



Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning

Project Final Report:

Summary of project activities

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E-mail: CINEA-EMFAF-CONTRACTS@ec.europa.eu

*European Commission
B-1049 Brussels*

Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning

Project Final Report



Written by Tony Zamparutti (Milieu Consulting), with Pierre Strosser (ACTeon), Anda Ruskule and Kristine Veidemane (Baltic Environmental Forum), Tanya Milkova and Thomas Dworak (Fresh Thoughts Consulting), Louise Lieberknecht (GRID-Arendal), Guillermo Gea (Milieu Consulting) and Gerjan Piet (Wageningen Marine Research).

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LIST OF ABBREVIATIONS

CBD	Convention on Biological Diversity
CFP	Common Fisheries Policy
EBA	Ecosystem Based Approach
EC	European Commission
EEA	European Environmental Agency
EU	European Union
GI	Green Infrastructure
HELCOM	Baltic Marine Environment Protection Commission (also known as the Helsinki Commission)
ICZM	Integrated coastal zone management
IOC-UNESCO	Intergovernmental Oceanographic Commission of UNESCO
LSI	Land sea interactions
MSFD	Marine Strategy Framework Directive
MSP	Maritime spatial plan/planning
SEA	Strategic Environmental Assessment
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization

1 INTRODUCTION

The *Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning* was contracted by the European Commission (by the Executive Agency for Small and Medium-sized Enterprises, EASME, with DG Maritime Affairs and Fisheries)¹. It was awarded to a consortium that brings together Milieu Consulting with ACTeon, the Baltic Environment Forum, Fresh Thoughts Consulting, GRID-Arendal and Wageningen Marine Research. The project started in November 2019.

The main objective of the study is to:

- 'propose feasible and practical approaches and guidelines for applying the EBA in MSP with the presently available information'
- 'a practical method or tool for evaluating, monitoring and review the application of EBA in MSP'

The Tender Specifications set out five tasks for the project:

- Task 1: Baseline review / State of play on existing knowledge, research, tools and practices linked to the application of EBA in MSP
- Task 2: Critical analysis of the outcome of Task 1
- Task 3: Development of a set of guidelines and tools for the application of EBA in MSP for EU Member States
- Task 4: Elaboration of five cases studies on specific aspects of EBA and MSP
- Task 5: Organisation of a closing workshop

This report provides a summary of the work done under the project. The main substantive results of the study are presented in the following separate documents along with the final version of this report:

- Infographics overview of project results
- The bibliographic database prepared under Task 1 (while a short list of the main sources used in tasks 2 and 3 is found below in Annex 1 of this report)
- The Task 2 report on the critical analysis of existing knowledge
- Practical guidelines on EBA in MSP (Task 3 results)
- Reports and short fiches for each of the five case studies (Task 4 results)

Sections 2 to 4 of this report provide an overview of the work carried out for each of the five study tasks. Section 5 then provides summary conclusions and recommendations for the study. As noted, Annex 1 provides a short list of the main sources that were used; the summaries of the three project workshops – in November 2020, March 2021 and May 2021 – are found in Annexes 2 to 4.

¹ Contract no. EASME/EMFF/2018/1.3.11/SI2.814068 (following call for tenders EASME/2019/OP/0002). In April 2021, the EMFF unit at EASME moved to the European Climate, Infrastructure and Environment Executive Agency (CINEA).

2 TASKS 1 AND 2: BASELINE REVIEW AND CRITICAL ANALYSIS

2.1 The baseline review

The main objective of Task 1 was to provide a well-structured and easy to grasp overview of the information on the knowledge, methods, practices and tools that are applied (or could have some potential) for integrating Ecosystem-Based Approaches (EBA) in Maritime Spatial Planning (MSP). This overview fed into the work of Task 2, the critical analysis, and from there to Task 3, the preparation of the practical method or guidance.

Task 1 was carried out following several distinct steps: (1) developing and testing the structure of a database, including the screening questions and database fields; (2) collecting information from references, the majority extracted from the European MSP Platform (<https://www.msp-platform.eu/>) to populate the database; (3) developing a summary and a schematic compilation of the information collected.

The key results were presented in the project interim report (June 2020, revised August 2020). The database with over 200 sources was also provided. One important finding is that, while references were expected to address EBA in MSP, many of the more than 200 that were reviewed mentioned EBA or ecosystem services only as a concept without going into the details of their operationalization.

Further research under Task 2 and for the project case studies (see section 4) enriched the information base for the practical method. The main work for Task 1 was carried out in the first months of 2020, and subsequent project work – including for Task 2 – noted that both studies and practical knowledge on EBA in MSP had since grown rapidly. As part of the revised version of the final report, a short list of the main sources used in Tasks 2 and 3 will be provided. This short list is provided in Annex 1.

2.2 Critical analysis

The critical analysis of the baseline, Task 2, built on the review of the literature assembled under Task 1, complemented by additional references relevant to specific methods, tools or EU policies relevant for EBA in MSP, as well as targeted interviews with experts working on key projects in the European regional seas. The aim of Task 2 was to provide information for the development of the practical method or guidance in Task 3.

The analysis addressed the following questions:

- What does EBA in MSP require or imply?
- What evidence, methods and practice can we find in the literature on the application of EBA in MSP?
- What opportunities offered by other EU policies, and in particular by the MSFD, can facilitate the application of EBA in MSP?
- What are specific transboundary issues and challenges that are faced when applying EBA in MSP?
- What is the added value of applying EBA in MSP?

Task 1 (see section 2.1 above) did not find a wealth of sources that provided practical evidence on the development and on-site application of approaches and methods to make EBA principles a reality in MSP. While further sources were found in Task 2, including from initial case study results, key gaps remained.

A first result of Task 2 was to take the literature on EBA principles – which were first described in the Malawi Principles under the Convention on Biological Diversity and then elaborated in various official reports and academic articles – and aggregate the principles into four main groups:

1. Capturing the complexity of ecosystems
2. Giving attention to the human-ecosystem connections and integration
3. Accounting for uncertainty to support adaptive management
4. Organizing the MSP process

The table below from the Task 2 report provides an overview of the depth of the literature found for each of these four groups. (Please note that this refers to the literature available, not necessarily the practice in place, for each principle.)

Table 1: Practical applications of methods, tools and approaches for key EBA principles in MSP presented in the literature

Main EBA principles, organised by four groups		Extent of information in the MSP literature
Group 1 – Capturing the complexity of ecosystems	Ecological integrity and biodiversity	Some information
	Ecosystem connections	Some information
	Dynamic nature of ecosystems	Little information
	Cumulative impacts	Strong information
Group 2 - Giving attention to the human-ecosystem connections and integration	Identify marine and coastal ecosystem services and beneficiaries – and assess their values	Little information
	Assess the economic importance of maritime sectors	Little information
	Carry out socio-economic assessments of options for allocating marine space, and applying EBA in MSP	Hardly any information
	Provide an understanding of long-term socio-economic (global & sectoral) developments	Little information
Group 3 - Accounting for uncertainty to support adaptive management	Make uncertainty explicit	Little information
	Apply methods for assessing implications of uncertainty	Hardly any information
	Apply methods supporting adapting management	Hardly any information
Group 4 - Organizing the MSP process	Mobilise stakeholders	Good information
	Establish a sound (interdisciplinary) science-decision interface	Some information

Key: right-hand column coded from:

- white = hardly any information in the literature,
- to dark blue = practical examples following good EBA practice available

3 TASKS 3 AND 5: PREPARATION OF A GUIDANCE DOCUMENT (A PRACTICAL METHOD FOR EBA IN MSP)

3.1 Objectives

The goal of Task 3 was to prepare guidance to support EU Member States put into practice an ecosystem-based approach in MSP, including an approach for the assessment and review of EBA in MSP.

