

# Annual Report 2024

## EUROPEAN MARINE BOARD IVZW

*The European Marine Board provides a pan-European platform for its Member organisations to develop common priorities, to advance marine research, and to bridge the gap between science and policy, in order to meet future marine science and societal challenges and opportunities*

The European Marine Board is an independent and self-sustaining science policy interface organisation that currently represents 38 Member organisations from 19 European countries. It was established in 1995 to facilitate enhanced cooperation between European marine science organisations towards the development of a common vision on the strategic research priorities for marine science in Europe.

The EMB promotes and supports knowledge transfer for improved leadership in marine research in Europe. Its membership includes major national marine or oceanographic institutes, research funding agencies and national consortia of universities with a strong marine research focus. Adopting a strategic role, the EMB serves its Member organisations by providing a forum within which marine research policy advice is developed and conveyed to national agencies and to the European Commission, with the objective of promoting the need for, and quality of, European Marine Research.

[www.marineboard.eu](http://www.marineboard.eu)









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# Highlights 2024



# Message from the Chair



It is a pleasure to be writing my first Annual Report Message as Chair of the European Marine Board. I took up the post following an election at the Spring Plenary meeting in April 2024, becoming the first female Chair for the European Marine Board. It is a position I am honoured to be holding, and I look forward to working with the Members and Secretariat over the coming years.

I was able to dive straight into the myriad of EMB activities taking place in 2024, with my first public appearance as Chair taking place during the Brown Bag Lunch which we co-organised with DG Environment in June to launch the Future Science Brief on Marine Habitat Mapping.

I was very pleased that my first Plenary Meeting as Chair was held in beautiful and sunny Rhodes, Greece, hosted by HCMR at their Hydrobiological Station. It was a terrific opportunity to bring together our Delegates and Alternates to jointly discuss the governance and activities of EMB.

The highlight of 2024 was undoubtedly the publication of the sixth edition of the EMB marine science policy foresight publication, *Navigating the Future VI: Placing the Ocean within the wider Earth system (NFVI)*. This flagship publication series provides periodic reviews of the current status of marine research, priority recommendations and future scientific challenges in the context of European societal needs. NFVI considers the Ocean's place in the wider earth system, covering four wide-ranging themes, namely Ocean and People, Ocean and Climate, Ocean and Fresh Water, and Ocean and Biodiversity. The document was launched at a dedicated event in Brussels, Belgium in October, with the presence of key stakeholders. I want to extend my gratitude to the Working Group members and Secretariat who worked hard to bring this publication to fruition.

EMB's many activities in 2024 also provided important input for both the UN Decade of Ocean Science for Sustainable Development and the EU Mission: Restore our Ocean and Waters. Both of these initiatives are at a critical juncture as they near their mid-points, and EMB remains dedicated to their support, implementation and promotion as the progress.

I invite you to read further in this Annual Report to discover the many other activities and achievements from EMB in 2024. I am as always very grateful for the expertise, enthusiasm and fantastically hardworking Secretariat that make this Annual Report, and activities therein, possible.

**Dr Fiona Grant**, EMB Chair

# Executive Director's report



One would think that post COVID the changes in the Secretariat would settle down, but it seems like 2024 had even more changes than 2023. After the news of **Paula Kellett's** lovely daughter, we had another new addition to the EMB family, with **Ana Rodriguez** giving birth to a little boy in December 2023. These two lovely editions meant that Paula and Ana were on maternity and parental leave for some of 2024. Luckily our intern from 2023, **Fernanda Bayo-Ruiz**, was able to stay on as a Junior Science Officer, to help ensure that we can deliver on our work. We were also joined at the end of 2024 by another intern, **Winnie Okoth**, who is a student from the Free University of Brussels on the Oceans and Lakes Masters programme. Winnie was able to analyse all the recommendations of our Navigating the Future series. We will be using her work to analyse the impact of that series.

Talking about the Navigating the Future Series, in October 2024 we launched the newest edition: Navigating the Future VI, at an in-person event in Brussel. Navigating the Future VI was ably led to this point by **Paula Kellett** after her return from maternity leave, and she was also able to help with the next big change that happened in the Secretariat. In March 2024 **Jana van Elslander** left and was replaced as our Finance and HR officer in July by **Maria Cristina Teodosio**. Paula was able to help me with the important administration and finance that needed to be done for the Spring Plenary meeting, and to fully take over the organisation of the Autumn Plenary meeting so that Maria could get on top of the Finance and HR tasks. Paula was also able to take back the management of the Young Ambassadors, where **Riwan Leroux** and **Alexandra Hahn** were joined by **Virginia Morejon**, from the University College Dublin (funded by the Marine Institute) in Ireland, and **Laura Ciriminna**, from University of Palermo and CoNISMa in Italy.

In 2024 we also had the launch of our new document Marine Habitat Mapping, which we organised as a Brown Bag Lunch with the European Commission's Directorate General for Environment. This document was launched on the same day that the Nature Restoration Regulation was approved. **Britt Alexander** was able to work closely with policymakers in DG Environment, who were very keen to get the document published and for it to answer some specific questions that they expected from this Regulation.

During 2024 **Ángel Muñoz Piniella** helped to organise the CommoOCEAN conference, which took place in Malaga, Spain. By all accounts it was even more successful than the previous editions. Ángel also worked on the new Mission Ocean lighthouse project, RHE-MEDiation, on chemical pollution in the Mediterranean Sea and helped with organising the 40 Years of Ecopath conference that the EMB organised for the EcoScope project, as **Ana Rodriguez** was still on maternity leave. Ana came back just in time for the conference and was then able to also start working on the follow-on project of EcoScope, SURIMI.

2024 was also the year where we had the most projects, which challenged us to deliver on both project deadlines and core activity. We believe we were able to do that, but I would invite you to read for yourself in the following pages.

**Prof. Sheila J. J. Heymans**, EMB Executive Director

# EMB mission, structure and governance

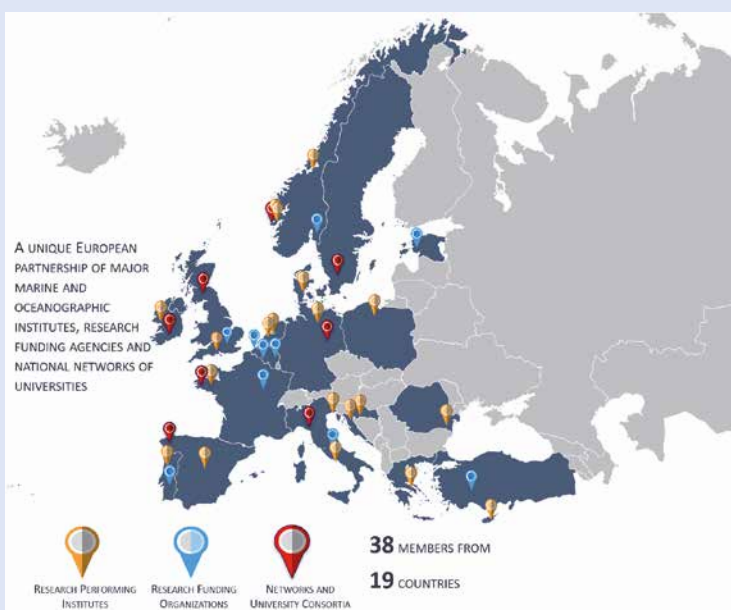
## MISSION

The European Marine Board (EMB) provides an independent platform for its Member organisations to promote common positions on research priorities and strategies in Europe, and to bridge the gap between science and policy in order to meet future marine science challenges and opportunities.

Topics of strategic interest identified by the EMB form the basis for new publications and events. These target European and national research programme managers, strategy developers, policymakers and the marine research community to drive future European and national marine research agendas, and to support strategies and policies.

**EMB acts as an independent science-policy interface, transferring and translating scientific knowledge to policymakers, and channelling policy needs back to the research community.**

## STRUCTURE AND GOVERNANCE



The European Marine Board (EMB) was established in 1995 to facilitate enhanced cooperation between European marine science organisations. Members are major national marine or oceanographic institutes, research funding agencies, or national consortia of universities with a strong marine research focus. In 2024, the EMB represented 38 Member organisations from 19 countries.



## EMB DELEGATES

The representatives (EMB Delegates) from EMB Member organisations form 'the Board', which is the highest decision-making organ of the EMB. EMB Delegates meet twice a year at Plenary meetings to share knowledge, define common priorities, and agree on activities and outputs. Observers and guests are invited to attend EMB Plenary meetings on an *ad hoc* basis. These include the European Commission (EC), the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), JPI Oceans, and other international and European marine science networks.

The EMB's mixed membership of research performing organisations, research funding organisations, and national university consortia, ensures its unique capacity to deliver science policy advice on issues of identified strategic importance and to influence European marine research agendas.

## EXECUTIVE COMMITTEE

EMB operations are overseen by the Executive Committee (ExCom). The ExCom meets three times per year to ensure the implementation of the actions agreed by the Board at Plenary meetings, make operational and financial decisions, and give strategic guidance to the Board and Secretariat. The EMB Executive Director is *ex-officio* member of the ExCom. ExCom mandates in 2023:



**Fiona Grant – Chair**  
Marine Institute (MI), Ireland  
Spring 2024 - 2027



**Alan Evans – Vice-Chair**  
Natural Environment Research Council (NERC), UK  
Spring 2020 - 2025



**Katrin Schroeder – Vice-Chair**  
National Research Council (CNR), Italy  
Spring 2020 - 2025



**Rosa Fernández Otero – Vice-Chair**  
Technological Centre of the Sea (CETMAR), Spain  
Spring 2021 - 2026



**Martin Pfannkuchen – Vice-Chair**  
Ruđer Bošković Institute (IRB), Croatia  
Spring 2022 - 2025



**François Lallier – Vice-Chair**  
Marine Universities (UM), France  
Autumn 2022 - 2025

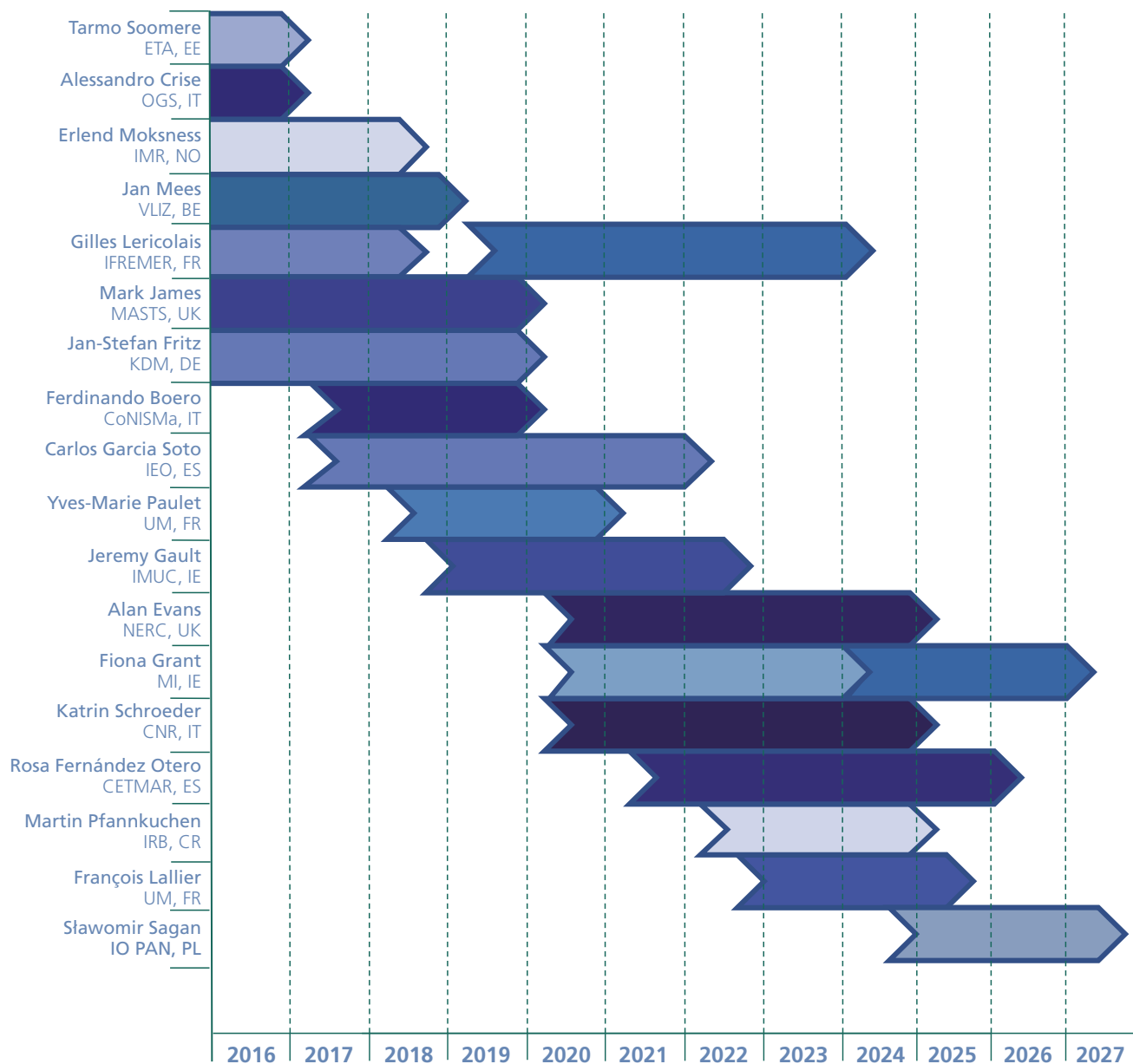


**Sławomir Sagan**  
Institute of Oceanology of the Polish Academy of Sciences (IO PAN), Poland  
Autumn 2024 - 2027



**Sheila JJ Heymans – ex-officio Member**  
EMB Executive Director

## HISTORICAL OVERVIEW OF EXCOM MEMBERS SINCE THE INDEPENDENCE FROM ESF IN 2016



## EMB SECRETARIAT

The EMB Secretariat implements the strategic and operational decisions and activities proposed by the Board and ExCom. EMB activities and the operation of its Secretariat are funded through annual Member contributions, EMB external contracts and generous support from the Flemish Government of Belgium, through the Flanders Marine Institute (VLIZ).

The EMB Secretariat is led by Executive Director **Sheila Heymans**. The team consists of four Science Officers **Paula Kellett**, **Ángel Muñiz Piniella**, **Britt Alexander** and **Ana Rodriguez**, and an Executive and Finance Officer. This role was fulfilled by **Jana Van Elslander** until March 2024 and by **Maria Teodosio** from July 2024. **Fernanda Bayo-Ruiz** also re-joined the team as a Junior Science Officer in May 2024. During 2024, two interns worked with EMB: **Konstantina Bairaktari** joined the EMB Secretariat for six months (February-August) and **Winnie Okoth** also joined for 15 days in late 2024.

The Secretariat is based at the InnovOcean Campus in Ostend, Belgium, together with the Flanders Marine Institute, ILVO and other national and international partners.



The EMB Secretariat at the InnovOcean offices in July 2024.

**From left to right:** Britt Alexander (Science Officer), Konstantina Bairaktari (Intern), Paula Kellett (Science Officer), Ángel Muñiz Piniella (Science Officer), Ana Rodriguez (Science Officer), Maria Teodosio (Executive and Finance Officer), Fernanda Bayo-Ruiz (Junior Science Officer) and Sheila Heymans (Executive Director).



## EMB YOUNG AMBASSADORS

Since 2019, EMB's Young Ambassador programme aims to strengthen collaboration with, and engagement from early career researchers. The EMB Young Ambassadors play an important role in advocating and promoting the relevance of marine science and the Ocean to their peers and wider networks. They are EMB's soundboard to a vast group of early career researchers and ensure that the voices and ideas of young researchers are reflected within the EMB's work. The Young Ambassadors engage with EMB for a two-year period after which they join the Young Ambassador Alumni Group.

