



European Marine Board Expert Working Group

Monitoring, Reporting and Verifying (MRV) marine carbon dioxide removal

Terms of Reference

December 2023

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1. *Background and Rationale*

Background

In 2015, nearly all countries in the world signed the Paris Agreement with the overarching goal to keep the global temperature rise this century to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C. A 2018 report of the Intergovernmental Panel on Climate Change (IPCC) (IPCC, 2018) highlighted that the projected impacts of global warming are likely to be much more severe with an average global warming of 2°C compared to 1.5°C, stressing the need to limit global warming to 1.5°C. The IPCC report further highlighted that to hold the planet's long-term average temperature to below the 1.5°C threshold, the world will have to reach net zero greenhouse gas emissions by 2050, and significantly curb carbon dioxide (CO₂) emissions (by about 45% of 2010 levels) by 2030. The European Union (EU) is committed to achieving these emissions reduction objectives, and they were enshrined in the European Climate Law¹ in 2021. This Law stipulates that the EU has to reach net zero greenhouse gas emissions by 2050, and reduce emissions by at least 55% by 2030, compared to 1990 levels. Although reducing emissions is vital to achieving these objectives, deployment of carbon dioxide removal is now considered unavoidable. The IPCC estimated that in addition to reaching net zero greenhouse gas emissions by 2050, we must remove between 100 and 1000 gigatons of CO₂ from the atmosphere by the end of this century to limit global warming to 1.5°C (IPCC, 2018). This need is also recognised in the EU Climate Law, which stipulates that the EU shall aim to reach negative emissions after 2050.

Carbon Dioxide Removal (CDR) is defined as capturing CO₂ from the atmosphere and storing it long-term, i.e. for decades to millennia. This storage can be on land, in the Ocean, in geological formations or in products. It can thus take many forms, from land and Ocean management practices such as forest or Blue Carbon ecosystem management and restoration, to technologies such as direct air capture, where chemical or physical processes are used to extract the CO₂ directly from the air. To date, most CDR developments have been focused on land-based solutions and therefore almost all current CDR efforts (which account for 2 gigatons of CO₂ per year) consist primarily of different types of forest management (Smith et al. 2023). However, to achieve the required climate targets, novel CDR methods are required, including those linked to the Ocean (Smith et al. 2023).

The potential of the Ocean to sequester and store carbon dioxide is huge compared to land. The Ocean already holds more carbon than any other part of Earth's biosphere and has the potential to store even more, particularly through its vast size (Ocean Visions, 2023a). Marine CO₂ removal approaches include: Electrochemical Ocean CO₂ removal, carbon capture and storage (CCS), Ocean alkalinity enhancement, restoration and protection of Blue Carbon ecosystems, increasing phytoplankton productivity through Ocean fertilisation, seaweed farming, and artificial upwelling and downwelling (National Academy of Sciences, Engineering, and Medicine, 2021)². However, most of these approaches are still in their infancy and require additional research and testing. Moreover, there are potential environmental and social risks, and some of these methods are therefore currently prohibited until the risks and benefits are better understood. For instance, the London Convention and London Protocol³ prohibit Ocean fertilisation except for research⁴. The Convention

¹ https://climate.ec.europa.eu/eu-action/european-climate-law_en

² For more information on each method see: <https://oceanvisions.org/ocean-based-carbon-dioxide-removal/>

³ <https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx>

⁴ <https://www.imo.org/en/OurWork/Environment/Pages/OceanFertilization-default.aspx>

on Biological Diversity (CBD) requires that no climate-related geo-engineering activities with risks for biodiversity take place until there is an adequate scientific basis to justify such activities, and that appropriate consideration should be given to the associated risks to the environment, society and economy (European Marine Board, 2023). In addition, there is currently large uncertainty on the magnitude of the climate benefits that could be achieved, even for “non-risky” marine CDR approaches, such as Blue Carbon ecosystem restoration (European Marine Board, 2023; Williamson & Gattuso, 2022). Obtaining knowledge about the feasibility, effectiveness and safety of marine CDR approaches is therefore a high priority.