This task was discussed together with Task 5, the organisation of a closing workshop, as that workshop focused on the draft practical method prepared under Task 3.

3.2 Information base

The preparation of the guidance document drew on the literature review in Task 1, and the further information gathering in Task 2. The case studies (Task 4) provided further inputs, in particular on actual practice in Europe's regional seas as well as in one non-EU context.

3.3 Preparatory and mid-term workshops

Two participative workshops played a key role in the preparation of the guidance: the first was held before drafting began, while the second reviewed the first draft of the document.

- A small, initial workshop on 4 November 2020 sought to identify key challenges faced by planners and practitioners when implementing EBA in MSP, along with key issues for a practical guidance. This workshop brought together 12 participants from across Europe, along with members of the project team and officials of the European Commission.
- A second workshop on 25 March 2021 brought together almost 30 officials and experts from across Europe, along with members of the project team and officials of the European Commission, to review the first draft of the guidance document and provide inputs for its further development.

Please see Annex 2 for an overview of the key results of the first workshop, along with the workshop slides; and Annex 3 for the summary and slides of the second workshop.

In addition, workshops held for the case studies provided further insights into key needs and issues for the guidance (see section 4 below).

3.4 Peer review and final project workshop

The draft guidance was revised following the second workshop. As per the project Specifications, a group of MSP experts provided a peer review of the revised draft at the final project workshop, held on 17 May 2021.

The project team identified experts across key relevant subjects, such as ecosystem valuation and environmental monitoring and assessment, as per the Specifications.

Moreover, the team sought to bring together officials and experts working in the following types of institutions:

- International organisations
- Regional sea organisations
- Member State governments
- Academia
- Environmental experts

The table below lists the peer reviewers.

Name	Institution
Luc van Hoof (Chair)	Wageningen University
Takehiro Nakamura	UNEP Ecosystem Division
Tatiana Hema	Deputy Coordinator and Ecosystem Approach for the Mediterranean, UNEP/MAP
Alejandro Iglesias	OSPAR (formerly at IOC-UNESCO)
Dmitry Frank-Kamenetsky	Professional Secretary, HELCOM
Stéphane Isoard	European Environment Agency: Head, Water and Marine Unit
Tom Woolley	Ireland: Marine Planning Advisor, Department of Housing, Planning and Local Government
Marion Brichet	France: Interregional Directorate for the Mediterranean Sea
Dimitar Berov	Bulgarian Institute of biodiversity and ecosystem research
Helena Calado	University of the Azores
Michelle Portman	Associate Professor – Technion, Faculty of Architecture & Town Planning
Massimiliano Mazzanti	Professor of Economic Policy, University of Ferrara
Mr Jochen Lamp	Former Head, Baltic Sea Office, WWF-Germany (with inputs from Carla Kuhmann, WWF-Germany, and Mauro Randone, WWF-Mediterranean)

The peer reviewers presented their comments on the draft practical guidance at the final project workshop on 17 May 2021. The workshop brought together over 30 MSP practitioners and experts, together with officials from the European Commission and members of the project team. Following the peer reviewers' presentations, the participants at the workshop discussed key issues that the reviewers had identified. A summary of the workshop can be found in Annex 2.

3.5 Overview of the guidance document

The final guidance document contains five main sections:

- Introduction
- Applying EBA in MSP: What is it about?
- How can the EU's regulatory framework support EBA in MSP?
- How to internalise EBA in MSP? A step-by-step approach
- How to monitor, evaluate and review the integration of EBA in MSP?

In addition, a set of annexes provide further detail for users. Notably, the first annex provides a “toolbox”, with a set of factsheets on key tools for integrating EBA in MSP such as cumulative impact assessment.

In the preparation of the practical guidance, it was decided to further simplify the presentation of EBA principles into three broad groups, rather than the four used in Task 2 (see section 2.2). The three groups in the guidance are:

- Capturing the integrity, functioning and dynamics of marine ecosystems
- Incorporating human activities and their potential ecosystem effects along with their socio-economic considerations
- Organising the MSP process with regard to governance and management

The last group combines two of the groups set out in Task 2 and addresses uncertainty and adaptive management.

For further information on the contents of the guidance, please see the document itself and the interactive overview (currently in preparation).

4 TASK 4: PROJECT CASE STUDIES

The project prepared five case studies to support Tasks 2 and 3. As per the project Specifications, the project had four case studies in the EU – one national case study, two cross-border case studies and one case study on valuation – plus one case study outside the EU. For each case study, a report was prepared as well as a two-page fiche highlighting key issues and conclusions.

4.1 National case study: Netherlands

This case study outlines the overall MSP process in the Netherlands and then focuses on the analytical work to evaluate the socioeconomic and environmental consequences of the scenarios for the location of new renewable energy capacity. The case study highlights the constraints that limitations in time and resources can place on the use of key tools for EBA in MSP such as mental models and cumulative impact assessment. This information was used in the preparation of the practical guidance under Task 3.

The case study included interviews with key officials in the Dutch Ministry of Infrastructure and Environment, who also reviewed a draft of the case study's final report.

The case study provided insights into the data and resource needs for key parts of the toolbox in the practical guidance, in particular mental models and cumulative impact assessment.

4.2 Cross-border case study: Baltic Sea

This case study covers two issues at two different geographical scales. First, at the Baltic Sea level, the case study addresses marine green infrastructure (GI). It shows how mapping of marine GI can contribute to integrating the ecosystems-based approach (EBA) in MSP by aggregating comprehensive data sets of ecological information. Mapping marine GI can enhance the connectivity of the network of protected areas, thus contributing to the goals of both the MSFD and the new Biodiversity Strategy to 2030. The case study supported ongoing work in the Baltic Sea, but it notes that common methodologies for mapping marine GI are not yet established.

This part of the case study worked closely with ongoing initiatives in the Baltic Sea. An online expert workshop for the case study was held on 26 October 2020. Draft case study results were presented to the second Planning Forum of the Capacity4MSP Project (financed by the Baltic Sea Interreg Programme). The final case study report was reviewed by two national officials from the Baltic Sea region.

Second, the case study provides an overview of how land-sea interactions were addressed in MSP at the sub-national level in Latvia, focusing on the Kurzeme Region along the country's southwestern coast. This part of the case study investigates how the mapping and assessment of coastal ecosystems, landscapes and ecosystem services for local communities can support EBA in MSP at a sub-national scale. This part of the case study worked closely with the implementation of MSP in Latvia, and in particular the process in the Kurzeme Region. It drew on the results of an online surveys and a face-to-face scenario-building workshop held with stakeholders in the region.

For the practical method, this case study's results yielded a factsheet on the mapping of marine GI as a tool for EBA in MSP: a draft of the factsheet provided input to the Task 2 report and it was revised for the Task 3 report.