### Young Ambassadors during 2024



**Riwan Leroux**

Postdoc from the French Institute for the Exploitation of the Sea (IFREMER), France



**Alexandra Hahn**

PhD candidate from Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany



**Virginia Morejón**

PhD candidate from University College Dublin (UCD), Ireland



**Laura Ciriminna**

Postdoc from the University of Palermo, Italy

### Young Ambassador activities in 2024

During 2024, the Young Ambassadors further developed the EMB Early Career Ocean Professional (ECOP) Network that was set up in 2022 with support from the EMB Secretariat. The ECOP Network aims to connect ECOPs from EMB Member organisations, provide a platform to engage with and have a voice at EMB Board level, and to inform them on the European marine science-policy landscape. In October 2024, the EMB Board voted to formalise this Network within the EMB structure, demonstrating their strong support for ECOPs and their engagement in EMB.

The Young Ambassadors also collaborated with other youth Ocean networks to create a submission for the Let's Be Nice to the Ocean initiative, a participatory process to ensure that all Ocean voices are heard and can provide input in the build-up to the UN Ocean Conference 2025. Their submission highlights the importance of involving youth and early careers in finding solutions for our Ocean. You can find out more here: <https://www.marineboard.eu/emb-ecops-submission-lets-be-nice-ocean-initiative>. The Young Ambassadors continued to organise the regular ECOP Wednesdays webinar series, where speakers from the marine science-policy landscape presented their work and insights, and then attendees engaged in a discussion (see p. 22).

The Young Ambassadors also engaged individually in a variety of different EMB activities and events. You can learn more about the EMB Young Ambassadors, see all of their activities, and read their blog articles on the EMB website: <https://www.marineboard.eu/emb-young-ambassador-programme>

## GENDER AND DIVERSITY EQUITY AND INCLUSION

Gender and Diversity Equity and Inclusion are important in marine science as they help reflect the diversity of society, attract and retain the best talent, and ensure innovation. As a European science policy think-tank, it is important for EMB to reflect the diversity of society, both at the EMB Secretariat and at Board level.

The EMB aims to ensure diverse engagement in all activities through inclusion: we aim to understand the diversity of needs linked to Ocean science, and we aim to be exemplary and serve as role models to our community. EMB also adds a statement to each publication that we are aware working towards full diversity but we understand we have not achieved it fully.



### Gender and Diversity Equity and Inclusion Plan

In 2021, the EMB Secretariat set up a Gender and Diversity Plan which included actions conducted by the EMB Secretariat and in the wider organisation. The existing plan was further elaborated and enhanced following the EMB Secretariat's engagement in Gender and Diversity Equity and Inclusion training in 2022.

The Gender and Diversity Equity and Inclusion Plan is periodically reviewed and updated by EMB Board and Secretariat. This Plan also complies with the requirements of the European Commission for eligibility to join European Projects.

The EMB Gender and Diversity Plan is available on the EMB website. It is a living document and will be updated when considered appropriate: <https://www.marineboard.eu/gender-diversity>

# Plenary meetings 2024

EMB Plenary meetings are held twice a year, online in spring and hosted by a Member organisation in autumn. During these meetings EMB Member organisations share knowledge, define common priorities and agree on activities and outputs to influence European and national marine research and policy agendas. At these meetings, EMB Delegates interact with invited speakers, guests, and observers from the European Commission, UNESCO's Intergovernmental Oceanographic Commission (IOC-UNESCO), JPI Oceans and other stakeholders.





## SPRING PLENARY MEETING | 24-25 APRIL 2024, ONLINE

On 24-25 April 2024, 44 EMB Delegates and Alternates (representatives of the EMB Members) gathered online for the EMB Spring Plenary meeting and were joined by the four EMB Young Ambassadors and 10 external speakers and observers. The full attendance list is available in Annex 2.

### EMB ExCom elections

The Board elected **Fiona Grant** (Marine Institute, Ireland) as the new Chair of EMB for an initial three-year term, following the end of **Gilles Lericolais**' (IFREMER, France) five-year term. **Rosa Fernández Otero** (CETMAR, Spain) was also re-elected for a second two-year term as Vice-Chair.

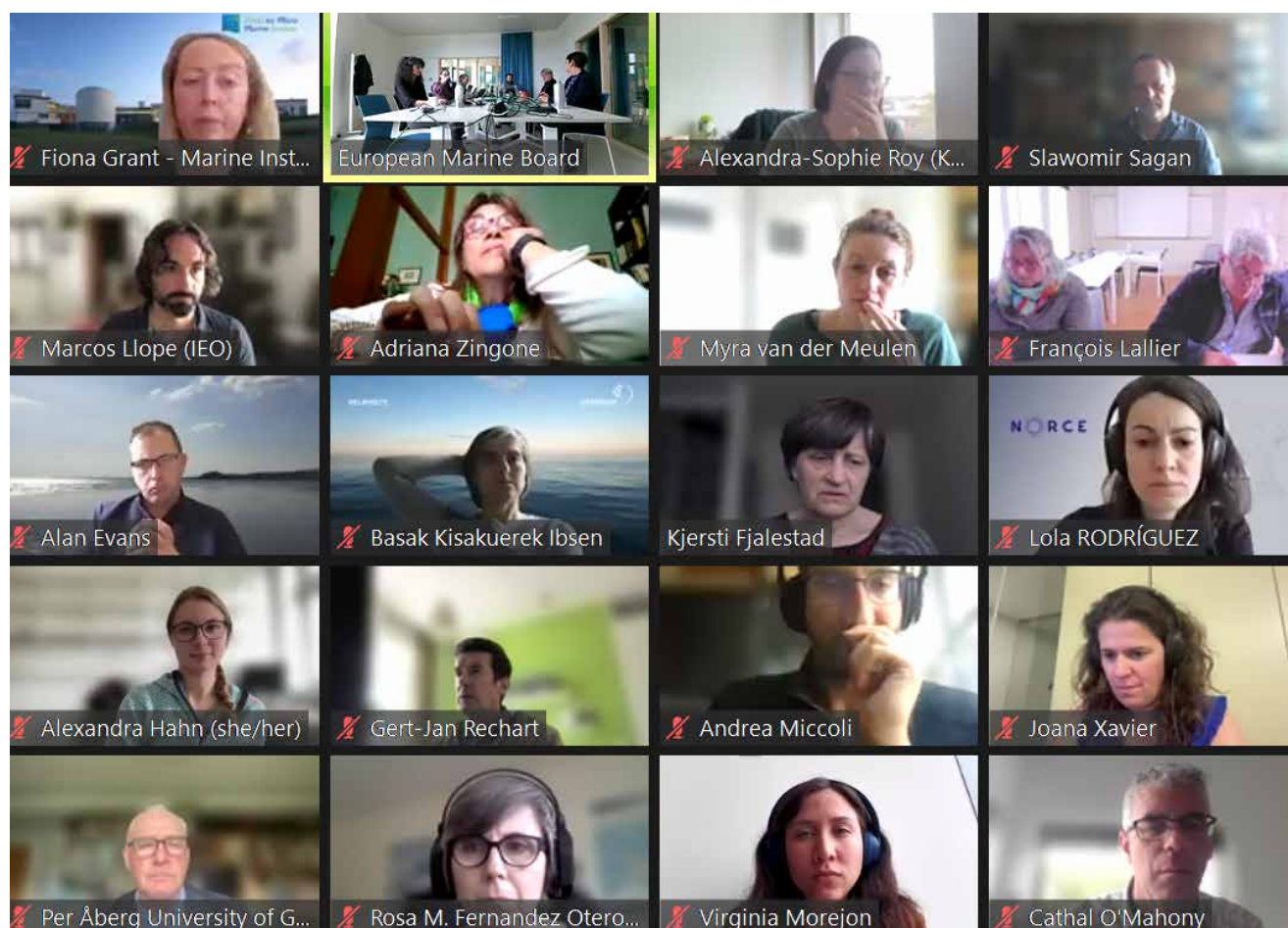
### Newly selected EMBracing the Ocean artists in Residence

The newly selected artists for the 2024-2025 edition of the EMBracing the Ocean (see p. 35) artist-in-residence programme were introduced: **Ruwanthi Gajadeera**, a Sri Lankan sustainable textile and fashion designer, and **Elise Guillaume**, a Belgian film maker and sound artist exploring the interplay of psychology, ecology and notions of care.



### Open Session

The Open Session of the Spring Plenary meeting was hosted by the EMB Secretariat on the topic of Digital Twins of the Ocean. The Open Session included presentations by **Nicolas Segebarth** (DG RTD, European Commission), **Pierre Bahurel** (Mercator Ocean International), **Ute Brønner** (SINTEF Ocean, Norway) and **Georgios Sylaios** (Democritus University of Thrace, Greece), as well as breakout discussions on the potential uses and challenges of these tools.



Some of the attendees at the online Spring Plenary 2024 meeting.

# AUTUMN PLENARY MEETING | 1-2 OCTOBER 2024, RHODES, GREECE AND ONLINE

The EMB Autumn Plenary 2024 meeting was hosted by EMB Member the Hellenic Centre for Marine Research (HCMR) in Rhodes, Greece on 1-2 October 2024 as a hybrid event. The meeting was attended by 40 EMB Member representatives, two EMB Young Ambassadors and three observers. The full attendance list is in Annex 2.

## EMB ExCom elections

**Śławomir Sagan** (IO PAN, Poland) was elected as the new EMB Vice-Chair for an initial three-year term..

## Formalisation of EMB ECOP Network

During the meeting, the EMB formalised the EMB Early Career Ocean Professionals (ECOPs) Network. This Network was established by the EMB Ambassadors in 2022 and aims to bring together ECOPs based at EMB Member organisations to help them engage in EMB activities, expand their own networks, give them a platform to have a voice at EMB level, and to inform them about how the European marine science policy landscape operates. The EMB Ambassadors will continue to run the Network and its activities and will report to the Board every 1.5 years.

## New EMB Working Group topic

A new EMB Working Group topic on 'Biomolecular approaches for the observation, management and prediction of marine life patterns and trends' was selected. The EMB Secretariat was tasked to create the Terms of Reference in collaboration with the topic proposers, and these will be tabled for Board approval in Spring 2025.

## Open Session

An open session was hosted by HCMR with the general theme of "Impacts of Climate Change in the Eastern Mediterranean Sea". The session was opened by host **Aris Karageorgis** (HCMR, Greece), and featured presentations and discussions on a variety of science topics including the history and activities of the Hydrobiological Station of Rhodes, coastal erosion, marine alien species, Ocean colour and seagrass ecosystems. Presentations were given by **Georgios-Angelos Hatiris, Gerasimos Kondylatos, Konstantinos Kalaentzis, Vivian Louizidou, Vasilis Kapsimalis, Voula Karachle, Andrew Banks, and Evgenia Apostolaki**, all of whom are affiliated with HCMR, Greece. The closing remarks were given by EMB Chair **Fiona Grant**.



Credit: EMB

The in-person attendees at the Autumn Plenary 2024 hybrid meeting at the Hydrobiological Station in Rhodes, Greece.

# EMB science-policy interactions & events

The EMB is an independent organisation funded by its Members. We provide an interface between science and policy and engage with a wide range of stakeholders in the marine science-policy field, including the European Commission, European Parliament, and International Organisations, to advance marine science in Europe and beyond. We strongly believe in two-way communication and welcome the input from policymakers to provide the best available scientific advice at the right time. We stimulate communication by organising a variety of interactive events ranging from small-scale discussions on a specific topic (e.g. Brown Bag Lunches) to large-scale overarching events (e.g. the CommOCEAN and EurOCEAN conferences).



## NAVIGATING THE FUTURE VI LAUNCH EVENT



On 23 October 2024, the sixth edition of EMB's flagship marine science foresight publication series Navigating the Future, Navigating the Future VI (NFVI) was launched at a dedicated event. The event was held at Talk C.E.C in Brussels, Belgium and Online.

Navigating the Future VI takes a holistic perspective to highlight the science needed to understand the links between the Ocean and the global Earth system, society, and public policy, so that knowledge about the Ocean can take a central role in planning for a sustainable future. In short, it aims to highlight the Ocean's place in the world.

The event featured a presentation of the document and its recommendations by former EMB Chair and NFVI Working Group Chair **Gilles Lericolais** (IFREMER, France) and **Sheila Heymans**, and responses to these messages from **Delilah Al Khudhairy** (Director - Maritime Policy and Blue Economy, DG MARE), **Rolf-Jan Hoeve** (Head of Sector - Mission and Partnerships, Ocean and Waters, DG RTD), and **Niall McDonough** (Chair, JPI Oceans). This was followed by a Q&A session and a networking reception.

The event was attended by over 30 participants from a variety of backgrounds, representing science, policy and the arts.

The publication has also been widely disseminated, including via press releases for the whole document and for the four thematic chapters, and has been further communicated in Europe and beyond.

You can find out more about Navigating the Future VI here: <https://www.marineboard.eu/navigating-future-vi> and more about the launch event here: [https://www.marineboard.eu/NFVI\\_launch](https://www.marineboard.eu/NFVI_launch).



Speakers and in-person Working Group members at the NFVI launch event. Left to right: Joao Friäs, Rolf-Jan Hoeve, Delilah Al Khudhairy, Fiona Grant, Sheila Heymans, Gilles Lericolais and Niall McDonough.

Credit: © EMB

## BROWN BAG LUNCH NO. 7: MARINE HABITAT MAPPING

EMB's Brown Bag Lunches, organised in Brussels, Belgium, bring together stakeholders to discuss marine science topics. These events start with lunch, followed by a topical presentation from an expert, and end with an interactive discussion amongst the in-person participants. Participants are usually a mix of stakeholders, such as researchers, policymakers, and industry.

The 7<sup>th</sup> EMB Brown Bag Lunch (BBL) took place on 17 June 2024 hosted by the European Commission's DG Environment at their offices in Brussels and online. The event featured the launch of the new EMB Future Science Brief No. 11 on "Marine Habitat Mapping".

The event was opened by EMB Chair **Fiona Grant** and included opening statements by **Veronica Manfredi** and **Andrea Vettori** (DG Environment) who acknowledged the relevance of the document to inform the implementation of the EU Nature Restoration Regulation, which was approved on the same day. Working Group Chairs **Simonetta Frascchetti** (University of Naples Federico II & SZN, Italy) and **James Strong** (NOC, UK) then presented the main messages from the document. This was followed by an interactive discussion with attendees.

The opening statements and presentation were live-streamed and are available on the EMB YouTube Channel:

<https://www.youtube.com/watch?v=8OxiApBqMpY>. More information can be found on the EMB website:

<https://www.marineboard.eu/events/brown-bag-lunch-ndeg-7-marine-habitat-mapping-meet-biodiversity-conservation-and-restoration>.



The speakers at the 7<sup>th</sup> EMB Brown Bag Lunch holding copies of the new EMB Future Science Brief on Marine Habitat Mapping. Left to right: Simonetta Frascchetti, Veronica Manfredi, Fiona Grant, Andrea Vettori and James Strong.

## COMMOCLEAN 2024 CONFERENCE

CommOCEAN is a unique International Marine Science Communication Conference series that is organised every two years to foster effective communication within the marine science community and beyond. The conferences aim to bridge the gap between scientific research and public understanding and sense of care, facilitating meaningful dialogue and collaboration among communicators, scientists, policymakers, educators and the public.

The CommOCEAN 2024 Conference took place on 26-27 November 2024 as an in-person event in Málaga, Spain. The Conference was organised by the EMBCP (see p. 39) and the Spanish Institute of Oceanography (IEO-CSIC). The ice-breaker event aboard the *RV Odón de Buen*, the newest oceanographic vessel of the Spanish Institute of Oceanography, served as a memorable kick-off to the conference, setting the stage for a productive and engaging gathering.

Throughout the event, participants discussed a variety of topics crucial to marine science communication and engagement. Sessions delved into effective strategies for conveying urgent information during crises and countering misinformation, fostering engagement in citizen science projects, integrating communication in fieldwork, and using storytelling for international initiatives. The conference also addressed how to engage younger audiences, write compelling scripts for animations, discussions on what makes a presentation great and creative approaches such as art collaborations, music, and visual storytelling. Throughout the event, pitch presentations, interactive discussions, and networking opportunities encouraged collaboration and knowledge sharing among participants.

One of the highlights of the conference were the excellent keynote addresses on succeeding in social media even as reach declines, and the transformative potential of AI in science communication. The conference also featured a session on bridging science and media, co-organised with the IUCN Centre for Mediterranean Cooperation. This roundtable discussion brought together media professionals to debate the key challenges and tips for successful communication, particularly in marine-related content and restoration efforts in the Mediterranean.

The next CommOCEAN Conference will be organised in September 2026 in Bergen, Norway.



Participants of the CommOCEAN 2024 conference in Málaga, Spain.