Rationale

Acknowledging the large oceanic carbon storage potential, marine CDR is currently being explored by publicly funded research and private start-ups. However, for marine CDR to be deployed responsibly more research is needed, and high-quality standards in terms of Monitoring, Reporting, and Verification (MRV) is needed. MRV is also crucial for ensuring that CDR activities generate the promised climate benefits and for the transparent regulation of a growing carbon removal market, such as the EU Emissions Trading System (EU ETS)⁵ that currently regulates significant parts of European carbon dioxide emissions⁶. The importance of being able to accurately monitor, report, and verify the amount of carbon durably removed over time, and to measure the environmental effects of the marine CDR technology, was also highlighted as a priority in a recent high-level roadmap to “prove or disprove marine carbon dioxide removal technologies by 2030” (Ocean Visions, 2023b). MRV is essential to evaluate the efficacy and effects of technologies being tested in controlled field trials and to assess if they are viable for future deployment at scale.

Reliable MRV of marine CDR approaches will require accurate quantification of the amount of CO₂ removed from the atmosphere, the durability of that removal, and non-carbon impacts on the marine environment. This will depend on the functional biodiversity of plankton (and other primary producer and consumer) communities, as different species have different carbon utilization strategies that directly effect the amount of carbon removed and the potential for sequestration. In addition, there are direct impacts of changing carbon dioxide on the calcification of plankton, which also impacts CDR. Thus, accounting for CDR needs to take into consideration the species involved, and their physiology which will impact the carbon assimilation that will affect CDR.

Given the vastness of the Ocean, the slow gas exchange across the sea surface, and the difficulty of defining baselines under ongoing environmental change, accurate estimates are challenging and need to include reliable uncertainty estimates. However, the required measurements, their integration with numerical models and the transparent provision of useful information are critical.

The Ocean science community has access to, and experience with, Ocean observing and modelling infrastructure. The expertise of marine scientists is therefore vital to develop accurate measurement and model-based information schemes. Open and reliable data are key for full accountability, and protocols have to be developed to ensure that MRV could be carried out in line with the highest standards, ensuring that societal decisions about the use of marine CDR can rely on accurate, transparent and reliable information. The need for advancing knowledge regarding marine CDR was also stressed in a letter signed by over 400 scientists calling to advance responsible research,

⁵ https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_en.

⁶ Note: The EU ETS currently only regulates (positive) greenhouse gas emissions and has no mechanisms that allow for the inclusion of (negative) CO₂ removal credits (Rickels et al. 2021).

development and field testing of Ocean-based carbon dioxide removal techniques to determine their potential to help restore the climate and the Ocean⁷, as well as in a recently published Code of Conduct for marine CDR research (Boettcher et al. 2023).

Finally, policy and regulatory frameworks are key to achieving successful CDR that have sufficient MRV. CDR is attempting to address a global issue and needs global frameworks, but the potential risks to marine ecosystems may require much more local consideration. Given the various scales this will need interventions from local to regional to global scales. This could be the role for Regional Sea Conventions and the EU at a regional level, to provide frameworks for monitoring impacts at more local scales, and support baselines assessments and risks assessments.

In October 2023, MRV of marine CDR was selected by the EMB Board as a new Working Group topic. EMB Delegates noted that publications on negative emission technologies are missing fundamental science, and that carbon removal is likely to become a hot topic in the coming years. Learning about MRV of marine CDR will help society and policymakers to make well-informed decisions for achieving climate goals at national, European and international level. In addition, transparent, scientifically underpinned MRV approaches will be critical to including marine CDR in efficiently regulated carbon markets. The topic of MRV of marine CDR is also very timely to address Challenge 5 of the Ocean Decade, namely unlocking Ocean-based solutions to climate change, as well as to address the call for robust MRV of marine CDR in the COP28 Dubai Ocean Declaration⁸ of the 2023 United Nations Climate Change Conference.

2. Working Group Objectives

The aim of this working group will be to produce a Future Science Brief of ~30-40 pages on the topic of marine Carbon Dioxide Removal (CDR), with a strong focus on monitoring, reporting and verification (MRV) of these activities. The document should provide a state-of-the-art overview on the topic and conclude with relevant recommendations for policy and research funding. It is important that it is written in non-technical language so that it is understandable for a wide audience, including policy makers. The document will be primarily written from a European perspective, but due to the global nature of marine CDR, it will have global relevance.