4.3 Cross-border case study: Black Sea

This case study reviews the development of MSP in Bulgaria and Romania, including bilateral projects, and investigates how the requirements and instruments of the existing EU legal framework, in particular the Marine Strategy Framework Directive (MSFD), the Water Framework Directive (WFD), the Common Fisheries Policy (CFP), and the Birds and Habitats Directives can support and facilitate the application of EBA in MSP, including in a transboundary context.

Preliminary case study results were discussed at a workshop on 27 January 2021 that brought together 67 participants from the Black Sea region, from other European regional seas, and from the European Commission and the study team. The workshop reviewed key issues for EBA in MSP in the Black Sea and identified a series of recommendations to strengthen EBA in this area. The final project report further develops these recommendations.

The case study contributed to the overview of the EU regulatory framework developed in the Task 2 report and in the practical guidance under Task 3. The case study also contributed to national work on implementing MSP, for example via approaches and experience that experts in other sea basins contributed at the workshop.

4.4 Valuation case study: Northern Adriatic

This case study focuses on the assessment of ecosystem services in the Northern Adriatic. The identification and assessment of ecosystem services was carried out using existing knowledge and literature. The valuation of these ecosystem services built on the combination of several activities: socio-economic information from available statistics, reports and scientific literature; interviews with representatives from selected sectors where socio-economic information is fragmented or not easily accessible; and the an internet-based citizen survey (with a representative sample of 1000 citizens from the Italy, Slovenia and Croatia) to assess citizens' connections with the Northern Adriatic Sea and their willingness to pay for different attributes of marine ecosystems.

The assessment illustrates the diversity and socio-economic importance of ecosystem services delivered by the Northern Adriatic Sea for these three Member States. Nonetheless, data on the socio-economic importance of marine ecosystem services remain fragmented, and further efforts are needed to communicate the benefits to key stakeholders that benefit from these services, and to the public. Preliminary case study results were presented at an online workshop on 10 March 2021 that brought together over 30 participants from the region.

This case study has contributed to the presentation of ecosystem services and of valuation techniques in the practical guidance.

4.5 Non-EU case study: Massachusetts

This case study focuses on the Massachusetts Ocean Management Plan, published in 2009 and then reviewed in 2015. It looks at two cross-cutting issues for EBA: adaptive management, in particular the 2015 revision process; and the integration of knowledge, perspectives and work from different sectors and sources. The case study drew on written material and on interviews with key players in Massachusetts. The case study contributed insights to the practical guidance, in particular on the monitoring, review and evaluation of MSP: it showed the value of expert and stakeholder engagement and also showed an approach for regular reviews of a maritime spatial plan carried out with strong stakeholder and expert input – but without a set of indicators to track progress.

5 SUMMARY AND RECOMMENDATIONS ON EBA IN MSP

This *Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning* prepared practical guidance for applying EBA in MSP. The study has shown, however, that the application of EBA is and will be an ongoing process. This section provides key highlights from the work of the study as well as a set of recommendations for possible next steps.

5.1 Overview

At the start of the study, the review of literature (Task 1 of the study) identified over 200 sources that discussed EBA in MSP but found that few of these provided practical information on how to integrate EBA in an operational way. Subsequent work, in particular for the analysis of the literature (Task 2) and the case studies (Task 4) identified further work. Nonetheless, gaps remain in key areas such as:

- Assessing the dynamic nature of ecosystems
- Identifying and assessing marine and coastal ecosystem services
- Understanding long-term socio-economic changes
- Methods and tools that adequately incorporate for uncertainty and can be applied for adaptive management

The study took place during a period of rapid development in the EU: Member States were preparing their maritime spatial plans in response to the March 2021 deadline set in the MSP Directive. Reports and analysis of EBA and MSP were also being developed in this period, and a wealth of new literature is likely to appear in the near future reviewing recent experience MSP experience.

One issue that arose in early discussions with practitioners is that the concept of EBA can be difficult to operationalise: the CBD presented 12 Malawi Principles, and subsequent authors have modified and at times lengthened the list of principles. The analysis of the literature, followed by work on the guidance, grouped a wide range of EBA principles into three broad categories, with the goal of facilitating an understanding of EBA and providing practical guidance for its application. The three main elements are:

1. Capturing the integrity, functioning and dynamics of marine ecosystems
2. Incorporating human activities and their potential ecosystem effects along with their socio-economic considerations
3. Organising the MSP process with regard to governance and management

Drawing on work in the Baltic Sea, the study and the guidance document identified five main stages for MSP and for work to integrate EBA:

1. Defining: setting the frame for the MSP, organising the MSP process and identifying its priority objectives and principles (societal goals)
2. Developing: building the knowledge base including stocktaking and analysing data and other information
3. Assessing: Assessing and weighing planning alternatives
4. Implementing: Implementing the plan
5. Follow-up: Evaluating results and performance

The three main elements of EBA and the five main stages for MSP provide the structure for the practical approach set out in the guidance. Each Member State will need to adapt this approach to its national as well as its regional sea context.

5.2 Recommendations for next steps

A first recommendation is to encourage officials, practitioners and stakeholders in **Member States**, in non-EU countries and in Regional Sea Commissions to draw on the guidance in their work on EBA in MSP. This will be an iterative process that can deepen the integration of EBA into MSP over cycles with each iteration. Moreover, a key recommendation is that adaptive management, a core part of EBA, should be seen as a continuous process within each cycle.

The guidance shows that the EU regulatory framework provides important objectives that require EBA to be incorporated in MSP, data to analyse ecosystems and human-ecosystem interactions, tools to support EBA, and also cross-cutting processes, notably for stakeholder engagement, cross-border and land-sea interactions, that can support EBA in MSP. Work in Member States as well as between Member States should fully ensure these synergies. Coordination with the MSFD cycle (and with it, the WFD cycle) can strengthen these synergies: many Member States have aligned their cycles for maritime spatial planning with the MSFD; others should consider this.

EBA calls for attention to ecosystem scales, which mostly cross territorial borders in **Europe's regional seas**. A broad range of projects and activities are supporting cross-border work on EBA in MSP; however, the study's literature review and consultations suggest that cross-border issues are not fully addressed in many current and upcoming maritime spatial plans. Continuing work across borders and especially at regional sea level can deepen cross-border considerations for EBA in MSP. Assessment of marine ecosystem and service supply, including mapping of green infrastructure and connectivity assessment preferably shall be carried out at the scale of regional seas. Moreover, regional seas have taken different approaches and have focused on different elements due to regional differences. Nevertheless there are a lot of issues in common and it will be valuable to share lessons across Europe's regional seas. The Secretariats of the Regional Sea Conventions on Marine Protection should play a crucial role in promoting EBA in MSP.

The **European Commission** can support the ongoing integration of EBA in MSP through a range of possible activities, such as:

- Fostering exchanges among regional seas, for example between the Mediterranean and Black Seas
- Supporting data collection and organisation through EMODnet, integrating data from the Copernicus Marine Service and other sources
- Organising a peer-to-peer support process to share good practices across Member States and support officials and practitioners. Such a system has been used for the Water Framework Directive, where it included workshops on common challenges identified via peer-to-peer visits and discussions. (Another example is the biogeographical process in which the European Commission has brought together stakeholders via seminars, workshops and other activities to improve the implementation, management, financing and reporting of the Natura 2000 network².)

² See: https://ec.europa.eu/environment/nature/natura2000/seminars_en.htm

- Facilitating discussions on common challenges for EBA in MSP in the Member State Experts' Group on MSP.