## EMB SCIENCE WEBINARS

EMB's Third Thursday Science Webinar series highlights the science that underpins or is linked to EMB publications and activities. The webinars usually take place every third Thursday of the month from 13:00-14:00 CE(S)T. The format includes a short opening by the EMB moderator, 30 minutes of presentation by one or two speakers, followed by questions posed by the audience.

All presentations and video recordings are accessible on the EMB website: <https://www.marineboard.eu/science-webinars>. The following list provides an overview of the webinars that took place in 2024.



### January 2024: Data science for offshore renewable energies: data availability and requirements for metocean analysis

**Christophe Maisondieu**, a senior researcher at IFREMER's Marine Hydrodynamics Laboratory, spoke about the metocean data which are required for the development of the offshore renewable energy industry, outlining what data are already available and what requirements remain. This webinar was linked to EMB Future Science Brief No. 9 on 'European offshore renewable energy'.

### February 2024: Blue Carbon and Nationally Determined Contributions: financing blue natural capital as Nature-based Solutions

**Torsten Thiele**, Founder of the Global Ocean Trust, and **Nathalie Hicks**, Senior Lecturer at the University of Essex, UK, presented the importance of Blue Carbon as a Nature-based Solution to climate change, and the mechanisms by which their protection could be financed. This webinar was linked to EMB Policy Brief No. 11 on 'Blue Carbon: Challenges and opportunities to mitigate the climate and biodiversity crises'.



### March 2024: Implementing Ocean Sound as an Essential Ocean Variable for the Global Ocean Observing System

In this webinar, **Peter Tyack**, a Professor at the University of St Andrews, UK and Emeritus Research Scholar at Woods Hole Oceanographic Institution, USA, presented the work of the International Quiet Ocean Experiment (IQOE) in their development of the Ocean Sound Essential Ocean variable and the supporting implantation plan. This webinar was linked to EMB Future Science Brief No. 7 on 'Addressing Underwater Noise in Europe: Current state of knowledge and future priorities'.

### April 2024: The Why, What and How of Interdisciplinary Endeavour

In this webinar, **Nicola Beaumont** who leads the Sea and Society team at the Plymouth Marine Laboratory in the UK, presented the concept and different forms of interdisciplinary working, with tips on and examples of how these collaborations can be carried out successfully. This webinar was linked to the EMB Position Paper No. 28 'Navigating the Future VI: Placing the Ocean in the wider Earth system' (see p. 24).



### May 2024: Submerged Knowledges: Filmmaking and Experiments in the Venetian Lagoon

EMBracing the Ocean artist for 2023-2024 **Sonia Levy**, a research-led visual artist, spoke about her residency project aiming to bring attention to the Venice Lagoon's submerged, life-giving and altered bio-geomorphological processes, together with curator **Chiara Famengo**. This project resulted in a film which premiered at the Floating Cinema in Venice and participatory workshops with local resource managers and policymakers.



#### July 2024: Marine microplastics and the plastisphere: Hitchhikers and their luggage

**João Frias**, a researcher at the Marine and Freshwater Research Centre of the Atlantic Technological University (ATU), Ireland, spoke about marine plastics, the biofilm layer that forms when they are in the environment, and the impacts of plastic degradation on environmental health. This webinar was linked to the EMB Position Paper No. 28 'Navigating the Future VI: Placing the Ocean in the wider Earth system' (see p. 24).

#### September 2024: Skills intelligence in the Offshore Renewable Energy sector

In this webinar, **Lefteris Sdoukopoulos**, from the Hellenic Institute of Transport (HIT), one of the five institutes of the Centre for Research and Technology Hellas (CERTH), Greece, presented the results of the recently concluded research work on building skills intelligence in the Offshore Renewable Energy (ORE) sector. This work was conducted within the framework of the FLORES project (see p. 31), of which EMB is also a partner.



#### November 2024: Discovery of animal life in the ocean's crust at deep-sea hydrothermal vents: implications for future research and management

**Sabine Gollner**, a deep-sea benthic ecologist at NIOZ, the Netherlands, gave a talk about her work on biodiversity, connectivity and resilience of deep-sea hydrothermal vent fauna, which links to EMB's upcoming Future Science Brief from the Deep Sea and Ocean Health Working Group (see p. 26).

#### December 2024: Distribution models and habitat mapping for the application of an ecosystem approach to management

This webinar, linked to the Future Science Brief No. 11 on 'Marine Habitat Mapping' (see p. 24), featured **José Manuel González-Irusta**, a researcher in benthic ecology at the Spanish Institute of Oceanography (IEO-CSIC) who spoke about modelling approaches to support habitat mapping activities



## ECOP WEDNESDAYS WEBINARS

In July 2022, the EMB Young Ambassadors started the ECOP Wednesdays Webinar series, aimed specifically at the EMB ECOP Network and focussing on the European and international marine science-policy landscape.

These one-hour webinars are hosted by EMB's Young Ambassadors, held on the first Wednesday of the month, and include presentations from professionals within the broad landscape of marine science-policy. These events give attendees a chance to learn about this complex landscape and an opportunity to interact with professionals during the discussion session.

The following list provides an overview of the webinars that took place in 2024. You can find more information on the EMB website: <https://www.marineboard.eu/ecop-wednesdays-event-series>.

### February 2024: Mitigization of the deep-sea mining policy process in Norway



**Aiste Klimašauskaitė** from the University of Bergen, Norway, discussed the process of opening areas for mineral exploration and exploitation on the Norwegian continental shelf from a policy context and considered how the expert and science knowledge base is framed and translated between different opening process steps and documents.

### March 2024: DTOECOPs Warm-Up: Shaping early careers' perspectives of Digital Twins of the Ocean

**Chloe Delpont-Ramat** and **Audrey Hasson** from Mercator Ocean international presented "EDITO: Building the core, public infrastructure of the European Digital Twin Ocean: Introduction to the EDITO-Infra Platform & Science-To-Policy Applications of EDITO". This was followed by a presentation from **Babis Ipektsidis** from Netcompany-Intrasoft on "ILIAD: Digital Twins of the Ocean: Developing virtual representations of the sea integrating earth observing, modelling and digital infrastructures to provide predictions of future developments "at sea". This webinar was linked to a DTO and ECOP's side event which took place during the UN Ocean Decade conference in Barcelona in April 2024.



### April 2024: 40 Years of Ocean Literacy: Reflecting on 20 Years History and Looking Forward to 2044



**Peter Tuddenham** from the College of Exploration, USA, reviewed the initial conditions that gave rise to Ocean Literacy in the USA and then traced how the ideas have gone global. He then engaged participants in conversations to encourage a series of personal and group actions to consider over the next 20 years of their careers.

### May 2024: Improving ECOPs' training, connection and representativity: Outcomes from the EMB ECOP Forum in Santiago

Outgoing EMB Ambassadors **Juliette Aminian Biquet** and **Alfredo Garcia** de Vinuesa presented the outcomes of the first Forum of the EMB ECOP Network, outlining ECOPs ideas on how they engage in the science-policy interface, and how we can improve ECOPs' involvement in these spaces. They presented the main challenges, how to overcome them, and some concrete tips for ECOPs to connect with policymaking.



## June 2024: Social-Ecological Network Modeling of Fish Invasions in the Panama Canal



**Michelle Hübel**, who works for Sea Forager and the California Department of Fish and Wildlife in the USA, presented her research on using social-ecological network modelling, developed using information from interviews with key stakeholders and available ecological data, to characterise how both the aquatic ecosystem and the fishing communities of the Panama Canal have changed after the expansion and the subsequent rise in marine fish species incursions.

## August 2024: Marine environmental policies: How do they get implemented and how to engage

**Sašo Gorjanc**, from the consultancy ACTeon environment based in France, explored the science-policy interface both from the theoretical standpoint and in practice, focussing on how policy actors, as in civil servants who are tasked with the implementation of environmental policies below the political level, engage with science and data and which other factors might also influence the decisions that they are making.



## September 2024: Antarctica: a continent for research and cooperation. The view of a geoscientist



**Marga García** from the Spanish Institute of Oceanography (IEO-CSIC) spoke about how research is managed for Antarctica, and her experiences of working there, primarily on research related to sedimentary processes on continental margins, and their link to global climate and geo-habitat conservation.

## November 2024: Earth Observations for Ocean Observations in Trinidad and Tobago

This webinar featured **Nikia Gooding**, a Research Officer in Remote Sensing at the Institute of Marine Affairs in Trinidad and Tobago, who shared information about the rich diversity of work in which the Institute is involved.



## December 2024: The Collective Path Towards IPOS - the Role of Youth and Early Career Practitioners



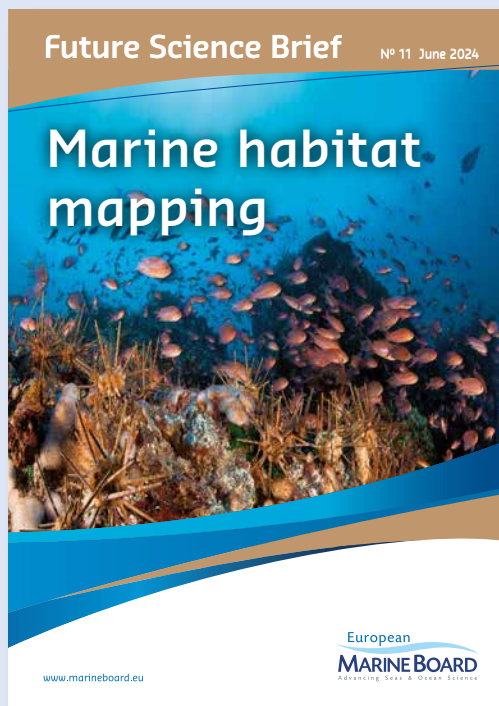
**Tanya Brodie Rudolph** and **Lucas Becquet** from the Ocean Sustainability Foundation (hosted by the CNRS Foundation) discussed the emerging International Platform for Ocean Sustainability (IPOS) as a means to support States to accelerate the implementation of their respective international commitments for the sustainable management and conservation of the Ocean. They also presented the role that ECOPs and youth can play in helping to establish this Platform.



## EMB PUBLICATIONS IN 2024

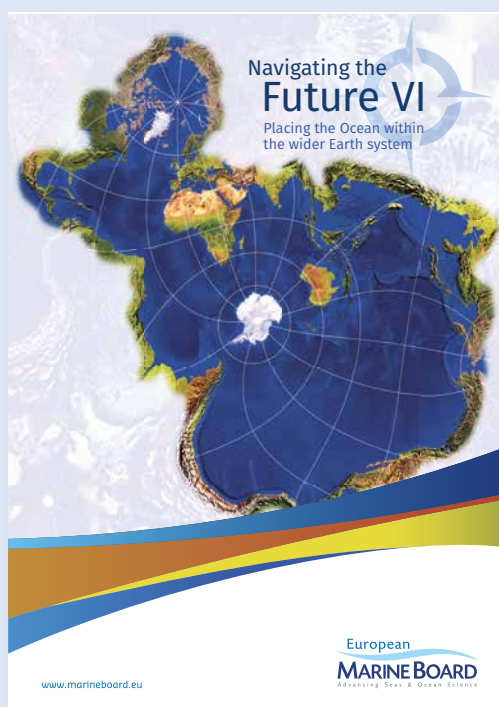
EMB has an outstanding reputation as a provider of high-quality science-policy advice. Our publications are designed for a non-technical audience, providing recommendations for future research and capacity building which can be addressed by European and national funding mechanisms.

### Marine Habitat Mapping



EMB Future Science Brief No. 11 highlights current methods and future trends in the acquisition of data from the seabed and water column. It discusses combining data to produce maps using modelling approaches and presents recommendations for adopting fit-for-purpose habitat classification schemes. It also provides an overview of what has been mapped and where within the European sea-basins. It identifies critical gaps in habitat types and geographic extent and closes by describing the need to improve the assessment and communication of uncertainty and confidence in maps, and to make maps more easily accessible to a variety of stakeholders to increase their value for end-users and to the public for Ocean literacy.

### Navigating the Future VI: Placing the Ocean within the wider Earth system



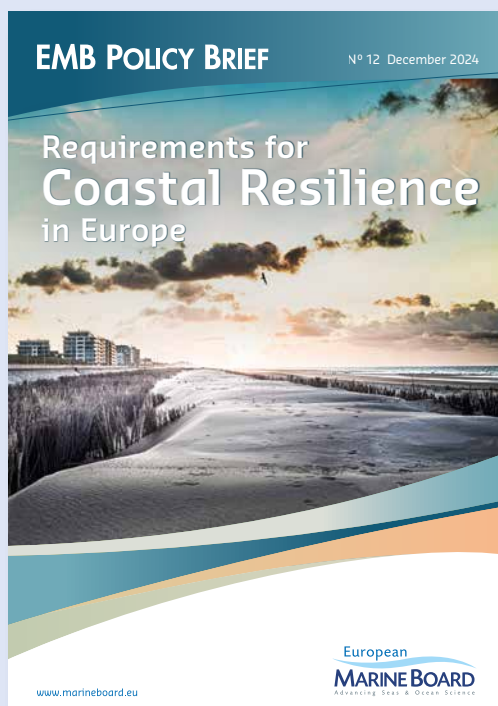
Position Paper No. 28 is the sixth publication in the flagship EMB Navigating the Future series which provides regular pan-European summaries of the current status of marine research, priority recommendations and future scientific challenges in the context of European societal needs. Navigating the Future VI considers the role of the Ocean in the global Earth system, and hence proposes recommendations on marine science research needs to support our understanding of this system and global challenges. It focuses on four key themes: Ocean and People, Ocean and Climate, Ocean and Fresh Water and Ocean and Biodiversity.

## EurOCEAN 2023 Conference Proceedings



The EurOCEAN 2023 Conference took place in Vigo, Spain on 10-11 October 2023. The main theme of the conference was “One Ocean, One Mission, One Decade - One Voice”. Over 350 participants from across Europe gathered in person or followed online, representing academia, early career researchers, policymakers, industry, and NGOs. This document is a summary of the presentations and discussions which took place. It also presents the Vigo Declaration which was approved during the Conference.

## Building Coastal Resilience in Europe



Coastal systems face an increasing number of interacting pressures due to climate change and various human activities. The resilience of coastal communities and their natural environments is essential to safeguard life, ecosystems and economies in the face of current and future challenges. EMB Policy Brief No. 12 provides an overview of approaches for the governance and management of coasts and their human communities towards resilience, and the knowledge required to build coastal resilience, with a specific focus on coastal protection and Nature-based Solutions. It summarises the main messages and recommendations from the EMB Position Paper No. 27 “Building Coastal Resilience in Europe”.

All EMB publications are available on the EMB website or you can request hard copies via the EMB Secretariat:  
[info@marineboard.eu](mailto:info@marineboard.eu)

# Ongoing thematic activities

## DEEP SEA AND OCEAN HEALTH

The Working Group (WG) on Deep Sea and Ocean Health is chaired by **Sylvia Sander** (GEOMAR, Germany), the Co-Chair is **Christian Tamburini** (Mediterranean Institute of Oceanography, France), and the WG includes 11 members (see Annex 3).

In April 2024, the WG met in person for the second time in Brussels, Belgium, kindly hosted by the JPI Oceans Secretariat. After meeting several times online, the WG wished to discuss the document state of play and agree on recommendations. The document was subsequently finalised and went for external and internal peer-review during summer 2024.

The upcoming Future Science Brief No. 12 on “Deep Sea Research and Management Needs” highlight the importance of the deep sea and the significant challenges research faces due to logistical and financial constraints, resulting in notable knowledge gaps. The document also highlights the legal aspects of managing the deep sea, and the importance of measuring and understanding baseline conditions in the deep sea, and the impacts of human activities, both crucial for informed decision-making and sustainable management of a healthy Ocean and planet. The document provides recommendations for policy and management, research requirements and monitoring of the deep sea, and on how to build capacity from a global perspective.

The Future Science Brief No. 12 will be published in 2025.

**Ángel Muñiz Piniella** is the Science Officer supporting this WG and more information on the WG and the publication is available on the EMB website: <https://www.marineboard.eu/deep-sea-and-ocean-health>



Members of the EMB WG Deep Sea and Ocean Health at the second in person meeting in Brussels, Belgium

Credit: © EMB



## MARINE CARBON DIOXIDE REMOVAL

The Working Group (WG) on Marine Carbon Dioxide Removal (Marine CDR) is chaired by **Helene Muri** (NTNU, Norway), the Co-Chair is **Olivier Sulpis** (CEREGE - Aix-Marseille University, CNRS, IRD, France), and the WG includes 13 members (see Annex 3).