Specific topics that could be addressed in this document include (but are not limited to):

- Explaining the role of the Ocean and its biodiversity in naturally absorbing and storing atmospheric CO₂ and how this will change with different climate change scenarios;
- Outlining the amount of CDR needed to achieve climate objectives, current methods that are used or being developed, and the role that marine CDR can play;
- Providing an overview of the different methodologies for increasing marine CDR (through human intervention), including their potential for success, limitations and risks. This should include the degree of CO₂ sequestration from the atmosphere that could be reached by the different methods, timescales to achieve long-term storage, environmental and social concerns and risks, and potential benefits of the different methods;
- The Policy and regulatory frameworks needed for success;

⁷ <https://www.oceancdrscience.org/>

⁸ <https://oceanpavilion-cop.org/dubai-ocean-declaration/>

- Determining principles and research needs for reliable MRV, for deploying marine CDR methods at scale, and explaining the currently available methods, limitations, uncertainties and knowledge gaps for MRV of marine CDR, including the current and future potential to answer questions such as:
 - Does the marine CDR activity generate a measurable reduction in the atmospheric CO₂ concentration?
 - How can the CDR effectively be implemented? What are the risks of partial implementation, and risks of uneven implementation of a CDR technology?
 - If and how marine biodiversity modulates CDR, and what are the possible consequences of CDR on biodiversity change under different climate change scenarios?
 - What are the (possible) co-benefits of CDR, e.g. habitat restoration, contribution to tackling Ocean acidification etc.?
 - To what extent can net additional Ocean uptake of atmospheric CO₂⁹ be tracked in response to marine CDR using a combination of sensors, platforms, and models?
 - What are the full energy costs of removing additional CO₂ at the scale of implementation – this will require a full life cycle analysis.
 - How will the durability (permanence) of stored carbon be monitored?
 - What are the impacts on marine ecosystems of marine CDR activities and how do they compare with the impacts of the no-action alternative or of other feasible climate mitigation measures?
 - What are the range of impacts to human populations and how do they compare with the impacts of no-action or of other feasible mitigation measures?
 - What policy drivers are needed to achieve successful CDR?

It will be important for the working group to be aware of current activities and conversations to avoid duplication of efforts where possible. For instance, Ocean Visions¹⁰ has developed many relevant resources, such as the high-level roadmap to “Prove or Disprove Marine Carbon Dioxide Removal Technologies by 2030” (Ocean Visions, 2023b), free illustrations depicting and explaining the different Ocean-based CO₂ removal methods¹¹, and a knowledge hub on Ocean-based CDR¹². Moreover, there are a number of officially endorsed Ocean Decade activities relevant to this topic, such as the project “marine carbon sinks in decarbonisation pathways”¹³ and the programme “global Ocean negative carbon emission”¹⁴. For Ocean alkalinity enhancement (OAE), a best practice guide with a chapter on MRV has been developed (Oschlies et al. 2023), and the USA’s National Academy of Sciences, Engineering, and Medicine has developed a research strategy for marine CDR and sequestration (National Academy of Sciences, Engineering, and Medicine, 2021).

⁹ Mitigation is additional if the greenhouse gas emission reductions or removals would not have occurred in the absence of the associated policy intervention or activity.

¹⁰ Ocean Visions is non-profit organisation that aims to catalyse innovation at the interface of Ocean and climate, and facilitate multi-sector collaborations to fully explore and advance responsible and effective ocean-based climate solutions: <https://oceanvisions.org/>

¹¹ <https://oceanvisions.org/ocean-based-carbon-dioxide-removal/>

¹² <https://community.oceanvisions.org/>

¹³ <https://oceandecade.org/actions/marine-carbon-sinks-in-decarbonisation-pathways/>

¹⁴ <https://oceandecade.org/actions/global-ocean-negative-carbon-emission/>

3. Working Group Composition

Working Group Chair and co-Chair

The Working Group (WG) Chair and Co-Chair represent the WG and take responsibility for its deliverables.

Profile

The Working Group (WG) Chairs should have significant experience and expertise and be leading on the topic at national and/or European level. It is important that the Chair and Co-Chair have a big picture approach to ensure a focused and balanced view on the topic, and that they fully commit to facilitating the writing of this document.