The study has identified several areas for the development of methodologies and identification of good practices. These include:

- Further methodological development and exchange of experience on the assessment of cumulative impacts of all relevant human activities
- Identification and assessment of marine and coastal ecosystem services; this could be supported by a network of researchers established by ESP³ or by the IPBES⁴ process.
- Development of common methods to identify uncertainties and address them in EBA processes
- Methods and analysis to support the implementation of key objectives in the Biodiversity Strategy to 2030 in MSP. These include common methods for the identification and assessment of marine green infrastructure (ecosystem conditions, connectivity and ecosystem service supply) to preserve ecological corridors and other areas, and the identification of new marine protected areas to reach the Strategy's goal of protecting 30% of the EU's sea areas.

The guidance developed in this study provides a framework both for integrating EBA in MSP, the degree to which this is implemented, and the assessment of the results. The Commission could use this framework in assessments that identify good practices, areas for attention and common issues, with the goal of enhancing EBA in MSP. This work would also provide lessons for reviewing and improving the framework as a whole: as the guidance itself notes, the integration of EBA in MSP is an ongoing activity that will be enriched by ongoing experience and the development of better methods.

³ Ecosystem Service Partnership, <https://www.es-partnership.org/>

⁴ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, <https://www.ipbes.net/>

ANNEX 1: Literature review: overview of main sources used in the study

Task 1 of the study identified over 200 sources that addressed the ecosystems-based approach and maritime spatial planning. As noted in section 2, however, few of these sources provided practical information on applying EBA in MSP. The analysis of the literature in Task 2 then identified a small set of key sources, which were used in Task 3 (along with some additional sources added in the work for Task 3). This section provides the final list of main sources for the study. (The list of over 200 sources identified in Task 1 was submitted with the project interim report in July 2020.)

This section provides the main sources for the study. It includes the sources cited in this guidance as well as other key sources reviewed over the course of the work.

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ANNEX 2: Summary of the November 2020 workshop

Summary of the informal project workshop on Developing a practical method to provide guidance for integrating EBA into MSP

4 November 2020

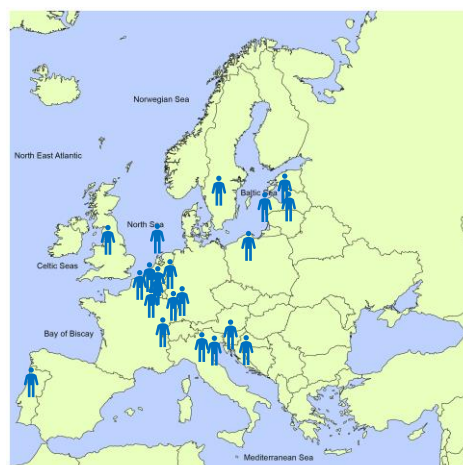
Overview

The workshop had the following aims:

- To identify and share the main challenges and difficulties faced by MSP planners and practitioners when implementing Ecosystem Based Approaches (EBA) – along with potential solutions and opportunities to be seized for responding to these challenges.
- To identify what a practical method providing guidance should include to support the operational integration of EBA in MSP and to respond to the needs of existing and potential end-users. To avoid duplication, attention will be given to issues not fully covered by existing guidance.
- To present the road map for developing the practical method and identify how workshop participants who wish to can continue guiding this process.

The workshop was designed to bring together a small group of MSP experts with members of the project team and officials of the European Commission.

In total, 12 external participants, together with project team members and officials of the European Commission, joined the online workshop (please see Appendix 2.1 for the list of participants and Appendix 2.2 for a screen shot of some of the discussion). Participants from three of the four EU regional seas attended (please see the map); their backgrounds included MSP practitioners, researchers and consultants. Due to technical problems with the web platform, however, not all those attending were able to participate fully in the discussions.



This summary below highlights the main points emerging from each session.

Session 1 – 10.00 – 12.00 Identifying key features and needs

Introduction and setting the scene

In the opening session, participants introduced themselves and Tony Zamparutti of Milieu provided an overview of the project (see Appendix 2.3 for the slides).

Participants were asked to describe their main expectations from the workshop. These included:

- **Learning** about how to better integrate EBA in MSP, finding **practical solutions** for addressing key challenges for applying EBA in practice, learning about smart **tips and tricks that can foster EBA**
- Identifying the **priority needs** of MSP practitioners in terms of guidance and support, including their knowledge priorities
- Collecting views and ideas on **how to justify and sell EBA** to policy and decision makers (developing a good narrative).

Pierre Strosser of ACTeon then presented an overview of the initial results of the assessment of literature gathered for the project (see the slides in the Appendixes).

Key features for integrating EBA into MSP: Priority challenges faced

In this session, participants were asked to identify the main challenges they saw for the integration of EBA into MSP. The main challenges they identified included the following:

- The **absence of sufficient knowledge** on the functioning of marine ecosystems - and knowledge at the right scale
- The **absence of modelling tools** that help capturing the complexity of ecosystem functioning and dynamics
- The **absence of clear methods for “screening” and identifying key components** of the marine ecosystems that need specific attention in the context of MSP

Practical aspects for the development of further guidance

This session reviewed two examples of existing guidance and discussed the areas where further guidance would be valuable.

Participants were asked to fill out a poll indicating the existing guidance documents they were aware of. The following **informal poll results** were provided at the start of this session (please note that participants could choose more than one answer):

- 50% responded that they have used the 2009 UNESCO guidelines⁵
- 21% said that they had used the 2019 guidelines prepared by the Pan Baltic Scope project⁶
- 50% choose “other national or international guidance”
- 7% said that they had worked on EBA in MSP without consulting a guidance document
- 21% said that they had not yet worked on EBA in MSP

One participant said that several guidance documents had been reviewed when considering how to integrate EBA into MSP; however, these had to be translated into operational tasks that fit within the specific national planning process.

A common point in the discussion in this session is that guidance should focus in particular on **how to strengthen the ecological dimension of MSP** in relation to the different EBA principles. For example, in relation to stakeholder mobilisation, the question is less about bringing on board all a long list of possibly relevant parties, but rather ensuring that stakeholders directly involved in key ecosystem components, such as fisheries as well as biodiversity stakeholders, all have a due role and consideration in

⁵ Marine spatial planning: A Step-by-Step Approach toward Ecosystem-based Management – UNESCO (2009): <https://unesdoc.unesco.org/ark:/48223/pf0000186559>

⁶ EBA in MSP – a SEA inclusive handbook – Pan Baltic Scope (2019): http://www.panbalticscope.eu/wp-content/uploads/2019/12/EBAinMSP_FINAL-1.pdf

the MSP process. More generally, priority should then be given to **how to strengthen the consideration and role given to ecosystems** in terms of knowledge gathered, methods, tools and stakeholders.

Two presentations were made on existing guidance documents.

Joseph Kofi Ansong, MSPglobal International Expert for IOC-UNESCO, presented **the 2009 UNESCO guidelines**. He noted that at the time the guidelines were written, EBA was mainly a framing concept for implementing MSP, used by practitioners in discussions about what MSP is. At that time, MSP was not really operationally used.