Given the increasing importance of Marine Carbon Dioxide Removal, the EMB Board voted in 2023 to work towards a new EMB publication on this topic. The Working Group will specifically focus on monitoring, reporting and verification (MRV) of these activities. In August 2024, a kick-off meeting of the WG took place at the InnovOcean campus in Ostend, Belgium and the WG has continued to meet online throughout the year.

The aim of this Future Science Brief is to present different methods of marine CDR, their key challenges and the knowledge needed for effective monitoring, reporting and verification (MRV), the state of play of observations, modelling, regulations and governance. The document will also present existing protocols, highlight uncertainties and how to overcome these. The document will be primarily written from a European perspective, but due to the global nature of marine CDR, it will have global relevance.

**Ángel Muñoz Piniella** is the Science Officer supporting this WG and more information on this WG and the publication is available on the EMB website: <https://www.marineboard.eu/marine-carbon-dioxide-removal>



Credit: © EMB

Members of the EMB WG Marine Carbon Dioxide Removal at the kick-off meeting in Ostend, Belgium.



# European projects and external interactions

The European Marine Board participates in externally funded projects, tenders and other initiatives when these contribute to our Mission and future strategic objectives.



## BRIDGE-BS

The EMB Secretariat participates in the H2020 Project BRIDGE-BS, which aims to enhance science-based policy in the Black Sea region to develop blue growth while maintaining and protecting resilient ecosystems. The project is led by the Middle East Technical University, Türkiye, and includes 33 partners. It runs from 1 June 2021 until 30 November 2025 and has a budget of €9.4m. The project is developing predictive tools and capabilities to understand and predict the impacts of climate-driven and anthropogenic multi-stressors on the services stemming from Black Sea ecosystems. These services and their responses to stressors are being mapped, monitored and modelled in order to identify a safe operating space within which a sustainable blue economy can flourish.

The EMB Secretariat contributes to Work Package (WP) 8 'Science-based policy making for Blue Growth' led by the International Center for Black Sea Studies (ICBSS) and the Technological Centre of the Sea (CETMAR). The objectives of WP8 are to ensure the uptake of the science developed within BRIDGE-BS by engaging policy stakeholders, strengthening the science-policy nexus, and to contribute to science-based policy making for blue growth in the Black Sea. The EMB Secretariat leads a sub-task that will produce an International Policy Brief highlighting the key policy-relevant outcomes of the project, how they can improve the implementation of marine EU and international policies in the Black Sea region', and future research and policy needs in the region. The Policy Brief will be launched at the BRIDGE final conference in Autumn 2025. This will build on the key outputs of the project, such as new predictive tools, recommendations for ecosystem-based adaptive management, and safe operating boundaries/ecosystem limits for a sustainable blue economy.

In 2024, **Britt Alexander** and **Sheila Heymans** worked with the Policy Brief writing team to start developing the publication. This included a number of online meetings with the writing team to share project updates relevant for the Policy Brief and to develop the document outline. On 18-20 September, Britt attended the BRIDGE-BS General Assembly in Tbilisi in Georgia. A dedicated workshop was also organised alongside the General Assembly to refine the Policy Brief outline, assign writing tasks, and carry out a foresight brainstorm to identify future science and policy priorities. A further online meeting with the writing group was held in December 2024 during which the outline for the Policy Brief was finalised. Sheila also gave a talk at the BRIDGE-BS Online Workshop on Coastal Observation Systems Confirmation in May 2024 to highlight the outcomes of EMB's Ocean observation publication and work in this area to provide inspiration for the coordination of Ocean observations in the Black Sea region.

More information about the BRIDGE-BS Project can be found here:

<http://bridgeblacksea.org/>



EMB Science Officer, Britt Alexander, leading the Policy Brief foresight workshop at the BRIDGE General Assembly in Tbilisi, Georgia, September 2024.

Credit: © BRIDGE-BS project

## ECOSCOPE

EcoScope (Ecocentric Management for sustainable fisheries and healthy marine ecosystems) is a Horizon 2020 Project that started in September 2021 and will run until August 2025, with a budget of €7.9m. The project is coordinated by Aristotle University of Thessaloniki, Greece and involves 24 partners from 17 countries. The aim of EcoScope is to promote effective ecosystem-based fisheries management by developing easy to use e-tools that can be used to explore different management options and their consequences in the full ecosystem context. The project will produce an interoperable EcoScope Platform and a robust decision-making EcoScope Toolbox, available through a single public portal.

The EMB Secretariat leads Work Package (WP) 8 on 'Interaction with stakeholders and capacity building'. The main tasks involve stakeholder mapping, stakeholder management planning, and identifying the needs of policymakers and stakeholders through three strategic workshops and targeted surveys. The EMB Secretariat also participates in WP7 'Assessing societal expectations and economic values', where we will lead a task on writing a Policy Brief on community preferences, in WP5 'Assessing the ecosystem and its components', in WP1 'Project management' and WP10 'Dissemination and visibility'.

In 2024, EMB organised the Ecopath 40 years conference and courses, which took place on 3-8 June 2024 at the InnovOcean Campus in Ostend. This conference was relevant to EcoScope because the ecosystem models which the project is developing are based on Ecopath with Ecosim. The conference was also supported by the project, amongst others, and was endorsed as an Ocean Decade action. **Sheila Heymans** and **Ángel Muñiz Piniella** were heavily involved in the organisation of the conference, and **Ana Rodriguez** and **Fernanda Bayo Ruiz** helped with the organisation after re-joining the team in May 2024. The full EMB Secretariat helped with the delivery of the conference. You can find out more about this conference here: <https://www.ecopath40.org/>

In April Sheila attended a modelling workshop to ensure that the models are policy relevant. In July, Ana organised a meeting with DG Environment to discuss the biodiversity indicators which are being developed in the project to make sure they are relevant to the implementation of the MSFD. In November, Sheila (in person), Ana and Fernanda (online) attended the General Assembly in Mallorca, Spain. Fernanda and Ana started working on the Policy Brief, and Ana attended all other relevant project meetings and provided feedback and support to other deliverables as needed.

Throughout the year, the EMB Secretariat have participated in project meetings. More information about the EcoScope Project can be found here: <https://ecoscopium.eu/>.



Attendees at the Ecopath 40 Years Conference in Ostend, Belgium in June 2024

## FLORES

FLORES is an ERASMUS+ Project that kicked off in January 2023 and will run until March 2025, with a total budget of €700,000. The project was coordinated by CETMAR, Spain. The project feed into the European Pact for Skills for Offshore Renewable Energy, promoting a strong and large-scale partnership to upskill and reskill Europeans from all career stages to boost the Offshore Renewable Energy sector.

EMB's tasks mainly involved the dissemination of and discussion on the recommendations that were made in the EMB Future Science Brief No. 2 on Training the 21<sup>st</sup> Century Marine Professional, as well as those from the Future Science Brief No. 9 on Offshore Renewable Energy, which link specifically to training and capacity building needs for this sector. Further, EMB promoted the link between the project and the marine science research community and support dissemination and communication of the project and its outputs.

In 2024, **Paula Kellett** engaged in a number of project meetings and workshops, including the General Assembly in March 2024, bringing marine science training recommendations

and perspectives to those discussions. In September 2024, EMB organised a Science Webinar linked to the project (see p. 21), and throughout the year, EMB supported ongoing communication and dissemination activities and the promotion of project results.

More information about the FLORES Project can be found at: <https://oreskills.eu/>



Credit: © FLORES Project

Participants of the FLORES General Assembly in Brussels, Belgium in March 2024.

## EMODNET TENDER IN SUPPORT OF EOOS

From January 2022 until December 2025, the EMB Secretariat is involved in the EMODnet Phase IV tender, led by Seascope Belgium Consultants. This is directly linked to EMB's work on the EOOS Framework (see p. 38).

In 2024, the EMB Secretariat contributed to the task on targeted assessment, supporting the EMODnet Secretariat. This task continued the study on the Regional Sea Convention/Regional sea-basin coordination of joint monitoring/Ocean observation started in 2023. In the summer of 2024 the team undertook more in-depth interviews with Regional Sea Conventions, to better understand their support and collaboration to the monitoring conducted for the EU MSFD. In addition, the Arctic Sea coordination of Ocean observing was investigated through interviews with organisations involved in Ocean observations in the Arctic. A report on this work was finalised in December 2024, and submitted to the European Commission. The report will become available in 2025 and will provide updated information from the 2023 report: [https://emodnet.ec.europa.eu/sites/emodnet.ec.europa.eu/files/public/reports/Targeted%20assessment%20on%20ocean%20observation%20coordination%20and%20marine%20data%20pipeline%20Regional%20Sea%20focus%20%5BD5.3%5D\\_2.pdf](https://emodnet.ec.europa.eu/sites/emodnet.ec.europa.eu/files/public/reports/Targeted%20assessment%20on%20ocean%20observation%20coordination%20and%20marine%20data%20pipeline%20Regional%20Sea%20focus%20%5BD5.3%5D_2.pdf).



## RHE-MEDIATION

From July 2023 until May 2026, the EMB Secretariat participates in the Mission Ocean Mediterranean Lighthouse Project RHE-MEDiation. The project has a total budget of ca. €7m and aims to provide tools and methodologies to destress the Mediterranean Sea from chemical pollution. The project is coordinated by RINA, Italy.

EMB is leading subtask 6.3 on ‘Scaling up governance through bottom-up knowledge transfer from local through National to European level’. Within this task, EMB will collate the results from the project sites (in Italy, Greece and Türkiye) into a Policy Brief that will showcase the outcomes of the project and its importance to the Marine Strategy Framework Directive, the Water Framework Directive and the Urban Waste Water Treatment Directive. This document will be translated into relevant languages to inform national implementation. This document will also be relevant to other sea-basins, to replicate the Mediterranean Lighthouse results to other basins. EMB is also engaging in subtask 8.4 on ‘Regulatory assessment and contribution to EC Directives’ by liaising with other consortium partners and feeding back relevant information to the Directorate-General for Environment from the European Commission to ensure ongoing awareness of the project, its results and outputs, and its relevance for EU Directives.

**Ángel Muñoz Piniella** attended the Second General Assembly on 25-26 June 2024 in Taranto, Italy as well as other relevant online meetings. Preparation for the development of the Policy Brief started during summer 2024, and at Third General Assembly on 3-4 December 2024 in Athens, Greece, **Sheila Heymans** and Ángel led a workshop with the partners to discuss this further. A meeting was also held in August 2024 with DG Environment to discuss the content of the eventual publication and ensure policy relevance.

More information about the RHE-MEDiation Project can be found here:  
<https://rhemediation.eu>



The RHE-MEDiation photobioreactor system, installed at the Thrasio Wastewater Treatment Plant outside Athens (Greece). This microalgae-based technology is integrated in the existing system and helps to reduce the content of heavy metals, PFAS, pharmaceuticals and pesticides in the processed wastewater, before being discharged into river catchments and the coast.

## BAMBOO

BAMBOO (Build sCAled Modular Bamboo-inspired Offshore sOLar systems) is a Horizon Europe Project that started in January 2024 and will run until December 2026, with a budget of €7m. The project is coordinated by RINA Consulting, Italy and Oceans of Energy, The Netherlands and involves 15 partners from 7 countries.

BAMBOO aims to tackle the barriers for the implementation of a sustainable, large-scale offshore Floating PhotoVoltaics (FPV) system of 150 MW, and act as a blueprint for rollout of offshore FPV projects in Europe, to be implemented in conjunction with the offshore wind energy partners.

EMB leads Task 3.3 on organising and running a subject matter expert engagement workshop. At this workshop, marine and social science experts will be brought together to consider the potential environmental and societal impacts of offshore floating solar installations and will inform the impact assessment strategies developed by the project. EMB also leads Task 5.2 on EU policy development and research, where EMB will create a policy-facing publication on the main messages and recommendations of the project. EMB will also support other dissemination and communication of the project and its results.

In 2024, **Konstantina Bairaktari** worked on her Masters thesis project with **Paula Kellett** to address the potential impacts of large-scale floating offshore solar installations, both alone and in combination with wind farms. Her research used the existing literature and expert interviews as inputs, and the resulting project will inform the development of the subject matter expert engagement workshop agenda and invitation list. Throughout the year, Paula also attended project meetings, including the online General Assembly on 11 July 2024, and engaged in other relevant project activities.

More information about the BAMBOO Project can be found here:  
<https://www.bamboo-offshoresolar.eu/>



In-person participants of the BAMBOO kick-off meeting in The Hague, The Netherlands in January 2024.

Credit: © BAMBOO Project

## TOWARDS IPOS

Towards IPOS (International Platform for Ocean Sustainability) is an EU EMFAF tender that started in January 2024 and will run until February 2026, with a budget of €985,000. The project is coordinated by Ramboll Management Consulting, Germany and involves 8 partners.

The proposed International Platform for Ocean Sustainability (IPOS) aims to provide enabling mechanisms at the knowledge-society-policy interface by acting a new gateway to connect knowledge and decisions for a sustainable Ocean. The Towards IPOS project aims to establish how an IPOS would strengthen international Ocean governance. It involves analysis of the current effectiveness, salience, legitimacy and comprehensiveness of current global Ocean knowledge organisations and processes, thereby determining the feasibility and rationale for the establishment of an IPOS. This information will feed into the development of the Terms of Reference for IPOS as an organisation, which will be co-developed via wide stakeholder consultation. The project also involves establishing interim Secretariat functions, negotiations to secure a hosting agency, political outreach, communications, and various stakeholder engagement events.

The EMB Secretariat is leading on Task 2.2. on IPOS Secretariat functions as well as contributing to Task 1.2 on gathering best practices for Secretariats of existing assessment organisations to inform the establishment of an IPOS Secretariat and contributing to Task 2.1 on developing the IPOS Terms of Reference.

In 2024, **Britt Alexander** and **Sheila Heymans** conducted interviews with six Global and Regional Environmental Assessment Secretariats (IOC-UNESCO, Eklipse, GESAMP, IPBES, IPCC and ICES), extracted best practices and provided recommendations for the Secretariat and governance set up of a future IPOS. They also contributed to developing the IPOS Strategic Overview document and IPOS Frequently Asked Questions (FAQ) document, which form the basis of the Future Terms of Reference.

More information about the Towards IPOS Project can be found here: <https://ipos.earth/>

## SURIMI

SURIMI is a Horizon Europe Project that started in May 2024 and will run until April 2027, with a budget of €3m. The project is coordinated by NORCE, Norway and involves 8 partners from 6 countries.

SURIMI seeks to provide easy-to-use and freely available tools that help evaluate the effectiveness of fisheries management interventions. These tools will draw on expert fisheries dynamics models, integrating innovative and reliable socio-economic and ecological models. The SURIMI Toolbox will include natural language processing, i.e. the possibility to run these models through written text and produce text explanations of the results, as well as a user-friendly graphical user interface. The whole SURIMI toolbox will be integrated into the EU Digital Twin Ocean.

EMB leads WP1 on Co-creation, stakeholder engagement, dissemination, exploitation, and communication. EMB's main role is to ensure that the SURIMI toolbox is co-designed with relevant stakeholders so that their needs are met. To this end, we will organise three stakeholder workshops and a survey. EMB will also lead the task of stakeholder mapping and setting up a Stakeholder Forum.

**Sheila Heymans** and **Ana Rodriguez** attended the online kick-off meeting in May 2024 as well as the first General Assembly in Bergen, Norway in September 2024. In order to ensure that the SURIMI tools meet key stakeholder needs, Ana performed an extensive stakeholder mapping, and, together with **Fernanda Bayo Ruiz**, set up the SURIMI Stakeholder Forum. Ana also started the organisation of the first stakeholder workshop, which will be held on 11 February 2025, and attended all relevant project meetings and activities.

More information about the SURIMI Project can be found here: <https://www.surimi-project.eu/>

## TARGETED INTERVENTIONS

### UN Ocean Decade of Ocean Science for Sustainable Development



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

The United Nations Decade of Ocean Science for Sustainable Development (Ocean Decade) runs from 2021-2030. As an Ocean Decade Implementing Partner for Europe, the European Marine Board has committed to support the Ocean Decade through various activities and events and ensures that its activities support the goals and challenges of the initiative.