Selection process

The Working Group (WG) Chair and Co-Chair will be selected as a result of a call for WG members' nominations issued by the European Marine Board Secretariat. The European Marine Board Secretariat in consultation with the ExCom, make the selection of the Chair from the pool of nominations received. A WG Co-Chair will be selected by the WG Chair with assistance from the EMB Secretariat.

Roles and responsibilities of Working Group Chairs

The Working Group (WG) Chair and co-Chair are responsible for ensuring the scientific quality of the WG output(s) and its timely delivery according to the WG Terms of Reference and as agreed at the kick-off meeting. The WG Chairs provide scientific leadership and act as the driving force for the WG activities with the support of a dedicated European Marine Board Science Officer who acts in the capacity of WG facilitator (see below). The mandates of the Chair and co-Chair are complimentary and the exact roles and responsibilities can be agreed on a case-by-case basis. **The time contribution estimated for the Chair and co-Chair is 15 days per year per person** (this does not include time to travel to in-person meetings), considering the roles listed below (see Annex 3).

The WG Chairs (Chair primarily and co-Chair when the Chair is not available):

- Chair WG meetings, i.e. moderate discussions and ensure delivery of meeting outputs;
- Coordinate the scientific contributions to the document draft according to the objectives defined at the kick-off meeting;
- Maintain an overview of the content and quality of the various inputs and requests additional expertise if necessary;
- Ensure timely delivery of the WG document;
- Enhance the document's strategic impact by promoting WG activities and output at national and European levels; and
- Report uptake and dissemination of the publication to the EMB Secretariat.

Working Group Members

A Working Group of approximately 12 members is proposed.

Profile

The selected Working Group Members will preferably have a background in at least one of the following fields:

- Marine CO₂ removal approaches;
- Marine biogeochemical modelling;
- Marine biogeochemistry;
- Feedback between biogeochemical cycles and climate;
- The carbon cycle and the biological carbon pump;
- Carbon accounting;
- Marine biology/ ecology, including biodiversity and Nature based Solutions (NbS) to carbon removal;
- Marine geology;
- Measuring and observing carbon in the Ocean (and in the atmosphere);
- Marine social/ socio-economic science with relevance to marine CO₂ removal;
- Marine engineering and technology relevant to marine CO₂ removal approaches;
- Ocean governance or international law;
- Philosophy and ethics relevant to uncertainties and risks of marine CO₂ removal through human intervention.

Working Group Member selection process

The Working Group (WG) experts will be selected as a result of a call for WG members' nominations issued by the European Marine Board Secretariat to the European Marine Board Member Organisations. WG Members are usually drawn from EMB Member organisations, although Delegates may also propose WG Members from relevant European projects and initiatives, industry and non-profit organisations if no internal candidates are available.

The co-Chairs will select the WG Members from the proposed nominations. If the Chair and co-Chair believe that external expertise are needed they can propose additional experts, which have to be approved by the ExCom. Decisions on the composition of the WG are guided primarily on the basis of achieving the correct balance of expertise required to comprehensively address the topic at hand. When the expertise criterion has been exhausted, decisions between candidates can be made on the basis of ensuring a broad geographical representation and gender balance for the WG. Non-selection of some nominated candidates is therefore normal and bears no relation to the scientific excellence of candidates not selected.

Roles and responsibilities of Working Group Members

Working Group (WG) Members are responsible for ensuring the scientific quality of their inputs and their timely delivery according to the WG Terms of Reference. **The time contribution estimated for the Working Group Members is 7.5 days per year per person** (this does not include time to travel to in person meetings), considering the roles listed below (see Annex 3).

WG Members:

- Prepare for and attend the WG meetings;
- Submit written contributions within deadlines agreed at the kick-off meeting;
- Respond to comments and submit revisions within specified deadlines;
- Provide the EMB Secretariat with images and figures, with appropriate copyright;

- Guide and adhere to the high-level strategic objectives of the publication;
- Promote the resulting publication at national level and European levels; and
- Report uptake and dissemination of the publication to the EMB Secretariat.

Engaging the wider community

During the course of the Working (WG), members may invite a selection of stakeholders or observers from the wider community to participate (e.g. from science, industry, policy, funding agencies).

Interaction with relevant international and European initiatives working in this field should be explored. This could be achieved through informal interactions during the writing process, through consultation and/or workshops held during the lifetime of the activity, by engaging key people as external reviewers, or by selecting several key experts to serve as members of the WG.