Joseph noted that a number of key subjects were not addressed at the time. These included: transboundary aspects and the different level of governance that may implement MSP, addressing the Sustainable Development Goals (SDGs) through MSP, the role of blue economy policies for better stewardship of the ocean, and social aspects such as equity and the well-being of coastal and indigenous communities. A revised set of IOC-UNESCO guidelines is now in preparation and should be published in 2021.

Philipp Arndt of the German Federal Maritime and Hydrographic Agency (BSH) presented guidelines released last year by the **PanBalticScope** project. Philip noted that the process that led to the handbook was important: it involved discussions with planners on which tools were most useful. He noted that each planner will need to work within their own legal and institutional frameworks for EBA related issues and for MSP, so the practical steps for integrating EBA into MSP will vary. He also said that further guidance on addressing ecosystem services when integrating EBA in MSP is needed.

Session 2 – 14.00 -16.00 – Co-developing the practical method

The afternoon was divided into three consecutive working sessions⁷. These covered: assessment methods, stakeholder involvement and other EU legislation.

Assessment methods

Gerjan Piet of Wageningen Research and member of the study team led the discussion with a series of slides (please see Appendix 2.3 below).

The first part of the discussion considered **whether additional tools and methods**, in addition to the those presented in the slides, should be considered. Participants mentioned that the following types of tools and methods are or would be useful:

- tools for assessing biodiversity in multi-use situations
- methods to screen and prioritise the key ecosystem components and linkages to be assessed, based on the scale of MSP implementation and relevant biophysical and ecological components and processes
- methods to model projected climate change impacts
- multi-criteria analysis across different MSP steps
- vulnerability assessment to understand the ability of natural systems to recover from pressures
- scenario development also as a phase of the planning process, also integrated with cumulative impact assessment and other tools to understand the impacts of planning alternative
- GIS tools can develop and communicate different scenarios to stakeholders (in communication, it should be noted that these are only representations of models and include different levels of uncertainties)

⁷ This was a change from the original plan for two sets of two parallel breakout groups. The change was necessary as the web platform, GoToWebinar, was not able to handle breakout groups.

- cumulative impacts/effects assessment, also as a method to monitor ecosystems in the implementation of MSP
- methods to combine ecosystem services assessment and their valuation
- The use of valuation methods more generally (i.e. not only in relation to ecosystem services) and methods for social analysis

The discussion also highlighted the value of presenting **interlinkages and synergies among the tools**, to explain how different tools can be connected and combined.

The second part of the discussion reviewed the draft template for tools, shown in GerJan's slides. He asked if a section on "**Monitoring of progress** toward more ecosystem-based applications" should be added. In the discussion, this suggestion was confirmed, and the approach set out in the slide was considered useful, but several participants said that the use (or implication) of levels should be avoided, as this was deemed too prescriptive.

In this discussion, participants also pointed out that **the holistic dimension of EBA** is something new. Its implementation builds on prior environmental assessments, which in turn depended on the data flows available, such as those from the implementation of existing environmental legislation. In all this, countries have different stages of departure, and this should be considered when assessing their implementation of EBA in MSP.

In addition, when assessing EBA in MSP, it should be noted that the implementation and its effect on ecosystems is the key thing to consider. When looking at the planning stage, the uncertainties at the time and the assumptions made need to be considered.

Stakeholder involvement

Pierre Strosser, Sarah Loudin and Camille Parrod of ACTeon in the project team led this session.

In the discussion, participants noted that **stakeholder involvement** in EBA will be part of the stakeholder involvement approach decided for MSP overall. Moreover, the institution in charge of MSP will end up shaping the stakeholder process.

Philipp Arndt noted that the implementation of MSP in Germany's economic exclusion zone (EEZ) has included the following: (a) establishing direct contact with neighbouring countries for sharing diagnoses related to ecosystems; (b) stakeholder consultation, and ensuring traceability in how comments influence decisions; (c) making explicit where MSP supports the achievement of the MSFD's objectives for good ecological status. BSH launched an English-speaking web page and blog to inform stakeholders and the public, including in neighbouring countries, on the MSP process (<https://wp.bsh.de/en/>). The blog platform also serves to document the evolution of the process.

Pierre said that one issue was whether different processes – such as the Marine Strategy Framework Directive (MSFD), MSP and other legislative frameworks – should have a common timeframe for their implementation cycle, both to strengthen stakeholder involvement as well as supporting synergies on monitoring, assessment and planning. It was noted that this was discussed within Pan Baltic Scope (and the inclusion of the Water Framework Directive was also considered valuable as freshwater inputs to the sea are a major source of pollutant loads).

Solutions that strengthen EBA in MSP need to consider **the institutional context**, and in particular which authorities are in charge of the MSP implementation and which need to be consulted. This varies across countries (for example, key authorities can include ministries of finance, of infrastructure, of environment and others). The **spatial/administrative level** at which MSP is developed must be considered, as this influences the approach to stakeholder involvement.

The role of other EU Legislation

Tony Zamparutti of Milieu introduced this session, explaining that integration with other key EU legislation is a valuable step in terms of integrating EBA with MSP.

Tony noted that data collected and reported under the **MSFD** can be valuable for EBA; however, one issue coming out of the literature review is a concern that this data is often presented at a broad scale, limiting its value for the more detailed geographical work of MSP. In the discussion, it was recognised that this is an issue, but participants also noted that monitoring for the MSFD gathers more detailed data than what is reported.

The discussion also highlighted the value of linking to **the MAES process** under the EU Biodiversity Strategy, which gathers data on ecosystem services, though the latter is usually focused on the national scale. Data from the **Common Fisheries Policy (CFP)** was also highlighted as valuable, as this will include more data than the CFP data considered under the MSFD.

It was also highlighted that the MSFD's objectives are important for MSP: these goals, as well as those of related Directives such as the *WFD*, need to be integrated into planning.

Concerning the **Birds and Habitats Directives**, participants noted that the Bonn Convention on Migratory Species can also be relevant (for example when assessing development of wind farms and other renewable energy projects). It was also noted that the analysis should go beyond individual marine protected areas (MPAs), such as those in the Natura 2000 network, to consider networks of MPAs as well as marine green infrastructure, a topic being studied in the Baltic Sea.

The **Strategic Environmental Assessment (SEA) Directive** provides a valuable tool for integrating EBA in MSP processes: one comment is that SEA can ensure that all appropriate objectives for ecosystems are considered, including those the UN Sustainable Development Goals (SDGs) and the objectives of the Convention on Biological Diversity. It can support the integration of EBA into MSP.

Communication is valuable in a transboundary context: for example, the draft SEA reports for Germany's EEZ MSP will soon be released in English translations. One issue for SEA within a Member State is that it can involve different institutions, and these will need to coordinate their work.

The participants noted that, more generally, a range of authorities may be responsible for different issues in the work to integrate EBA in MSP. Among the example: in Germany, MSP in territorial waters is integrated with coastal zone planning and carried out at regional (Länder) level, but MSP for the EEZ is done at the federal level; in Italy, the Ministry of the Environment is in charge of implementing the MSFD while the Ministry of the Transport is the authority in charge of MSP. Consequently, it would be useful to identify mechanisms (such as working groups, committees and common assessments) that are in place for **strengthening cooperation** between MSP and a diversity of directives and processes.

Closing remarks

Tony Zamparutti of Milieu thanked the participants for their active involvement in the workshop. He explained that the study will continue into the first half of 2021, and it will include further workshops to discuss the draft results. The project team would like to **follow up** on an individual basis with workshop participants on specific issues that have been discussed and would also like to invite them to **future project workshops**.