The Secretariat coordinates with fellow European Implementing Partners, as well as the Ocean Decade Unit of IOC through period meetings, to ensure complementarity between the different activities. A full overview of the EMB Secretariat's Ocean Decade related activities in 2024 is listed here, and you can find out more on the EMB website: <https://www.marineboard.eu/emb-and-ocean-decade>

#### EMB Publications

Each EMB publication published in 2024 (see p. 24) includes a dedicated box highlighting in what way they contribute to the Ocean Decade challenges and objectives, and the documents are submitted for endorsement as Decade Activities.

In 2024, the EMB Marine Habitat Mapping Working Group and its resulting publication were featured as a best practice of science to policy work in the IOC-UNESCO publication "An ocean of life: how the UN Decade of Ocean Science for Sustainable Development is supporting implementation of the Kunming-Montreal Global Biodiversity Framework". The document can be found here: <https://unesdoc.unesco.org/ark:/48223/pf0000391687>

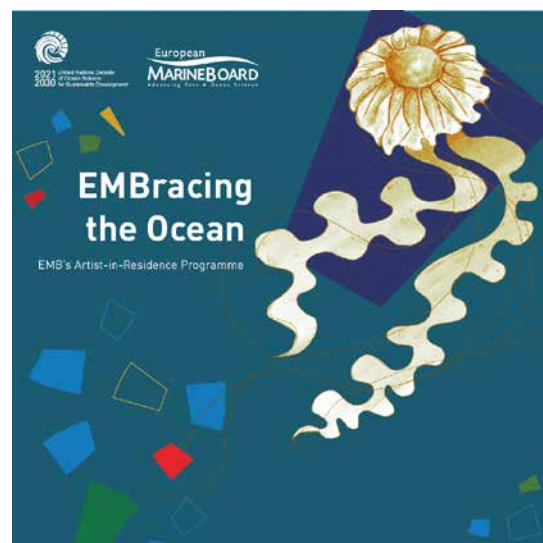
#### EMB Events

The Ecopath 40 Years Conference which took place in Ostend, Belgium from 3-8 June 2024 (see p. 30) was officially endorsed as an Ocean Decade activity.

#### EMBracing the Ocean programme

The EMBracing the Ocean programme is an endorsed Ocean Decade activity and provides €10,000 grants to artists from a wide range of disciplines to produce and disseminate new works through a co-creation process with Ocean scientists. The programme aims to raise societal awareness of the Ocean's value and inspire behavioural change for a sustainable future, while contributing new insight and/or perspectives to science. The residencies run from April for a full year.

A third call for artists was opened in January 2024, and a total of 224 applications (59% female, 30% male, 2% other, 9% undefined) were received from 42 countries worldwide. The EMBracing the Ocean Committee evaluated and selected the awardees based on relevance and quality of previous work, quality of provisional ideas, potential for reaching as wide an audience as possible, potential for raising awareness of the Ocean, and for inspiring behaviour towards sustainability.





Two artists were selected for the 2024-2025 programme: **Ruwanthi Gajadeera**, a Sri Lankan textile and fashion designer, and **Elise Guillaume**, a Belgian video and sound artist.

#### **Ruwanthi Gajadeera: 'S.O.S – Save Our Seas'**

**Ruwanthi Gajadeera** is collaborating with and being mentored by Sri Lankan marine biologist and Ocean educator **Asha de Vos**. Their project is entitled 'S. O. S. - Save our Seas' and explores the devastating legacy of the X-Press Pearl disaster on Sri Lankan marine life, and hope for the future. They are working together to transform Asha de Vos' data and Oceanic heartbreak into a multi-sensory



Credit: © SLD - Sri Lanka Design



Credit: © Mercedes-Benz Fashion Week Sri Lanka

Left: Sri Lanka Design Festival exhibition of 'SOS': L to R: British High Commissioner to Sri Lanka, Andrew Patrick; Ruwanthi Gajadeera; Linda Speldewinde, Design Corp Group; Douglas McLennan -Graduate Fashion Foundation; Nimini Jayasinghe, Academy of Design. Right: 'SOS' runway show featuring Ocean conservation inspired, sustainable designs.

exhibition incorporating textures, scents, sounds and heritage craft, aiming to ignite action and empower individuals for a healthy Ocean. Ruwanthi conducted a research and creation phase of the project to develop the narrative together with Asha, researching Ocean-inspired scents, gathering upcycled materials and underwater sound recordings, and assembling artworks, fragrances, and garments all supported by

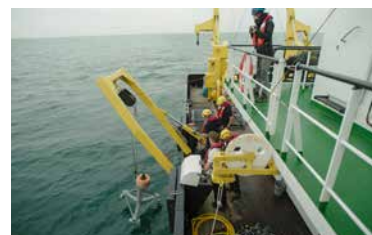
scientific evidence. In November 2024 they held a pilot exhibition and sustainable fashion workshops at Sri Lanka Design Festival, and a runway show at Mercedes-Benz Fashion Week in Sri Lanka. A final exhibition is planned at the Royal College of Art in London in March 2025 and potentially also a runway show, at London Fashion Week 2025.

Find out more about **Ruwanthi Gajadeera's** work on the EMB website:

<https://www.marineboard.eu/ruwanthi-gajadeera>.

#### **Elise Guillaume: 'Waves of Resonance'**

**Elise Guillaume** is a Belgian artist exploring the interplay of psychology, ecology and notions of care. During her EMBacing the Ocean residency she created a sonic project that addresses the psychological impact of climate change and the therapeutic potential of Ocean sounds. She is collaborating with psychologist **Marine Severin** (VLIZ, Belgium) and acoustic ecologist **Clea Parcerisas** (VLIZ, Belgium). They created an evolving sound piece based on recordings from the North Sea and the Arctic, and are leading workshops where participants engaged with the piece and generate valuable data that will shape the soundscape's final output, while advancing scientific research. During 2024, Elise undertook fieldwork on the Belgian coast to gather photography and sound recordings from the VLIZ Research Vessel Simon Stevin. Workshops took place with art students and the general public at the Royal College of Art in London in October 2024 and at the Ostend (Belgium) Day of Marine Science in November 2024. She is also using photography to document the coastal landscape and the scientific recording processes, using a seaweed solution to develop the photographs. The project aspires to inspire pro-environmental attitudes and behaviours and is planned to be shown in various exhibitions along with other outreach products.



Left: Waves of Resonance research workshop led by Marine Severin and Elise Guillaume at the Royal College of Art, London. Right: Acoustic equipment being deployed with VLIZ acoustic team, North Sea, 2024

Credit: © John Janssens & Elise Guillaume

Find out more about the work of Elise Guillaume on the EMB website:

<https://www.marineboard.eu/elise-guillaume>.

## EU MISSION: RESTORE OUR OCEAN AND WATERS BY 2030



The EU Mission: Restore our Ocean & Waters (Mission Ocean) is an initiative of the Horizon Europe Research and Innovation programme that runs from 2021-2027 to help achieve the marine and freshwater targets of the European Green Deal. The Mission Ocean Charter collates all voluntary contributions to the Mission Ocean's objectives to help their achievement by 2030.

The EMB Secretariat endorsed the Mission Ocean Charter in 2022 and has since then pledged actions to support the Mission Ocean objectives and enablers, which will contribute to the successful implementation of the Mission. All EMB Secretariat Mission-related activities and events in 2024 are listed here.

### EMB publications

The contribution to the Mission Ocean objectives and enablers is highlighted within each EMB publication. The following publications were published in 2024:

- Future Science Brief No. 11: Marine Habitat Mapping (June 2024). This publication contributes to Mission Ocean Objective 1 and the two cross-cutting enablers.
- Position Paper No. 28: Navigating the Future VI (October 2024). This publication contributes to Mission Ocean Objective 1 and 2.
- EurOCEAN 2023 Proceedings. This event contributed to all Mission Ocean Objectives and cross-cutting enablers.

### EMBracing the Ocean Programme

The EMB's artists-in-residence projects from the EMBracing the Ocean programme 2024-2025 (see p. 35) contribute to the Mission Ocean objectives and enablers.

- **Ruwanthi Gajadeera:** Sri-Lankan textile and fashion designer Ruwanthi's project 'S.O.S – Save Our Seas' project exploring the devastating legacy of the X-Press Pearl disaster on Sri Lankan marine life and future recovery, contributes to the Mission Ocean enabler 'Public mobilisation and engagement' and objective to 'prevent and eliminate pollution of our ocean, seas and waters'.
- **Elise Guillaume:** Belgian visual artist Elise's sonic project addressing the psychological impact of climate change and the therapeutic potential of Ocean sounds contributes to the Mission Ocean enabler 'Public mobilisation and engagement' and objective to 'protect and restore marine ecosystems and biodiversity'.

### Communication

In 2024, the EMB Secretariat continued to spread the message of the Mission Ocean widely by highlighting Mission Ocean-related news in the weekly EMB newsletter (see p. 40), and by making all Mission-related activities from the EMB Secretariat and Members available on the EMB website: <https://marineboard.eu/emb-and-eu-mission>.

## OCEAN OBSERVING



European  
Ocean  
Observing  
System

Since 2015, EMB and EuroGOOS have been working together to promote and facilitate the establishment of the future European Ocean Observing System (EOOS) with a framework to strengthen coordination. Since

September 2017, EMB is also a partner in the implementation of EMODnet, specifically supporting the development of the European Ocean Observing System by promoting Stakeholder Dialogue. From January 2022 until December 2025, EMB is involved in the EMODnet Phase IV workplan to continue supporting this line of activities (see p. 31).

The European Marine Board is represented in the EOOS governance by **Sheila Heymans** (Vice Chair of the EOOS Steering Group, and Chair of the EOOS Advisory Committee), and **Ángel Muñoz Piniella** as secretariat support. In 2024 the main EOOS Framework discussions were about the proposed EU initiative on “Ocean observation – sharing responsibility”, and the role the Framework could have when implemented. This included two EOOS Steering Group Meetings in April and October 2024, two EOOS Operations Committee Meetings in May and November 2024, an EOOS Advisory Committee Meeting in October 2024 (chaired by Sheila), and an EOOS Resources Forum Meeting in November 2024. More information is available on the EOOS website:

<https://www.eoos-ocean.eu/>



European  
Ocean  
Observing  
System

### Strategy 2023-2027

Advancing EOOS - the foundation of European ocean knowledge

# EMB panel

## EUROPEAN MARINE BOARD COMMUNICATION PANEL

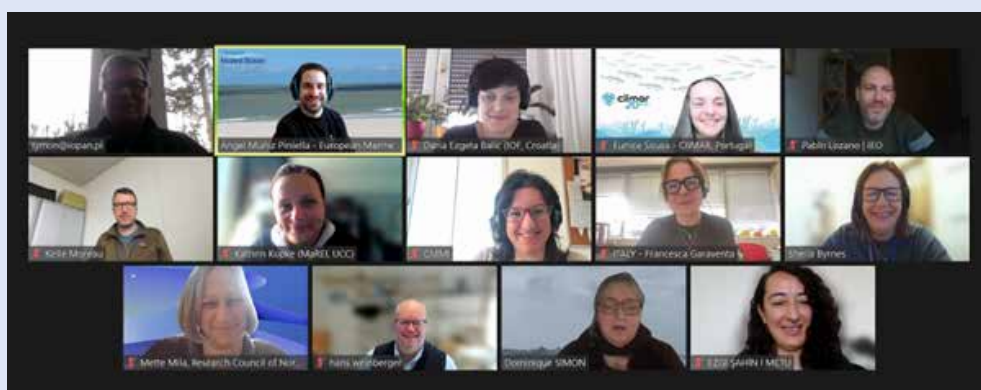
The EMB Communication Panel (EMBCP) provides a pan-European platform for marine science communicators to promote EMB activities, to synergise outreach activities, and to advocate Ocean Literacy. In 2024 the EMBCP consisted of 20 Members from 14 countries and welcomed new delegates in November from GEOMAR (Germany), NMUC (Norway), CIIMAR (Portugal), and IEO-CSIC (Spain).

In June 2024, **Tymon Zieliński** (IO PAN, Poland) was elected as the new EMBCP Chair with an initial three-year mandate, replacing outgoing Chair **Maria del Carmen García Martínez** (IEO-CSIC, Spain). He presented the activities of the Panel at the EMB Autumn plenary meeting in October 2024. In November 2024, **Kelle Moreau** (RBINS, Belgium) was elected as EMBCP Steering Group member for a mandate of 2 years.

The main focus of EMBCP in 2024 was the organisation of the CommOCEAN Conference which took place in Málaga, Spain on 26-27 November 2024 (see p. 19). These conferences are organised every two years, and the EMBCP has already started working on its next edition in 2026.

The EMBCP met twice in 2024: online on 21 March and in person on 28 November back-to-back with CommOCEAN 2024 conference and hosted by IEO-CSIC in Spain.

You can find out more about this Panel on the EMB website: <https://www.marineboard.eu/embcp>.



Participants at the EMBCP Spring 2024 online meeting.

Credit: © EMB



# Communication and outreach

The EMB uses a variety of channels to reach its stakeholders, including disseminating publications at conferences, media campaigns for EMB events, and online outlets including Twitter/X, Bluesky, Facebook, LinkedIn, Instagram, YouTube, newsletters, and the EMB website.

## EMB website

The EMB website is regularly updated with information on the expert Working Groups, EMB strategic areas and activities, and the EU projects that the EMB Secretariat is involved in. All EMB's publications are available to download from the website free of charge.

In 2024, the website was visited 69,042 times, with visitors from 199 countries. There were 11,616 downloads of EMB documents and others from the EMB website, of which the top five were:



1. Future Science Brief No. 11 on 'Marine Habitat Mapping' (787 downloads)
2. Position Paper No. 28 on 'Navigating the Future VI' (608 downloads)
3. Position Paper No. 27 on 'Coastal Resilience' (440 downloads)
4. Policy Brief No. 11 on 'Blue Carbon' (415 downloads)
5. Future Science Brief No. 10 on 'Ocean Oxygen' (214 downloads)

## EMB newsletter

At the end of 2024 the full stakeholder list contained 2,048 subscribers, of which 1,117 are subscribed to the Message to the Board, EMB's weekly newsletter providing updates on the EMB Secretariat activities, as well as other events, news and job postings. You can subscribe to the EMB newsletter via the EMB website: <https://www.marineboard.eu/emb-newsletter>

## YouTube

Where possible, all EMB events (i.e. Science webinars, Open Forum) are live-streamed and available for re-play on the EMB YouTube Channel, along with various other outputs. The EMB YouTube channel continued to grow significantly, totalling 674 subscribers, and the number of views tripled over the last year, with a total of 8,029 views as of December 2024. To increase the reach and make the channel more inclusive, the Secretariat is making English subtitles available for videos and will continue to do so. Follow EMB on YouTube:

<https://www.youtube.com/channel/UCcBGY9lckBVRijeW-0a1CsQ>.



## Social Media Channels

The European Marine Board is active on different social media platforms, which we use to announce and promote EMB activities, to highlight relevant news and events from the marine science and policy communities, but also to enhance Ocean literacy. The accounts are used to communicate with and instantly update the Member organisations, other networks and individual stakeholders

Twitter/X



10,700 followers

Instagram



1,452 followers

LinkedIn



1,886 followers

Facebook



1,100 followers

BlueSky



280 followers

## IMPACT FROM EMB PUBLICATIONS

The EMB Secretariat tracks the dissemination and impact of its documents for a period of at least two years after publication. The highlights are presented in a two-page infographic with easily accessible statistics. Below is an overview of the impact report that was published for the EMB publication on Marine Science Communication in 2024.



### **Marine Science Communication in Europe: A way forward**

Future Science Brief No. 8 on 'Marine Science Communication in Europe: A way forward' was published in June 2022. This Future Science Brief highlights the critical need to strengthen the marine science communication capacity in Europe, as well as develop dedicated training programs, engage in deeper and wider collaboration with stakeholders, and ensure and close interaction with the UN Decade of Ocean Science for Sustainable Development (2021-2030) and the EU Mission: Restore our Ocean and Waters by 2030.

This document has been developed by the European Marine Board Communications Panel (see p. 39) and is underpinned by surveys of 80 European experts, 1,861 students and 23 EMB Member organisations.