EMB Secretariat facilitation

The European Marine Board Executive Director is an *ex officio* Working Group (WG) manager. S/he nominates one or two Secretariat Science Officers to support and facilitate the WG.

The EMB Secretariat will coordinate this activity with the Chair and co-Chair. A dedicated EMB Science Officer will act in the capacity of facilitator and other EMB Secretariat staff may be involved depending on the specific topic for each WG activity.

- WG manager: Sheila Heymans, EMB Executive Director
- WG facilitator: Ana Rodriguez, Science Officer

4. Mode of Operation

Work programme

The work programme for the Working Group (WG) will consist of:

- One kick-off meeting and a number of additional meetings (remote meetings via video conference or in-person, to be considered by the working group);
- Writing assignments;
- Regular email interactions and online progress meetings (as agreed by the WG);
- Editing to publication standard by the WG Chair/Co-Chair and EMB Secretariat;
- Revisions based on peer review comments (see section 5); and
- Final copy-editing and design by the EMB Secretariat and WG Chair /Co-Chair.

Support from the EMB Secretariat includes:

- Organisational support for WG meetings;
- Cost of all catering associated with WG meetings, including a WG dinner;
- Costs of publication (including design and printing) and dissemination of the document to relevant stakeholders;
- Writing and disseminate of meeting minutes, and maintenance of regular dialogue with the WG Chair and Co-Chair to ensure timely delivery of the document.
- Monitor and report the progress of the WG to EMB Board;
- Maintain the webpage for the WG; and
- Provide technical editing, graphic design and layout of the publication to guarantee the EMB style.

Note: WG Members and Chairs are not financially supported by the EMB (unless an extraordinary contribution is secured by one or more EMB Member Organisations). WG member participation (e.g. travel costs) is normally funded by their institution or the EMB member that proposed them for the WG. The establishment of a WG is for a limited duration and the WG will be disbanded by the Board when it has fulfilled its mandate.

General Data Protection Regulation (GDPR) policy for EMB Working Groups

Personal data for EMB Working Group (WG) Members and those involved in other EMB core activities is used for internal communication with the activity as well as external communication of the EMB activity via publications, the EMB website and EMB social media outlets.

For any new EMB activities, consent is sought at the kick-off of the activity to cover all relevant use and storage of personal data. The personal data of the working group members is retained beyond the end of the activity to enable follow-up communications for impact reporting and on related topics, and thus their data will continue to be stored, unless consent is later withdrawn. A template consent form can be found in Annex 1.

Reviewers are also contacted within the context of EMB activities. The template email they receive clearly outlines their right to act such that their input remains anonymous, in which case the reviewer would simply be listed as “Anonymous”. The reviewer will be informed of how and where their personal data will be stored. The consent of the reviewer will also be specifically sought for their personal data to be used outside of any activities directly relating to their role as reviewer, using the template text included in this document.

The [EMB privacy policy](#) contains information about our compliance with GDPR (data protection law). In this document you can find how to send us a request to let you access your data that we have collected, request us to delete your data, correct any inaccuracies or restrict our processing of your data. Please contact us at info@marineboard.eu for more information or concerns. You have the right to lodge a complaint about the way we handle your data with [Belgian Data Protection Authority](#).

5. Deliverables

The output of this Working Group (WG) is expected to be a Future Science Brief.

The document will be peer-reviewed by a minimum of two external reviewers (ideally one European and one international) selected from proposals by the Working Group Members, and will be coordinated by the EMB Secretariat. In accordance with the EMB procedures, the document will also be sent to EMB Member organisations for internal review and approval prior to finalization and publication.

The impact of the publication will be achieved *via* a targeted dissemination strategy as described below. WG Members will be required to make suggestions on how to reach end-user contacts and to contribute to the dissemination. Promotion of the document may include dedicated presentations at stakeholder events. WG Members will also be asked to notify the Secretariat of any dissemination activities or observed uptake / impact for up to two years following publication, for future impact reporting. A full outline of the decision-making procedure and system for WG operations is outlined in Annex 2.