Appendix 2.1. Workshop participants

First Name	Last Name	Organization	Job Title	Country
MSP practitioners and experts				
Andrej	Abramic	ECOQUA@ULPGC	researcher, project coordi- nator	Spain
Joseph Kofi	Ansong	Ulster University; IOC -UNESCO MSPglobal International Expert	Researcher	Ireland
Philipp	Arndt	Federal Maritime and Hydro- graphic Agency (BSH)	Maritime Spa- tial Planner	Germany
Catarina	Frazaó-Santos	University of Lisbon	Researcher	Portugal
Elena	Gissi	Università Iuav, Venice	Researcher	Italy
Yaara	Grossmark	Technion	Ph.D. candi- date	Israel
Elisabetta	Manea	ISMAR CNR (National Research Council)	Researcher	Italy
Marina	Markovic	PAP/RAC (Coastal Centre, UNEP/MAP)	Programme officer	UN/Croatia
Vesna	Marohnić-Kuz- manović	Ministry of Physical Planning, Construction and State Assets		Croatia
Slavko	Mezek	Regional Development Centre, Koper	Senior pro- gramme man- ager	Slovenia
Alda	Nikodemusa	VASAB Secretariat	Head	
Aron	Westholm	University of Gothenburg	Doctoral can- didate	Sweden
European Commission				
Céline	Frank	European Commission, DG MARE	Policy officer	EU
JUAN	Ronco	European Commission, DG MARE	Policy officer	EU
Guido	Schwarz	European Commission, DG MARE	Policy Officer	EU
Project Team				
Guillermo	Gea	Milieu	Project expert	Belgium
Sarah	Loudin	ACTeon	Project expert	France
Tanya	Milkova	Fresh Thoughts	Case study lead	Bulgaria
Camille	Parrod	ACTeon	Project expert	France
Gerjan	Piet	Wageningen Research	Task Lead	Nether- lands
Anda	Ruskule	Baltic Environmental Forum	Case study lead	Latvia
Pierre	Strosser	ACTeon	Task Lead	France

Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning:
Project Final Report

Kristina	Veidemane	Baltic Environmental Forum	Case study lead	Latvia
Tony	Zamparutti	Milieu Consulting	Project manager	Belgium

Appendix 2.2. Screen shot of the discussions

Figure: screen shot of a moment in the online workshop discussions (not all participants shown)



Appendix 2.3. Slides presented during the workshop

Appendix 2.3.1 Slides for the opening session

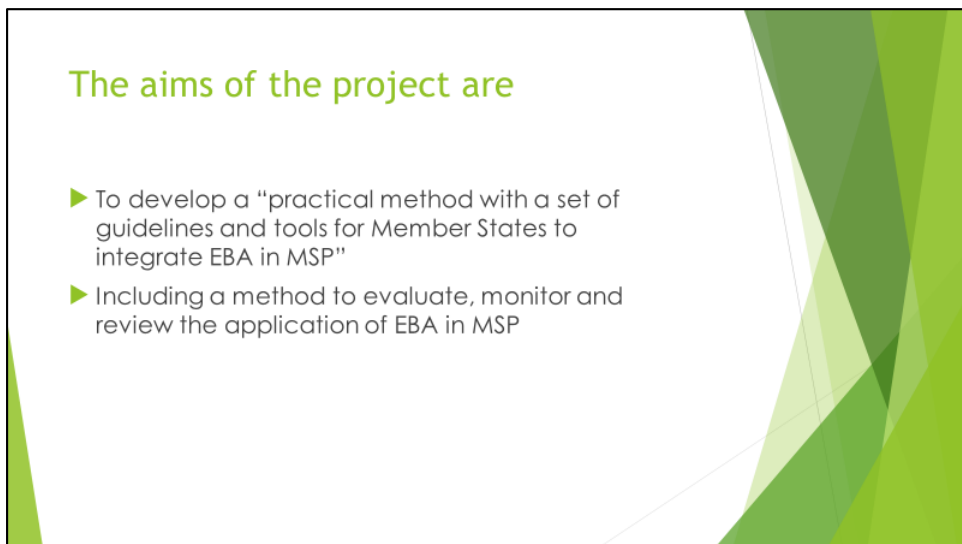


The slide features a white background with green geometric patterns on the left and right sides. The main title is in a large, green, sans-serif font. Below the title, the subtitle and date are in a smaller, green, sans-serif font. At the bottom, there is a row of logos for the participating organizations.

Integrating an ecosystem-based approach into maritime spatial planning

Developing a practical method to provide guidance: An interactive, online workshop
4 November 2020

milieu
ACTeon environment research & consultancy
BEF
WAGENINGEN UR For quality of life
Fresh Thoughts Consulting where science meets policy
GRID ARKDAL A Centre Collaborating with UNEP



The slide has a white background with green geometric patterns on the right side. The title is in a green, sans-serif font. Below the title, there are two bullet points, each preceded by a green right-pointing triangle.

The aims of the project are

- ▶ To develop a "practical method with a set of guidelines and tools for Member States to integrate EBA in MSP"
- ▶ Including a method to evaluate, monitor and review the application of EBA in MSP

We have five project tasks

1. Baseline review (literature review)
- 2. Analysis of the baseline information**
- 3. Developing a practical method providing guidance**
4. Case studies
5. Closing workshop

We plan to consider EBA across five MSP “stages”

- ▶ Defining (scoping/characterising the system and key issues)
- ▶ Developing (understanding the system and challenges for EBA in MSP)
- ▶ Assessing (weighing options and actions)
- ▶ Implementing
- ▶ Follow-up (monitoring, review/evaluation)



Five case studies will provide input

- ▶ Baltic Sea (and Latvia)
- ▶ Black Sea
- ▶ Mediterranean – use of valuation techniques for ecosystem services
- ▶ Netherlands
- ▶ Outside the EU: Massachusetts in the US

Our timeline

- ▶ Late January 2021: draft case study results
- ▶ Late February 2021: draft final report
- ▶ Late April 2021: final workshop with an expert peer review
- ▶ Late May 2021: final report



The role of this workshop

A small, interactive discussion with planners and practitioners working on MSP to

- ▶ Share the main challenges and difficulties when implementing the ecosystems based approach
- ▶ Share potential solutions and opportunities
- ▶ Identify key elements for a practical method that provides guidance
- ▶ Present a road map for developing the practical method and identify participants who can continue guiding the process

Our agenda today

Morning

- ▶ 10-10.20 Introduction and setting the scene
- ▶ 10.20 – 11.00 Key features for integrating EBA into MSP
- ▶ 11.00 – 11.50 Practical aspects for the development of further guidance
- ▶ 11.50 – 12.00 Close of the morning session

Afternoon

- ▶ 14.00 – 14.05 Presentation of the afternoon agenda
- ▶ 14.05 – 14.45 First set of breakout sessions
- ▶ 14.45 – 15.25 Second set of breakout sessions
- ▶ 15.25 – 15.50 Plenary: outcome of the breakouts
- ▶ 15.50 – 16.00 Closing and next steps

Appendix 2.3.2 Slides for the discussion on the needs and challenges for guidance

Integrating an ecosystem-based approach into maritime spatial planning

Key features for integrating EBA into MSP

Pierre Strosser, ACTeon
4 November 2020



The slide features a green and white geometric background. At the bottom, there are six logos: 'milieu' (green square), 'ACTeon' (stylized 'A' with 'environment research & consultancy' below), 'BEF' (red bird icon with 'Bioscience Ecosystems for Food Security' and 'LATWA' below), 'WAGENINGEN UR' (blue square with 'For quality of life' below), 'Fresh Thoughts Consulting' (yellow and blue logo with 'with science-based policy' below), and 'GRID ARENDAL' (blue and white logo with 'A Centre Collaborating with ENTP' below).