Full impact reports are available on the EMB website:  
<https://www.marineboard.eu/publications/impact-reports>.



# Finances

The EMB annual budget is based on Member organisation contributions and external contracts, e.g. EU framework projects. The Flemish Government of Belgium, through the Flanders Marine Institute (VLIZ), provides an in-kind contribution to the EMB through the provision of office space, running costs and equipment at the InnovOcean campus in Ostend, as well as the employment cost of one Secretariat staff member. Member organisations also provide in-kind contribution through support for participation of national experts in EMB activities, i.e. travel and subsistence to attend meetings.

## AVAILABLE FUNDS 2024

	EUR
Member Contributions	461,000
FP drawdown on employment costs Staff time & direct costs related to external projects	215,012
Other income	3,076
In-kind contribution from Flemish Government through the Flanders Marine Institute (VLIZ)	122,928
<b>Total available funds</b>	<b>802,016</b>

## EXPENDITURE 2024

	EUR
Secretariat Employment costs	306,292
Meetings, Travel & Ambassador Programme	56,000
Strategic events	0
Project costs (Staff time & direct costs)	174,756
Artist-in-residence Programme	20,026
Publications & dissemination	32,718
Running expenses and other costs	28,026
Costs covered by the Flanders Marine Institute (VLIZ)	122,928
<b>Total expenditure</b>	<b>740,746</b>

## RESERVE FUND

	EUR
Available funds 2024	802,016
Expenditure 2024	740,746
<b>Total 2024 balance</b>	<b>61,270</b>
2023 carry over	670,000
<b>Total</b>	<b>731,270</b>



# Annexes

# ANNEX 1:

## European Marine Board Member Organisations, Delegates and Alternates

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### BELGIUM

Belgian Science Policy Office (BELSPO)

*Koen Lefever*

*David Cox*

Fonds National de la Recherche Scientifique (FNRS)

National Fund for Scientific Research

*Marilaure Grégoire*

*Loïc Michel*

Fonds voor Wetenschappelijk Onderzoek - Vlaanderen (FWO)

The Research Foundation - Flanders

*Jan Mees*

*Ann-Katrien Lescrauwaet*

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### CROATIA

Institut za oceanografiju i ribarstvo (IZOR)

Institute of Oceanography and Fisheries

*Melita Peharda Uljevic*

*Daria Ezgeta-Balić*

Institut Ruđer Bošković (IRB)

Ruđer Bošković Institute

*Martin Andreas Pfannkuchen (Vice-Chair)*

*Ivica Vilibić*

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### CYPRUS

Cyprus Marine and Maritime Institute (CMMI)

*Zacharias Siokouros*

*Antri Theodorou*

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### DENMARK

Institut for Akvatiske Ressourcer (DTU Aqua)

National Institute for Aquatic Resources

*Patrizio Mariani*

*Kirsten Thomsen*

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### ESTONIA

Eesti Teaduste Akadeemia

Estonian Academy of Sciences

*Tarmo Soomere*

*Kalle Olli*

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### FRANCE

Centre National de la Recherche Scientifique (CNRS)

National Centre for Scientific Research

*Jean-Marie Flaud*

*Jean-François Doussin*

Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER)

French Research Institute for Exploitation of the Sea

*Gilles Lericolais (Chair until April 2024)*

*Gaëlle Moal*

Universités Marines

Marine Universities of France

*François Lallier (Vice-Chair)*

*Yves-Marie Paulet*

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### GERMANY

Konsortium Deutsche Meeresforschung (KDM)

German Marine Research Institute

*Jan-Stefan Fritz*

*Ralph Schneider*

Helmholtz-Zentrum für Ozeanforschung Kiel (GEOMAR)

Helmholtz Centre for Ocean Research Kiel

*Katja Matthes*

*Başak Kısakürek Ibsen*

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### GREECE

Ελληνικό Κέντρο Θαλάσσιων Ερευνών (HCMR)

Hellenic Centre for Marine Research

*Aris Karageorgis*

*George Petihakis*

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### IRELAND

Marine Institute

*Fiona Grant (Chair from April 2024)*

*Niall McDonough*

Irish Marine Universities Consortium

*Cathal O'Mahony*

*Anthony Grehan*

*Colin Brown*

---

### ITALY

Consiglio Nazionale delle Ricerche (CNR)

National Research Council

*Katrin Schroeder (Vice-Chair)*

*Andrea Miccoli*

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS)

National Institute of Oceanography and Applied

Geophysics

*Cosimo Solidoro*

*Mauro Celussi*

Consorzio Nazionale Interuniversitario per le  
Scienze del Mare (CoNISMa)  
National Inter-University Consortium for Marine  
Sciences  
*Salvatrice Vizzini*  
*Giorgio Budillon*

Stazione Zoologica Anton Dohrn (SZN)  
Anton Dohrn Marine Station  
*Chris Bowler*  
*Adriana Zingone*

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#### THE NETHERLANDS

Koninklijk Nederlands Instituut voor Onderzoek  
der Zee (NIOZ)  
Royal Netherlands Institute for Sea Research  
*Han Dolman*  
*Gert-Jan Reichart*

Deltares  
*Myra van der Meulen*  
*Sharon Tatman*

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#### NORWAY

Havforskningsinstituttet  
Institute of Marine Research (IMR)  
*Henning Wehde*  
*Amund Måge*

Norges forskningsrad  
The Research Council of Norway (RCN)  
*Kjersti T. Fjalestad*  
*Christian Wexels Riser*

Norsk Marint Universitetskonsortium  
Norwegian Marine University Consortium (NMU)  
*Nils Christian Stenseth*  
*Turid Lie Vilkenen*  
*Øyvind Fiksen*

NORCE Norwegian Research Centre (NORCE)  
*Trond Martin Dokken*  
*Lola Rodriguez Coronil*

SINTEF Ocean  
*Andy Booth*  
*Rachel Tiller*

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#### POLAND

Instytut Oceanologii Polskiej Akademii Nauk  
(IO PAN)  
Institute of Oceanology of the Polish Academy of  
Sciences  
*Sławomir Sagan (Vice-Chair)*  
*Monika Kedra*

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#### PORTUGAL

Centro de Investigação Marinha e Ambiental  
(CIMAR)  
Centre of Marine and Environmental Research  
*Joana Xavier*  
*Adelino Canario*

Fundação para a Ciência e a Tecnologia (FCT)  
Foundation for Science and Technology  
*Sofia Cordeiro*  
*Catarina Duarte*

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#### ROMANIA

Romanian Black Sea Research Consortium  
(RBRC)  
*Elena Stoica*

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#### SPAIN

Instituto Espanol de Oceanografia (IEO)  
Spanish Institute of Oceanography  
*Pablo Abaunza*  
*Marcos Llope*

Centro Tecnológico del Mar (CETMAR)  
Technological Center of the Sea  
*Rosa Fernández Otero (Vice-Chair)*  
*Carlos Pereira Dopazo*

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#### SWEDEN

Göteborgs universitet  
University of Gothenburg (UGOT)  
*Per Åberg*  
*Lena Gipperth*

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#### TÜRKİYE

Türkiye Bilimsel ve Teknik Arastirma Kurumu  
(TÜBİTAK)  
Scientific and Technological Research Council of  
Türkiye  
*Leyla Tolun*  
*Eren Özsu*

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#### UNITED KINGDOM

Marine Alliance for Science and Technology  
Scotland (MASTS)  
*Mark James*  
*David Paterson*

National Oceanography Centre (NOC)  
*John Siddorn*  
*Claire Evans*

Natural Environment Research Council (NERC)  
*Mike Webb*  
*Alan Evans (Vice-Chair)*

## ANNEX 2:

### Participants of EMB Plenary meetings 2024

#### Spring Plenary Meeting | 24-25 April 2024, Online

##### EMB DELEGATES

Representative	Member organisation	Country
Adriana Zingone	Anton Dohrn Marine Station (SZN)	Italy
Alan Evans	Natural Environment Research Council (NERC)	UK
Alexandra-Sophie Roy	German Marine Research Consortium (KDM)	Germany
Amund Mage	Institute of Marine Research (IMR)	Norway
Andrea Miccoli	National Research Council Italy (CNR)	Italy
Andy Booth	SINTEF Ocean (SINTEF)	Norway
Başak Kısakürek Ibsen	Helmholtz Centre for Ocean Research Kiel (GEOMAR)	Germany
Carlos Pereira Dopazo	Technological Centre of The Sea (CETMAR)	Spain
Cathal O'Mahony	Irish Marine Universities Consortium (IMUC)	Ireland
Claire Evans	National Oceanography Centre (NOC)	UK
Cosimo Solidoro	National Institute of Oceanography and Experimental Geophysics (OGS)	Italy
Dominique Simon	Marine Universities Consortium France (UM)	France
Elena Stoica	Romanian Black Sea Research Consortium (RBRC)	Romania
Eren Ozsu	Scientific and Technological Research Council of Turkey (TÜBİTAK)	Türkiye
Fiona Grant	Marine Institute (MI)	Ireland
François Lallier	Marine Universities Consortium France (UM)	France
Gert-Jan Reichart	Royal Netherlands Institute for Sea Research (NIOZ)	Netherlands
Gilles Lericolais	French Institute for the Exploitation of the Sea (IFREMER)	France
Jean-Marie Flaud	National Centre for Scientific Research (CNRS)	France
Joana Xavier	Centre of Marine and Environmental Research (CIMAR)	Portugal
Katrin Schroeder	National Research Council Italy (CNR)	Italy
Kjersti T. Fjalestad	The Research Council of Norway (RCN)	Norway
Koen Lefever	Belgian Science Policy Office (BELSPO)	Belgium
Lena Gipperth	University of Gothenburg (UGOT)	Sweden
Leyla Tolun	Scientific and Technological Research Council of Turkey (TÜBİTAK)	Türkiye
Lola Rodriguez	NORCE Norwegian Research Centre (NORCE)	Norway
Maria Carmen Garcia Martinez	Spanish Institute of Oceanography (IEO-CSIC)	Spain
Marcos Llope	Spanish Institute of Oceanography (IEO-CSIC)	Spain
Marilaure Gregoire	National Fund for Scientific Research (FNRS)	Belgium
Mark James	Marine Alliance for Science and Technology Scotland (MASTS)	UK
Melita Perharda Uljevic	Institute of Oceanography and Fisheries (IOF)	Croatia
Myra Van Der Meulen	DELTA RES	Netherlands
Nils C. Stenseth	Norwegian Marine University Consortium (NMU)	Norway
Øyvind Fiksen	Norwegian Marine University Consortium (NMU)	Norway
Patrizio Mariani	National Institute for Aquatic Resources (DTU AQUA)	Denmark
Per Aberg	University of Gothenburg (UGOT)	Sweden
Rosa Fernández Otero	Technological Centre of The Sea (CETMAR)	Spain
Salvatrice Vizzini	National Inter-University Consortium for Marine Sciences (CoNISMa)	Italy
Sławomir Sagan	Institute of Oceanology of The Polish Academy of Sciences (IO PAN)	Poland
Sofia Cordeiro	Science and Technology Foundation (FCT)	Portugal
Tarmo Soomere	Estonian Academy of Sciences (ETA)	Estonia



Representative	Member organisation	Country
<b>Turid Lie Vilken</b>	Norwegian Marine University Consortium (NMU)	Norway
<b>Yves-Marie Paulet</b>	Marine Universities Consortium France (UM)	France
<b>Zacharias Siokouros</b>	Cyprus Marine and Maritime Institute (CMMI)	Cyprus

#### OBSERVERS, SPEAKERS AND GUESTS

Representative	Organisation	Role
<b>Alexandra Hahn</b>	Helmholtz Centre for Ocean Research Kiel (GEOMAR, Germany)	EMB Young Ambassador
<b>Elise Guillaume</b>	EMB Artist-in-residence 2023-2024	EMB Artist-in-residence 2023-2024
<b>Georgios Sylaios</b>	Democritus University of Thrace	Speaker
<b>Laura Ciriminna</b>	University of Palermo	EMB Young Ambassador
<b>Nicholas Segebarth</b>	DG RTD	Speaker
<b>Pierre Bahurel</b>	Mercator Ocean International	Speaker
<b>Riwan Leroux</b>	French Institute for the Exploitation of the Sea (IFREMER, France)	EMB Young Ambassador
<b>Ruwanthi Gajadeera</b>	EMB Artist-in-residence 2023-2024	EMB Artist-in-residence 2023-2024
<b>Ute Brönn</b>	SINTEF Ocean (SINTEF)	Speaker
<b>Virginia Morejon</b>	University College Dublin (UCD)	EMB Young Ambassador
<b>Yekaterina Astafyeva</b>	JPI Oceans	Observer
<b>Zoi Konstantinou</b>	DG MARE	Observer

## Autumn Plenary Meeting | 1-2 October 2024, Rhodes, Greece and Online

### EMB DELEGATES

Representative	Member organisation	Country
Adriana Zingone	Anton Dohrn Marine Station (SZN)	Italy
Alan Evans	Natural Environment Research Council (NERC)	UK
Alexandra-Sophie Roy	German Marine Research Consortium (KDM)	Germany
Andrea Miccoli	National Research Council Italy (CNR)	Italy
Aris Karagiorgis	Hellenic Centre for Marine Research (HCMR)	Greece
Başak Kısakürek Ibsen	Helmholtz Centre for Ocean Research Kiel (GEOMAR)	Germany
Catarina Duarte	Science and Technology Foundation (FCT)	Portugal
Cathal O'Mahony	Irish Marine Universities Consortium (IMUC)	Ireland
Cosimo Solidoro	National Institute of Oceanography and Experimental Geophysics (OGS)	Italy
Dominique Simon	Marine Universities Consortium France (UM)	France
Elena Stoica	Romanian Black Sea Research Consortium (RBRC)	Romania
Eren Ozsu	Scientific and Technological Research Council of Turkey (TÜBİTAK)	Türkiye
Fiona Grant	Marine Institute (MI)	Ireland
François Lallier	Marine Universities Consortium France (UM)	France
George Petihakis	Hellenic Centre for Marine Research (HCMR)	Greece
Gert-Jan Reichart	Royal Netherlands Institute for Sea Research (NIOZ)	Netherlands
Gilles Lericolais	French Institute for the Exploitation of the Sea (IFREMER)	France
Henning Wehde	Institute of Marine Research (IMR)	Norway
Ivica Vilibić	Ruđer Bošković Institute (IRB)	Croatia
Jan Mees	Research Foundation Flanders (FWO)	Belgium
Jean-Marie Flaud	National Centre for Scientific Research (CNRS)	France
Joana Xavier	Centre of Marine and Environmental Research (CIMAR)	Portugal
John Siddorn	National Oceanography Centre (NOC)	UK
Kjersti T. Fjalestad	The Research Council of Norway (RCN)	Norway
Koen Lefever	Belgian Science Policy Office (BELSPO)	Belgium
Leyla Tolun	Scientific and Technological Research Council of Turkey (TÜBİTAK)	Türkiye
Lola Rodriguez	NORCE Norwegian Research Centre (NORCE)	Norway
Marilaure Gregoire	National Fund for Scientific Research (FNRS)	Belgium
Melita Perharda Uljevic	Institute of Oceanography and Fisheries (IOF)	Croatia
Myra Van Der Meulen	DELTARES	Netherlands
Nils C. Stenseth	Norwegian Marine University Consortium (NMU)	Norway
Pablo Abaunza	Spanish Institute of Oceanography (IEO-CSIC)	Spain
Patrizio Mariani	National Institute for Aquatic Resources (DTU AQUA)	Denmark
Per Aberg	University of Gothenburg (UGOT)	Sweden
Rosa Fernández Otero	Technological Centre of The Sea (CETMAR)	Spain
Salvatrice Vizzini	National Inter-University Consortium for Marine Sciences (CoNISMa)	Italy
Śławomir Sagan	Institute of Oceanology of The Polish Academy of Sciences (IO PAN)	Poland
Sofia Cordeiro	Science and Technology Foundation (FCT)	Portugal
Tarmo Soomere	Estonian Academy of Sciences (ETA)	Estonia
Turid Lie Vilkenzen	Norwegian Marine University Consortium (NMU)	Norway
Zacharias Siokouros	Cyprus Marine and Maritime Institute (CMMI)	Cyprus

