution and Marine Litter's (GMPL) Multi-Stakeholder Event, participants reflected on the INC process and how GPML can bolster knowledge sharing and capacity.

Read full article here: <https://www.eu4oceanobs.eu/moving-forward-with-a-global-plastics-treaty/>

## Major Upcoming Events

### GEO Global Forum in Rome, May 2025

GEO Blue Planet will be attending the GEO Global Forum, with a booth in the exhibition area and two community side events proposed on Nutrient Monitoring and on Sargassum.

If you wish to meet with us or share some videos, brochures or anything else at the GEO Blue planet Booth, send an email to [info@geoblueplanet.org](mailto:info@geoblueplanet.org)



### The Third UN Ocean Conference and associated events, June 2025

The third UN Ocean Conference (UNOC3) will take place in Nice, France, in June 2025, bringing together global leaders, scientists, and stakeholders to drive action for ocean sustainability. GEO Blue Planet will take an active role in the conference and associated events. GEO Blue Planet

will be contributing to the One Ocean Science Congress (OOSC), participating in the UNOC Green Zone's Digital Ocean Pavilion, and co-organizing and engaging in key side events. These efforts will highlight the importance of Earth observation in ocean management and policy. More details on GEO Blue Planet's involvement will be shared soon—stay tuned for updates on this important global event.



# Expanding Regional Partnerships

In 2024, GEO Blue Planet increased its reach and impact through regional offices, symposia, and partnerships.

- **Collaborations with Africa:** Through the workshop in Kenya, GEO Blue Planet has engaged with stakeholders for ocean monitoring and sustainable coastal management in African coastal nations, focusing on data-sharing frameworks, training, and infrastructure support.

- **Strategic International Partnerships:** Collaboration with organizations like UNEP, IOC-UNESCO, and Blue Shell Inc. has enabled GEO Blue Planet to expand its digital solutions and ensure data accessibility in developing regions.

- **Regional GEOs:** GEO Blue Planet works with regional GEOs to ensure the visibility of Ocean activities in all regions.



## Conclusion

The 2024 activities of GEO Blue Planet reflect its ongoing commitment to ocean and coastal sustainability through Earth Observations, stakeholder engagement, and science diplomacy. With strengthened leadership and expanded collaborations, the initiative is well-positioned to drive impactful change in 2025 and beyond.