Three questions to guide us in this session

- ▶ What are the **main challenges** you face when integrating EBA into MSP?
- ▶ Which **good practices** have you identified for applying EBA and MSP? Which methods, tools, innovations and experiences would you recommend to other practitioners?
- ▶ What **pre-conditions** are key for supporting an effective integration of EBA in MSP?

What emerged from the literature?

- ▶ **In general**
 - ▶ EBA gives more holistic picture on marine ecosystem, interlinks between its elements and greater stakeholder involvement.
 - ▶ However, several key principles of EBA have been established before/do exist without EBA. It is not easy to distinguish between what is MSP application and what is EBA
 - ▶ Few MSP processes carry out detailed assessments to integrate EBA in MSP. Most plans will state that an ecosystem approach, or similar, is being followed, but this tends to be understood as a broad principle rather than a clear method/limited operationalisation.

What emerged from the literature?

- ▶ On the understanding of the **ecological functioning** of marine ecosystems
 - ▶ EBA has become an integral part of MSP in the Baltic Sea Region thanks to transboundary cooperation projects and HELCOM-VASAB coordination. Integrated assessment of ecosystem conditions, cumulative impact assessment and designation of green infrastructure areas are good practice examples in line with EBA principles.
 - ▶ The main challenges are related to the availability of high-resolution spatial data on ecosystem condition and knowledge on its interactions with human pressures and ecosystem service supply.

What emerged from the literature?

- ▶ On methods for capturing the **social and economic dimensions of marine ecosystems**
 - ▶ Few examples of application of CBA within MSP. Challenges are faced with the wide-range of complex issues addressed in MSP, limiting valuation of all possible costs and benefits. CBA may be best used for studies of discrete elements of plans (e.g. renewable energy initiative).
 - ▶ A few “hybrid” methodologies are tested through research projects seeking to help decision-making, e.g. Spatial Economic Benefit Analysis, (participative) Multi-Criteria Decision Analysis (MCDA).
 - ▶ Role of mapping of marine ecosystem services, integration of MAES in EIA & MSP processes, spatial marine zoning (separating incompatible human activities), willingness-to-pay for environmental goods (contingent valuation), “AquaSpacetool” interactive internet tool with GIS... are example of methods and approaches. Rare however are studies of ecosystem services that consider services and their beneficiaries that are located beyond “initial MSP boundaries”
- ▶ **Adaptative management** is almost inexistant

What emerged from the literature?

- ▶ On the **organisation of the MSP process**
 - ▶ Stakeholder mobilization is often assimilated to consultation through meetings and workshops. In many cases, however, stakeholders mobilized remain from the “administrative boundaries” of the planning area.
 - ▶ In terms of international cooperation, interesting examples can be found in the Baltic (HELCOM's workshops) or Black Sea (involvement of non-EU Black Sea countries in the project Advisory Board of the MARSPLAN project).
 - ▶ Stakeholder knowledge is often collected through meetings or workshops, but there is no evidence on how the information is integrated into MSP.
 - ▶ Scientists are often involved in MSP project via workshops and committees but with limited “inter/transdisciplinarity” (e.g. involvement of social scientists). Interesting example include: the involvement of economists & biologists together with fishermen in local governance groups of the FISHMPABLUE approach (Spain) or the scientific committee of the Calanque natural park (France) that is half composed of human sciences researchers

What emerged from the literature?

- ▶ On the opportunities offered by existing EU legislation:
 - ▶ There are many opportunities... if duly seized.
 - ▶ The MSFD provides an integrated knowledge framework for the marine environment, so reporting under MSFD Art. 8 can provide a starting point for integrating EBA into MSP - and for monitoring and assessing trends. However, MSFD data is generally provided only at a broad scale. Furthermore, the decision to choose ecosystem service-based approaches for the Economic & Social Analysis facilitates bringing EBA in MSP.
 - ▶ The Programmes of Measures under the MSFD (and under the WFD) and maritime spatial plans could be linked to facilitate their coherence.
 - ▶ Marine protected areas (MPAs) should be incorporated into maritime spatial plans. Reporting under the Birds and Habitats Directives can provide data on MPAs in the Natura 2000 network and their status - however, EBA needs to consider overall ecosystem conditions beyond MPAs.
 - ▶ Data collected under the Water Framework Directive can provide information on the status of coastal and transitional waters and on pressures affecting them.
 - ▶ Strategic Environmental Assessment (SEA) will review environmental impacts of maritime spatial plans, including their impacts on ecosystems - SEA can provide a key process to support the integration of EBA into MSP, if it is coordinated effectively with planning

Appendix 2.3.3 Slides for the afternoon working sessions

First working session: assessment methods and tools

Ecosystem Approach in MSP

- ▶ There is no conventional MSP and then we do the magic and we have EA-MSP
- ▶ We will present a path towards increasingly more EA in MSP which would (should?) then result in an improved MSP process
- ▶ This will not be a fixed one-size fits all approach for EA-MSP but rather a presentation of potential EA elements
- ▶ Ecosystem Approach and Ecosystem-based Management principles are the basis to make the transition toward more EA-EBM (applying EA elements). These have been the basis to select practical methods and Tools

Assessment Methods & Tools

- ▶ Mental/Conceptual models (of the social-ecological system)
 - ▶ Cumulative Effects Assessment
 - ▶ Assessment of Ecosystem services
 - ▶ Valuation Techniques
 - ▶ Assessment of (marine) Green infrastructure
 - ▶ Multi-Criteria Analysis
 - ▶ Cost-effectiveness and Cost-benefit analysis
 - ▶ Pathway analysis
- Are any methods or tools relevant for EA-MSP missing?
 - Where to apply in the MSP process?
 - Defining
 - Developing
 - Assessing
 - Implementing
 - Follow-up

Template description Methods/Tools

- ▶ Name (Common name/names of method/tool):
 - ▶ Purpose (What does the method/tool aim to achieve?):
 - ▶ Outcome (What information does the method/tool provide?):
 - ▶ Applicability (When and where can the method/tool be applied?):
 - ▶ Operationalization (How does the method/tool work?):
 - ▶ Monitoring of progress toward more ecosystem-based applications:
 - ▶ Levels of increasing progress towards more EA
 - ▶ Needs (What resources are required for applying the method?):
 - ▶ Time, Data, Costs, Skills,
 - ▶ Pros and cons (What are the strengths and challenges of the method/tool?):
 - ▶ Considerations (What issues should be considered when using the method/tool?):
 - ▶ Further information (Any particular website or case study that is useful?):
 - ▶ References:
- Any relevant topics missing?
 - What information do you consider important?
 - Other suggestions?