OBSERVERS, SPEAKERS AND GUESTS

Representative	Organisation	Role
Riwan Leroux	French Institute for the Exploitation of the Sea (IFREMER, France)	EMB Young Ambassador
Laura Ciriminna	University of Palermo (Italy)	EMB Young Ambassador
Tymon Zieliński	Institute of Oceanology of The Polish Academy of Sciences (IO PAN, Poland)	Chair of EMBCP
Thorsten Kiefer	JPI Oceans	Observer
Zoi Konstantinou	DG MARE	Observer
Antonio Guarnieri	DG MARE	Observer

## ANNEX 3:

### WORKING GROUP MEMBERS 2024

#### Working Group Navigating the Future VI

##### Working Group Members:

- Gilles Lericolais, EMB Chair and French Research Institute for the Exploration of the Sea (IFREMER), France – WG Chair
- Sheila Heymans, Executive Director, European Marine Board – WG Co-Chair
- Francesco Marcello Falcieri, National Research Council Italy (CNR), Italy
- Juliette Biquet, Centre for Marine Sciences of the Algarve, Portugal, and EMB Young Ambassador
- Nicola Beaumont, Plymouth Marine Laboratory, UK (UK Natural Environment Research Council)
- Silja Klepp, Kiel University, Germany (German Marine Research Consortium)
- Lucía López-López, Spanish Institute of Oceanography (IEO-CSIC), Spain
- David Lusseau, Technical University of Denmark, Denmark
- Ekaterina Popova, National Oceanography Centre (NOC), UK
- Baris Salihoglu, Middle Eastern Technical University, Türkiye (Scientific and Technological Research Council of Türkiye)
- Olivier Thébaud, French Research Institute for Exploitation of the Sea (IFREMER), France
- Katrin Schroeder, National Research Council Italy (CNR), Italy
- Fiona Grant, Marine Institute (MI), Ireland
- Joke Lübbecke, Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany
- Ruth Plets, Flanders Marine Institute (VLIZ), Belgium (Research Foundation - Flanders)
- Jean-Baptiste Sallée, National Centre for Scientific Research (CNRS), France
- Tarmo Soomere, Tartu Technical University, Estonia (Estonian Academy of Sciences)
- Nuria Teixido, Anton Dohrn Marine Station (SZN), Italy
- Ivica Vilibić, Ruđer Bošković Institute (IRB), Croatia
- Renske de Winter, Deltares, Netherlands
- Peter Kraal, Royal Netherlands Institute for Sea Research (NIOZ), Netherlands
- Tainá Fonseca, University of Algarve, Portugal (Portuguese Science and Technology Foundation)
- Christine Edwards, Robert Gordon University, UK (MASTS, UK)
- Joao Frias, Atlantic Technological University, Ireland (Irish Marine Universities Consortium)
- Slavica Matijević, Institute of Oceanography and Fisheries (IOF), Croatia
- Cosimo Solidoro, National Institute of Oceanography and Experimental Geophysics (OGS), Italy
- Beata Szymczycha, Institute of Oceanology of the Polish Academy of Sciences (IO PAN), Poland
- Carlos Pereira Dopazo, University of Santiago de Compostela, Spain (Galician Marine Technology Centre)
- Kerstin Johannesson, University of Gothenburg (UGOT), Sweden
- Julia Calderwood, Marine Institute (MI), Ireland
- Antonia Giannakourou, Hellenic Centre for Marine Research (HCMR), Greece
- Enrique Blanco Gonzalez, University of Agder, Norway (Norwegian Marine University Consortium)
- Christophe Lejeusne, University of Aix-Marseille, France (Marine Universities of France)
- Loïc Michel, University of Liège, Belgium (Walloon Fund for Scientific Research)
- Geir Ottersen, Institute of Marine Research (IMR), Norway

##### EMB Secretariat Support:

Paula Kellett

#### Working Group Marine Habitat Mapping

##### Working Group Members:

- Simonetta Fraschetti, University of Naples Federico II and Anton Dohrn Marine Station (SZN), Italy – WG Chair
- James Strong, National Oceanography Centre (NOC), UK – WG Co-Chair
- Eimear O’Keeffe, Marine Institute (MI), Ireland
- Maria Salomidi, Hellenic Centre for Marine Research (HCMR), Greece
- Timm Schoening, Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany
- Federica Fogliini, Institute of Marine Science (CNR-ISMAR), Italy



- Helen Lillis, Joint Nature Conservation Committee (JNCC), UK
- Jorge Goncalves, Centre of Marine Sciences of the Algarve (CCMAR), Portugal
- Georg Martin, Estonian Marine Institute, University of Tartu, Estonia
- Mats Lindegarth, University of Gothenburg (UGOT), Sweden
- Lene Buhl Mortensen, Institute of Marine Research (IMR), Norway
- Lenaick Menot, French Research Institute for the Exploration of the Sea (IFREMER), France
- José Manuel González-Irusta, Spanish Institute of Oceanography (IEO-CSIC), Spain
- António Pascoal, Instituto Superior Técnico (IST), Portugal

**EMB Secretariat Support:**

Britt Alexander

## Working Group Deep Sea and Ocean Health

**Working Group Members:**

- Sylvia Sander, Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany – WG Chair
- Christian Tamburini, Mediterranean Institute of Oceanography (MIO), France – WG Co-Chair
- Roberto Danovaro, Anton Dohrn Marine Station (SZN), Italy
- Sabine Gollner, Royal Netherlands Institute for Sea Research (NIOZ), The Netherlands
- Bleuenn Guilloux, University of La Rochelle, France
- Henk-Jan Hoving, Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany
- Igor Isajlović, Institute of Oceanography and Fisheries (IOF), Croatia
- Bhavani Narayanaswamy, Marine Alliance for Science and Technology Scotland (MASTS), UK
- Ellen Pape, University of Ghent, Belgium
- Marzia Rovere, Institute of Marine Science (CNR-ISMAR), Italy
- Miguel Semedo, Centre of Marine and Environmental Research (CIMAR), Portugal
- Pedro Vélez Belchí, Spanish Institute of Oceanography (IEO-CSIC), Spain
- Riwan Leroux, Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER), France & EMB Young Ambassador

**EMB Secretariat Support:**

Ángel Muñoz Piniella

## Working Group Marine Carbon Dioxide Removal

**Working Group Members:**

- Helene Muri, Research Professor, Norwegian University of Science and Technology (NTNU), Norway – WG Chair
- Olivier Sulpis, CEREGE - Aix-Marseille University, CNRS, IRD, France – WG Co-Chair
- Gabriela Argüello, University of Gothenburg, Sweden
- Chelsey Baker, National Oceanography Centre (NOC), UK
- Miranda Böttcher, Utrecht University & German Institute for International and Security Affairs (SWP), The Netherlands & Germany
- Maribel I. García-Ibáñez, Spanish Institute of Oceanography (IEO-CSIC), Spain
- Karol Kuliński, Institute of Oceanology Polish Academy of Sciences (IO PAN), Poland
- Angela Landolfi, Institute of Marine Sciences (CNR-ISMAR), Italy
- Peter Landschützer, Flanders Marine Institute (VLIZ), Belgium
- Evin McGovern, Marine Institute, Ireland
- Živana Ninčević Gladan, Institute of Oceanography and Fisheries (IOF), Croatia
- Andreas Oschlies, Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany
- Elias Yfantis, University of Nicosia, Cyprus

**EMB Secretariat Support:**

Ángel Muñoz Piniella

## ANNEX 4:

### Panel Members 2024

#### European Marine Board Communication Panel (EMBCP)

##### Panel Members:

- Tymon Zieliński, Institute of Oceanology of The Polish Academy of Sciences (IO PAN), Poland - Chair
- Jess Allen, National Oceanography Centre (NOC), United Kingdom
- Sheila Byrnes, Marine Institute (MI), Ireland
- Sverre Ole Drønen - Norwegian Marine University Consortium (NMUC), Norway
- Daria Ezgeta Balic, Institute of Oceanography and Fisheries (IOF), Croatia
- Francesca Garaventa, National Research Council Italy, Institute of Marine Research (IAS, CNR), Italy
- Marie Ghalanos, Cyprus Marine & Maritime Institute (CMMI), Cyprus
- Claudia Gili, Anton Dohrn Marine Station (SZN), Italy
- Géraldine Guillevic - Institut Français de Recherche pour l'Exploitation de la Mer (Ifremer), France
- Kathrin Kopke, University College Cork (UCC), Ireland
- Pablo Lozano - Spanish Institute of Oceanography (IEO-CSIC), Spain
- Anna Niewerth - Helmholtz Centre for Ocean Research Kiel (GEOMAR), Germany
- Ana Mena - Centre of Marine and Environmental Research (CIIMAR), Portugal
- Kelle Moreau, Royal Belgian Institute of Natural Sciences (RBINS), Belgium
- Mette Mila, The Research Council of Norway (RCN), Norway
- Francesca Petrera, National Institute of Oceanography and Experimental Geophysics (OGS), Italy
- Kim Sauter, Royal Netherlands Institute for Sea Research (NIOZ), The Netherlands
- Ezgi Sahin Yucel, Institute of Marine Sciences, Middle East Technical University (METU), Türkiye
- Jan Seys, Flanders Marine Institute (VLIZ), Belgium
- Dominique Simon, Marine Universities Consortium France (UM), France

##### EMB Secretariat Support:

Ángel Muñoz Piniella

## ANNEX 5:

### MEETINGS AND EVENTS (JOINTLY) ORGANISED IN 2024

Date	Event and Venue
10/1/2024	CommOcean 2024 Committee Meeting, Online
11/1/2024	EOOS AC Meeting with Adeline Souf (SHOM), Online
18/01/2024	Third Thursday Science Webinar: Data science for offshore renewable energies: data availability and requirements for metocean analysis, Online
31/01/2024	Ecopath40 Conference Meeting with European Commission, Online
1/2/2024	EMB Working Group NFVI Ocean and Climate Chapter Meeting, Online
2/2/2024	EMB Working Group Deep Sea and Ocean Health Meeting, Online
5/2/2024	Ecopath40 Conference Meeting on VLIZ Travel Grants, Online
7/2/2024	ECOP Wednesdays webinar: Mitigization of the deep-sea mining policy process in Norway, Online
14/02/2024	Ocean Decade Conference Satellite Event Meeting: EDITO4ECOPS, Online
15/02/2024	Third Thursday Science Webinar: Blue Carbon and Nationally Determined Contributions: financing blue natural capital as Nature-based Solutions, Online
20/02/2024	EMBracing the Ocean Committee Meeting, Online
23/02/2024	ExCom Meeting, Ostend, Belgium and Online
26/02/2024	Meeting with VLIZ on Marine Science Day, Ostend, Belgium
27/02/2024	Ecopath40 Committee Meeting, Online
28/02/2024	Ocean Decade Conference Satellite Event Meeting: EDITO4ECOPS, Online
1/3/2024	EMB Young Ambassador Meeting, Online
6/3/2024	VLIZ Marine Science Day, Ostend, Belgium
7/3/2024	CommOcean 2024 organising committee Meeting, Online
13/03/2024	ECOP Wednesdays webinar: DTOECOPS Warm-Up: Shaping early careers' perspectives of Digital Twins of the Ocean, Online
15/03/2024	Marine Habitat Mapping Launch Event Meeting with DG Environment, Online
19-21/03/2024	EMBracing the Ocean Artist interviews, Online
21/03/2024	EMBCP Spring 2024 Meeting, Online
26/03/2024	Ecopath40 Committee Meeting, Online
3/4/2024	ECOP Wednesdays: Ocean literacy, Online
4/4/2024	Briefing meeting for Ocean Decade Conference Side Event, Online
4/4/2024	Meeting with IOC-UNESCO Communications on CommOCEAN 2024, Online
11/04/2024	Ocean Decade Conference Side Event "Supporting a global collective vision for ocean science by matching regional priorities", Barcelona, Spain
18-19/04/2024	EMB WG Deep Sea and Ocean Health meeting, Brussels, Belgium and Online
18/04/2024	EMB Third Thursday Science Webinar: Interdisciplinary working, Online
23/04/2024	EMB Ambassadors Plenary briefing meeting, Online, Online
23/04/2024	EMB ExCom meeting, Online
24-25/04/2024	EMB Spring Plenary meeting, Online
29/04/2024	Ecopath40 Conference committee meeting, Online

Date	Event and Venue
2/5/2024	ECOP Wednesdays: Engaging ECOPs, Online
08/05/2024	EMB and MASTS Meeting, Online
15/05/2024	SURIMI online kick-off part I, Online
15/05/2024	EMBracing the Ocean New Artists Orientation meeting, Online
16/05/2024	Third Thursday Science Webinar: Outgoing Artists, Online
21/05/2024	Ecopath40 Conference Committee meeting, Online
22/05/2024	WGCOMEDA meeting, Online
24/05/2024	SURIMI online kick off part II, Online
28/05/2024	EMB Young Ambassador Meeting, Online
03-07/06/2024	Ecopath40 Conference, Ostend, Belgium
5/6/2024	ECOP Wednesdays: Modelling of Fish Invasions, Online
12/6/2024	Brown Bag Lunch Preparation call with DG Environment, Online
17/06/2024	Brown Bag Lunch: Launch of Marine Habitat Mapping, Brussels, Belgium
03-04/07/2024	EMB Ambassador Workshop, Ostend, Belgium
8/7/2024	EOOS Steering Group – DG MARE meeting, Online
12/7/2024	Discussion with DG ENV on biodiversity indicators for EcoScope, Online
18/07/2024	Third Thursday Science Webinar: Marine plastic pollution, Online
24/07/2024	Meeting between EMB and EuroMarine, Online
7/8/2024	ECOP Wednesdays: Marine environmental policies, Online
16/08/2024	EU4Ocean meeting with Méline Martins (CCMAR), Online
21/08/2024	EMB Secretariat meeting with Zoi Konstantinou (DG MARE), Online
29-30/08/2024	Marine Carbon Dioxide Removal Working Group Kick-off Meeting, Ostend, Belgium
4/9/2024	ECOP Wednesdays: Antarctica, Online
10/9/2024	EMB Ambassador Meeting, Online
19/09/2024	Third Thursday Science Webinar: ORE Skills Intelligence, Online
1/10/2024	EMB ExCom meeting, Rhodes, Greece and Online
1-2/10/2024	EMB Autumn Plenary Meeting, Rhodes, Greece and Online
11/10/2024	Marine Carbon Dioxide Removal Working Group Meeting, Online
17/10/2024	EOOS Advisory Committee Meeting, Online
23/10/2024	Navigating the Future VI Launch Event, Brussels, Belgium
6/11/2024	ECOP Wednesday: Earth Observations for Ocean Observations in Trinidad and Tobago, Online
12/11/2024	EMB Ambassador Meeting, Online
14/11/2024	Call with ECOP Netherlands node, Online
21/11/2024	Third Thursday Science Webinar: Deep-sea biology, Online
22/11/2024	Marine Carbon Dioxide Removal Working Group Meeting, Online



Date	Event and Venue
26-27/11/2024	CommOCEAN 2024 Conference, Malaga, Spain
28/11/2024	EMBCP meeting, Malaga, Spain
4/12/2024	ECOP Wednesday: The Collective Path Towards IPOS - the Role of Youth and Early Career Practitioners, Online
6/12/2024	EMBracing the Ocean Committee Meeting, Online
19/12/2024	Third Thursday Science Webinar: Modelling for Marine Habitat Mapping, Online
6/12/2024	EMBracing the Ocean Committee Meeting
19/12/2024	Third Thursday Science Webinar: Modelling for Marine Habitat Mapping