6. Target Audience and Expected Impact

This specific publication/event targets the following stakeholders:

- European and International policy-makers, who will be able to use this document to understand the wider context of marine carbon dioxide removal, its feasibility, risks and potential contribution to reach climate objectives, and apply this knowledge in developing policies and strategies;
- European and national research funders, who will be able to use this document to understand priority directions for research in relation to monitoring, reporting and verifying of marine carbon dioxide removal;
- The marine science community, both those specifically working on research fields related to marine carbon dioxide removal, and those that just have an interest in the topic and want to learn more about it;
- Technology developers, who will be able to use the document to identify critical areas and types of innovations needed to support marine carbon dioxide removal.

In addition, the document might be of interest to science communicators and the media, citizens, industry and anyone else with an interest in marine carbon dioxide removal methods and our current understanding of it, including the likely efficacy and potential effects of technologies being tested, as well as the areas where further development and research is required.

7. Communication and Dissemination Strategy

The targeted dissemination strategy includes, but is not limited to:

- Developing infographics to communicate key concepts and main messages from the document;
- Collecting photographs and other graphics to include in the document, social media, and other communication activities;
- A dedicated launch event;
- A news release on the EMB website and shared with EMB member organisations to share on their websites;
- Social media content for launch of the document;
- A printed version of the document sent to relevant stakeholders; and
- Presentation of the document by WG members and EMB Secretariat at relevant national and European events.

8. Indicative Timetable

The Working Group (WG) activities are foreseen to start in spring/summer 2024 and continue for 18-24 months from kick-off, including at least three meetings and likely more as agreed by the WG. It is foreseen to publish the final document in early 2026, which will include a dedicated launch event (in person, online or both) and electronic and hard copy dissemination to relevant stakeholders. The European Marine Board conduct impact reporting, based on feedback from WG members and wider

stakeholders, for a period of up to 2 years following publication. An indicative time-table and order of activities is presented below.

Tasks (2024-2026)	2023	2024												2025												2026
	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
Approval of ToR by EMB member organisations	█																									
Nominations of experts by EMB Board		█																								
Appointment of WG Chairs and expert selection			█	█																						
WG member list confirmed, invitations and planning for kick-off meeting					█	█																				
Kick-off meeting							█																			
Drafting of content (with remote meetings between EMB, Chairs and WG as necessary)								█	█	█	█	█	█	█	█											
Review & editing by EMB and Chairs, finalize text and graphics															█	█	█	█								
Approval of publication by WG members																				█						
Internal and external review, and revisions																					█	█	█			
Design of the publication																								█		
Publication and dissemination																									█	█

9. References

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Annex 1: Consent form for Core Activities

EMB holds personal data for anyone involved in core EMB activities, including Working Groups.

The following personal data may be held by the EMB Secretariat:

- Name
- Title
- Job title
- Areas of expertise and research interests
- Previously held roles
- Institute
- Country
- Institutional email address
- Institutional postal address
- Institutional telephone number
- Photographs
- Video

This information is stored in a secure spreadsheet and folder locations, and only EMB Secretariat staff have access to this.

EMB may:

- Contact you regarding the EMB activity that you are directly involved with
- Contact you regarding other EMB activities
- Add you to the EMB stakeholder mailing list
- Make your name, institution and country publicly available on the EMB website, in EMB communications, e.g. presentations regarding the activity you are involved in, and in EMB publications
- Take your photograph during EMB activities and use these pictures in publications, on the EMB website and on EMB social media outlets
- Take video footage during EMB activities and use these pictures in publications, on the EMB website and on EMB social media outlets

The data held may be reviewed and revised by the subject, and consent for any or all of the above may be withdrawn at any time.

Please tick this box to confirm that you understand the above, and that you give EMB permission to obtain, use and store your personal data as outlined above.