## ANNEX 6:

### PRESENTATIONS AT MEETINGS BY THE EMB SECRETARIAT AND EXCOM IN 2024

Date	Event and Venue	Speaker(s)
19/01/2024	Blue Book Trainee Job Fair, Brussels, Belgium	Ángel Muñiz Piniella, Britt Alexander
18-19/01/2024	BAMBOO Kick-off Meeting, The Hague, Netherlands and Online	Paula Kellett
21/02/2024	Ocean governance and how science can contribute, Brussels, Belgium	Sheila Heymans
29/02/2024	Ocean Justice SIG Panel, Online	Sheila Heymans
22/04/2024	Expert Research Panel on Biological Carbon Pump, Online	Sheila Heymans
15/05/2024	HELCOM Informal Consultation Workshop on benthic habitat mapping, Online	Britt Alexander
22/05/2024	Green Meets Blue OHH event, Ostend, Belgium	Paula Kellett
29-31/05/2024	Histoire et Sciences de la Mer, Vincennes, France	Francois Lallier
11/6/2024	JPI Oceans Strategic Navigation Forum, Brussels, Belgium	Sheila Heymans
18/06/2024	Green Energy Ports Conference, Vigo, Spain	Sheila Heymans
19/06/2024	ECRs SponBIODIV Project Workshop, Online	Britt Alexander
20/06/2024	HIFMB Talk: How does being an ecosystem modeler help you to work at a science policy think tank, Oldenburg, Germany	Sheila Heymans
20/06/2024	EU Trainees Job Fair, Brussels, Belgium	Fernanda Bayo Ruiz
12/9/2024	SAMS Graduation, Oban, Scotland	Sheila Heymans
19/09/2024	Project 19 South African Edition, Online	Sheila Heymans
20/09/2024	InnovOcean Seminar, Ostend, Belgium	Paula Kellett
27/09/2024	CNR Staff Retreat, Online	Fiona Grant
11/10/2024	VLIZ Oceans and Human Health Symposium, Ostend, Belgium	Paula Kellett
16-18/10/2024	NiD4Ocean Project Kick-Off Meeting, Oslo, Norway and Online	Paula Kellett
16/10/2024	Architectural Forum, Online	Sheila Heymans
22-24/10/2024	European MSP Week, Marseille, France	Sheila Heymans
8/11/2024	InnovOcean Semina, Ostend, Belgium	Paula Kellett
20/11/2024	Visit from ISMER-UQAR, Quebec, Ostend, Belgium	Sheila Heymans
20/11/2024	MASTS Board meeting, Online	Sheila Heymans
26/11/2024	Heavy minerals Masters course Public Panel Discussion - Ways to take action for global change: how can we influence policy, Online	Paula Kellett

## ANNEX 7:

### EMB MEMBER CONTRIBUTIONS 2024

Marine Board Member	Country	Contribution 2024
Research Foundation - Flanders (FWO)	Belgium	€ 12,000
National Fund for Scientific Research (FNRS)	Belgium	€ 12,000
Belgian Science Policy Office (BELSPO)	Belgium	€ 12,000
Institute of Oceanography and Fisheries (IOF)	Croatia	€ 3,000
Ruđer Bošković Institute (IRB)	Croatia	€ 3,000
Cyprus Marine and Maritime Institute (CMMI)	Cyprus	€ 3,000
National Institute for Aquatic Resources (DTU AQUA)	Denmark	€ 12,000
Estonian Academy of Sciences (ETA)	Estonia	€ 8,000
French Institute for the Exploitation of the Sea (IFREMER)	France	€ 17,000
Marine Universities Consortium France (UM)	France	€ 17,000
National Centre for Scientific Research (CNRS)	France	€ 17,000
German Marine Research Consortium (KDM)	Germany	€ 17,000
Helmholtz Centre for Ocean Research Kiel (GEOMAR)	Germany	€ 17,000
Hellenic Centre for Marine Research (HCMR)	Greece	€ 8,000
Marine Institute (MI)	Ireland	€ 12,000
Irish Marine Universities Consortium (IMUC)	Ireland	€ 12,000
National Inter-University Consortium for Marine Sciences (CoNISMa)	Italy	€ 17,000
National Research Council Italy (CNR)	Italy	€ 17,000
Anton Dohrn Marine Station (SZN)	Italy	€ 17,000
National Institute of Oceanography and Experimental Geophysics (OGS)	Italy	€ 17,000
Royal Netherlands Institute for Sea Research (NIOZ)	Netherlands	€ 12,000
DELTA RES	Netherlands	€ 12,000
Norwegian Marine University Consortium (NMU)	Norway	€ 12,000
The Research Council of Norway (RCN)	Norway	€ 12,000
Institute of Marine Research (IMR) <sup>1</sup>	Norway	€ 12,000
SINTEF Ocean (SINTEF)	Norway	€ 12,000
NORCE Norwegian Research Centre (NORCE)	Norway	€ 12,000
Institute of Oceanology of The Polish Academy of Sciences (IO PAN)	Poland	€ 8,000
Science and Technology Foundation (FCT)	Portugal	€ 8,000
Centre of Marine and Environmental Research (CIMAR)	Portugal	€ 8,000
Romanian Black Sea Research Consortium (RBRC)	Romania	€ 8,000
Spanish Institute of Oceanography (IEO-CSIC)	Spain	€ 12,000
Technological Centre of The Sea (CETMAR)	Spain	€ 12,000
University of Gothenburg (UGOT)	Sweden	€ 12,000
Scientific and Technological Research Council of Türkiye (TÜBİTAK)	Türkiye	€ 8,000
Marine Alliance for Science and Technology Scotland (MASTS)	UK	€ 17,000
Natural Environment Research Council (NERC)	UK	€ 17,000
National Oceanography Centre (NOC) <sup>2</sup>	UK	€ 17,000
<b>Total</b>	<b>38</b>	<b>€ 461,000</b>

<sup>1</sup> Paid by Research Council of Norway (RCN)

<sup>2</sup> Paid by Natural Environment Research Council (NERC)

## ANNEX 8:

### Full list of EMB publications

#### EMB PUBLICATIONS IN 2024:

- Frascchetti, S., Strong, J., Buhl-Mortensen, L., Foglini, F., Gonçalves, J. M. S., González-Irusta, J. M., Lillis, H., Lindegarth, M., Martin, G., Menot, L., O'Keeffe, E., Pascoal, A., Salomidi, M., Schoening, T. (2024) **Marine habitat mapping**. Alexander, B., Rodriguez Perez, A., Kellett, P., Muñoz Piniella, A., Bayo Ruiz, F., Bairaktari, K., Heymans, J. J. [Eds.] Future Science Brief 11 of the European Marine Board, Ostend, Belgium. ISSN: 25593-5232. ISBN: 9789464206234. DOI: 10.5281/zenodo.11203128
- European Marine Board (2024) **Navigating the Future VI: Placing the Ocean within the wider Earth system**. Position Paper 28 of the European Marine Board, Ostend, Belgium. 116pp. ISSN: 0167-9309 ISBN: 9789464206265 DOI: 10.5281/zenodo.13329469
- European Marine Board (2024). **Requirements for Coastal Resilience in Europe**. EMB Policy Brief 12, December 2024. ISSN: 0778-3590 ISBN: 9789464206296 DOI: 10.5281/zenodo.14246329
- Bayo Ruiz, F., Muñoz Piniella, Á., Alexander, B., Kellett, P., Rodriguez Pérez, A., Heymans, J. J (Eds.). 2024. EurOCEAN 2023 conference report and Vigo Declaration. EurOCEAN 2023 - **Europe's marine science contribution to a sustainable future**. Vigo, Galicia, Spain, 10-11 October 2023. ISBN: 9789464206302 DOI: 10.5281/zenodo.14230062
- Heymans, J. J., Van Elslander, J., Kellett, P., Muñoz Piniella, A., Alexander, B., Rodriguez Perez, A. **European Marine Board Annual Report 2023**. European Marine Board, Ostend, Belgium. 2024. ISSN 2565-7402. 76pp
- Heymans, J. J. & Kellett, P. (2024) **Science-policy collaboration for green transition. (2024) Baltic Rim Economies, 4**. [https://www.centrumbalticum.org/files/6442/BRE\\_3\\_2024.pdf](https://www.centrumbalticum.org/files/6442/BRE_3_2024.pdf)

#### PAPERS PUBLISHED FROM PROJECTS IN 2024:

- Bentley, J.W., D. Chagaris, M. Coll, J.J. Heymans, N. Serpetti, C.J. Walters, and V. Christensen. (2024) **Calibrating Ecosystem Models to Support Ecosystem-Based Management of Marine Systems**. *ICES Journal of Marine Science* 81, no. 2 (2024): 260-75. DOI: 10.1093/icesjms/fsad213
- De Luca Peña, L. V., Dewulf, J., Staes, J., Moulart, I., Vandamme, S., Heymans, J. J., Taelman, S. E. (2024) **Assessing the sustainability of Blue Economy activities using an ecosystem and life cycle-based approach: Possibilities, challenges and implications for an informed policy making**. *Ocean and Coastal Management*, 257. DOI: 10.1016/j.ocecoaman.2024.107360
- Fleming, L.E., P.J. Landrigan, O.S. Ashford, E.M. Whitman, A. Swift, W.H. Gerwick, J.J. Heymans, et al. (2024) **Enhancing Human Health and Wellbeing through Sustainably and Equitably Unlocking a Healthy Ocean's Potential**. *Annals of Global Health* 90, no. 1: 41. DOI: 10.5334/aogh.4471
- Pint, S., M. Stevens, R. Musimwa, W. Standaert, M. De Troch, D. van Oevelen, J.J. Heymans, and G. Everaert. (2024) **A Food Web Model of the Southern Bight of the North Sea**. *Ocean & Coastal Management* 255: 107256. DOI: 10.1016/j.ocecoaman.2024.107256
- Tanhua, T., Le Traon, P.-Y., Köstner, N., Eparkhina, D., Navarro, G., Dunbar, M. B., Speich, S., Pascual, A., von Schuckmann, K., Liguori, G., Karstensen, J., Hassoun, A. E. R., van Doorn, E., Barceló-Llull, B., Gómez, B. P., Cusack, C., Heslop, E., Lara-Lopez, A., Petihakis, G., Telszewski, M., Palacz, A. P., Wilmer-Becker, K., Pearlman, J., Piniella, Á.M., Heymans, J. J., Lips, I. (2024) **Towards a Sustained and Fit-for-Purpose European Ocean Observing and Forecasting System**. *Frontiers in Marine Science*, 11. DOI:10.3389/fmars.2024.1394549



## POSITION PAPERS:

- **European Marine Board (2024) Navigating the Future VI: Placing the Ocean within the wider Earth system.** Position Paper 28 of the European Marine Board, Ostend, Belgium. 116pp. ISSN: 0167-9309 ISBN: 9789464206265 DOI: 10.5281/zenodo.13329469  
Coordinating authors: Gilles Lericolais, Sheila Heymans, Francesco Marcello Falcieri, Juliette Aminian Biquet, Katrin Schroeder, Peter Kraal, Tainá Fonseca, Carlos Pereira Dopazo; Contributing authors: Nicola Beaumont, Enrique Blanco Gonzalez, Julia Calderwood, João Frias, Antonia Giannakourou, Fiona Grant, Kerstin Johannesson, Silja Klepp, Christophe Lejeune, Lucía López-López, Joke Lübbecke, David Lusseau, Slavica Matijević, Loïc Michel, Geir Ottersen, Ruth Plets, Ekaterina Popova, Baris Salihoglu, Jean-Baptiste Sallée, Cosimo Solidoro, Beata Szymczycha, Nuria Teixedo, Olivier Thébaud, Ivica Vilibić, Renske de Winter.
- Villasante, S., Richter, K., Bailey, J. L., Bleckner, T., Farrell, E. J., Mongruel, R. C., Timmermann, K., Bouma, T. J., Melaku Canu, D., Chen, M., Lachs, L., Payo, A., & Sousa Pinto, I. (2023). **Building Coastal Resilience in Europe.** Alexander, B., Muñoz Piniella, A., Kellett, P., Rodriguez Perez, A., Van Elslander, J., Bayo Ruiz, F., Heymans, J. J. [Eds.] Position Paper N° 27 of the European Marine Board, Ostend, Belgium. 126pp. ISSN: 0167-9309. ISBN: 9789464206197. DOI: 10.5281/zenodo.8224055  
Coordinating authors: Sebastian Villasante, Kristin Richter; Contributing authors: Jennifer L. Bailey, Thorsten Blenckner, Eugene J. Farrell, Remi C. Mongruel, Karen Timmermann, Tjeerd J. Bouma, Donata Melaku Canu, Margaret Chen, Liam Lachs, Andres Payo, Isabel Sousa Pinto
- Kopp, H., Chiocci, F. L., Berndt, C., Çağatay, M. N., Ferreira, T., Fortes, C. J. E. M., Gràcia, E., González Vega, A., Kopf, A. J., Sørensen, M. B., Sultan, N., Yeo, I. A. (2021) **Marine geohazards: Safeguarding society and the Blue Economy from a hidden threat.** Muñoz Piniella, A., Kellett, P., van den Brand, R., Alexander, B., Rodríguez Perez, A., Van Elslander, J., Heymans, J. J., [Eds.] Position Paper 26 of the European Marine Board, Ostend, Belgium. 100 pages. ISSN: 2593-5232. ISBN: 9789464206111 DOI: 10.5281/zenodo.5591938  
Coordinating authors: Heidrunn Kopp, Francesco Chiocci; Contributing authors: Christian Berndt, Namik Çağatay, Teresa Ferreira, Juana Fortes, Eulàlia Gràcia, Achim Kopf, Mathilde Sørensen, Nabil Sultan, Isobel Yeo.
- Nieuwejaar, P. *et al.* (2019) **Next Generation European Research Vessels: Current Status and Foreseeable Evolution.** Heymans, J.J., Kellett, P., Viegas, C., Alexander, B., Coopman, J., Muñoz Piniella, Á. [Eds.] Position Paper 25 of the European Marine Board, Ostend, Belgium. 140pp. ISBN: 978-94-92043-79-5 DOI: 10.5281/zenodo.347789  
Coordinating author: Per Nieuwejaar; Contributing authors: Valerie Mazauric, Christian Betzler, Mafalda Carapuco, Andre Cattrijsse, Franco Coren, Juanjo Danobeitia, Colin Day, Aodhan Fitzgerald, Stefan Florescu, Jose Ignacio Diaz, Michael Klages, Erica Koning, Olivier Lefort, Giuseppe Magnifico, Oystein Mikelborg, Lieven Naudts.
- European Marine Board (2019) **Navigating the Future V: Marine Science for a Sustainable Future.** Position Paper 24 of the European Marine Board, Ostend, Belgium. ISBN: 9789492043757. ISSN: 0167-9309. DOI: 10.5281/zenodo.2809392  
Coordinating authors: Ferdinando Boero, Valerie Cummins, Jeremy Gault, Geir Huse, Catharina J.M. Philippart, Ralph Schneider, Anne Marie Treguier; Contributing authors: Sukru Besiktepe, Gilles Boeuf, Marta Coll, Carlos Garcia-Soto, Kevin Horsburgh, Heidrun Kopp, Francesca Malfatti, Patrizio Mariani, Nele Matz-Luck, Jan Mees, Luis Menezes Pinheiro, Denis Lacroix, Martin Le Tissier, David M. Paterson, Gerald Schernewski, Olivier Thebaud, Michiel B. Vandegehuchte, Sebastian Villasante, Martin Visbeck, Jan Marcin Węślawski.
- Garcia-Soto, C., *et al.* (2017) **Advancing Citizen Science for Coastal and Ocean Research.** French, V., Kellett, P., Delany, J., McDonough, N. [Eds.] Position Paper 23 of the European Marine Board, Ostend, Belgium. 112pp. ISBN: 978-94-92043-30-6  
Coordinating Author: Carlos Garcia Soto; Contributing Authors: Gro Van Der Meeren, Julia A. Busch, Jane Delany, Christine Domegan, Karin Dubsky, Géraldine Fauville, Gabriel Gorsky, Karen von Juterzenka, Francesca Malfatti, Gérald Mannaerts, Patricia McHugh, Pascal Monestiez, Jan Seys, Jan Marcin Węślawski, Oliver Zielinski.
- Rogers A.D. *et al.* (2015) **Delving Deeper: Critical challenges for 21<sup>st</sup> century deep-sea research.** European Marine Board Position Paper 22. Larkin, KE, Donaldson K, McDonough, N (Eds). European Marine Board, Ostend, Belgium, 2014.  
Coordinating author: Alex D. Rogers; Contributing authors: Andy Brierley, Peter Croot, Marina Cunha, Roberto Danovaro, Colin Devey, Alf Haakon Hoel, Henry Ruhl, Pierre-Marie Sarradin, Seline Trevisnaut, Helena Viera, Martin Visbeck.

- Flemming N.C. *et al.* (2014) **Land beneath the waves: State of the art, key opportunities and recommendations to advance the European Continental Shelf Prehistoric Research**. European Marine Board Position Paper 21. McDonough N, Chu, NC (Eds). European Marine Board, Ostend, Belgium, 2014.  
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