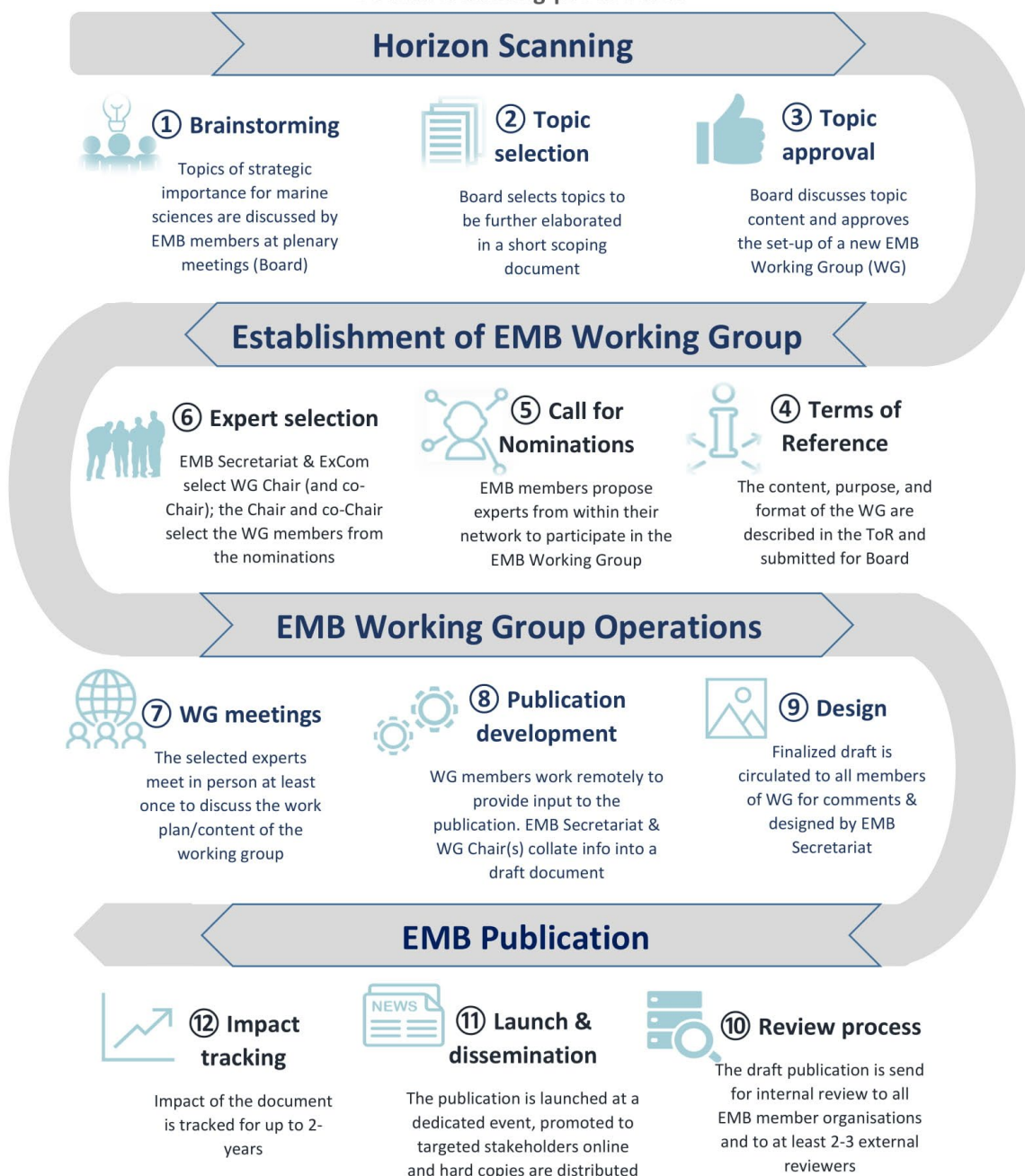
Name:

Date:

Annex 2: Decision Making Procedure

EMB Working Groups & Publications

Decision making procedures



Annex 3: EMB Time Contribution for Working Group Chair, Co-Chair and Members

Chair	Time per year (in days)*
Chair WG Meetings	1.5
Individual meetings w/ Secretariat	1
Coordinate writing and content	5
Editing and reviewing document	5
Promotion of WG activities and output	2
Record impact of publication	0.5
Total	15

Co-Chair	Time per year (in days)*
Co-Chair WG Meetings	1.5
Individual meetings w/ Secretariat	1
Coordinate draft contributions of WG members	5
Editing and reviewing document	5
Promotion of WG activities and output	2
Recording impact of publication	0.5
Total	15

WG Member	Time per year (in days)*
Attend WG Meetings	1.5
Contribution to publication (text, images, editing, review..)	5
Promotion and dissemination of publication	0.5
Assist in recording impact of publication	0.5
Total	7.5

* It is to be noted this overview is an estimation and may differ from the actual time contribution.
Travel time is not included.