Monitoring of progress toward more EA-MSP Cumulative Effects/Impacts Assessment (CEA/CIA)

1. CEA/CIA is not considered
2. It may occur that the MSP process claims that cumulative effects were considered despite that only a single sector is considered
3. Only part of the sectors, pressures or ecosystem components deemed relevant according to the mental model are considered.
4. Quality of the CEA/CIA is determined by the available information. Sub-level improvements as the knowledge base improves from qualitative to semi-quantitative to fully quantitative.
 - Useful aspect to capture?
 - Stepwise characterisation?
5. An extension of CEA/CIA that also includes (the supply of) ecosystem services
6. Full social-ecological system is considered: Cumulative impacts on human well-being are also assessed

Reporting from breakout groups Topic: Assessment Methods & Tools

- ▶ Links between the methods-tools are relevant
 - ▶ Ecosystem services assessment and valuation techniques
 - ▶ Mental/Conceptual model and CEA
- ▶ Guidance to monitor progress is useful but should not be a rating. Treat the criteria as levers
- ▶ Explain methods clearly to avoid confusion, e.g. vulnerability aspect in CEA/CIA
- ▶ Effect of extraneous drivers (e.g. climate) on the methods/tools
- ▶ Scenario development as a tool? Or rather as part of the process?

Second working session: organising the process – mobilising stakeholders and knowledge

Integrating an ecosystem-based approach into maritime spatial planning

Organising the MSP process

Sarah Loudin & Camille Parrod, ACTeon
4 November 2020



Two issues to look at

- ▶ **Stakeholder mobilization:** who should be involved? At which stage of the MSP process? With which role? How?
- ▶ **Knowledge-policy interface:** Which interdisciplinarity? Through which mechanisms is knowledge collected/used/updated to support decisions?

Key issues relevant to EBA in MSP

► List issues

Stakeholder involvement	Scientific/non-scientific knowledge-decision interface
Which scale of involvement for stakeholders? Sea-land interface? Admin./ecological scale?	Is there scientific interdisciplinarity (eg integration of social sciences)?
Which tools for SI are used?	Through which means is scientific & non-scientific knowledge mobilised? Integrated to MSP? Updated? (eg. workshops, scientific or mixed committees...)?
What is the goal of SI? Information, consultation, co-decision-making, other?	How does knowledge support decision-making (eg. share of space, management rules...)?
Is it top-down or bottom-up?	
When are stakeholders/researchers involved? At which stage of the MSP process?	

Stakeholder involvement (scale of involvement)
In the SIMNORAT project (OSPAR/Bay of Biscay/Iberian coast – P/SP/FR), invitation of UK stakeholders to attend the restitution meeting

Stakeholder involvement (tool)
In the MARSPLAN-BS project (Black sea), use of a participatory mapping method to consult stakeholders

Knowledge-decision interface
In the FISHMPABLUE project (Mediterranean sea), involvement of economists & biologists together with fishermen in local governance groups

Your views and contributions (national & project-level)

Better link MSFD & MSP processes (incl. Timelines) - strengthen place of ecology in MSP

Better link land (WFD) & sea (MSFD, MSP) policies

= small = solutions & ideas vs long term planning (communication?)

Defining the system and setting strategic goals

Understanding the system and its challenges

Assessing options & actions for addressing challenging

Implementing options & actions

Monitoring & evaluating

National: in the whole MSP process (how to integrate EBA?)

Consultation of sectors - show space is limited

workshops & national hearings + meetings w/ neighbors

Communicate - national news

Knowledge & data from sectors (incl. Fisheries)

Social-ecological interrelations, impacts of sea uses for more transparency in decisions taken

Dealing w/ eutrophication through multiple policies

Citizens?

Different countries / approaches / levels (regional vs national)

Links to policy framework

Stakeholder mobilisation

Knowledge-decision interface

Third working session: the role of other EU legislation

How can other EU legislation can support EBA in MSP?

- ▶ Maritime Strategy Framework Directive
- ▶ Birds and Habitats Directives
- ▶ Strategic Environmental Assessment Directive
- ▶ Common Fisheries Policy (CFP)
- ▶ Water Framework Directive (WFD)



Questions for discussion

- ▶ **MSFD**
 - ▶ Value of MSFD data for integrating EBA into MSP
 - ▶ Linking maritime spatial plans with MSFD programmes of measures
- ▶ The **Birds and Habitats Directives**
 - ▶ Value of data collected for these Directives
 - ▶ Protecting species and habitats outside Natura 2000 areas
- ▶ **Strategic Environmental Assessment Directive**
 - ▶ How can SEA be effective in supporting the integration of EBA into MSP
- ▶ Using MSFD, Nature Directives and SEA results to monitor and assess EBA in MSP

Appendix 2.3.4 Closing slides

Next steps for the project

- ▶ Now through the end of the year:
 - ▶ information gathering and workshops for the case studies
 - ▶ We look forward to inputs via the case studies
- ▶ Through January 2020: preparing a draft of the guidance
 - ▶ We would like to continue contacts with participants in this process
- ▶ A larger workshop in early February 2021 to review the results of the case studies and their implications for the guidance
- ▶ Further refinement of the guidance based on the workshop results
- ▶ A final, review workshop in late April 2021

Thank you

Thank you!
Please send any emails to:

tony.zamparutti@milieu.be

guillermo.gea@milieu.be

ANNEX 3: Summary of the March 2021 workshop

Summary of the project workshop on Developing a practical method and toolbox

25 March 2021

Overview

EASME (the Executive Agency for Small and Medium-Size Enterprises), on behalf of DG MARE of the European Commission, has established a service contract for this **study on the concrete application of EBA in MSP**. The main objective is to assess the state of play in the practical application of EBA in MSP and to develop **a practical method and toolbox** that can support the application, monitoring and evaluation of EBA in MSP.

The participants at this workshop provided an early review of key elements of the study's work on the practical method and toolbox. In particular, they were invited to provide input in the following three areas:

- Does the draft practical method and toolbox address **the main challenges** to make EBA in MSP a reality? If not, which ones should receive further attention in the practical method and toolbox?
- Are the elements and information presented in a sufficiently **operational way** to guide MSP experts to do it in practice?
- Are the practical method and toolbox presented in the **right format** – and if not, what should be changed to make it more readily accessible and understandable?

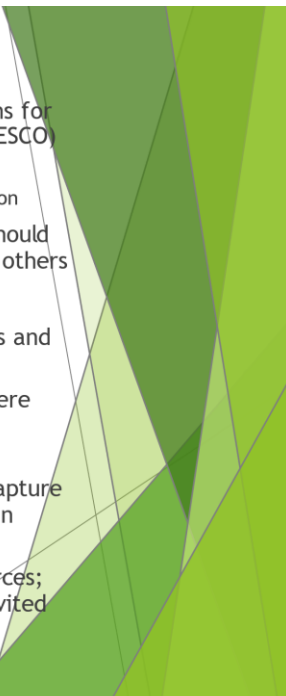
The list of participants is provided below in Appendix 3.1.

Session 1. 09.00-09.40 Introduction and presentation of the draft practical method

Céline Frank of the European Commission (DG Maritime Affairs and Fisheries, DG MARE) opened the workshop with a presentation of the rationale and background for the study (please see her slides in Appendix 3.2).

Tony Zamparutti of Milieu Consulting presented a brief description of the study and an overview of the workshop agenda; Gerjan Piet of Wageningen Research then introduced the practical method (please see Appendix 3.3 for their slides).

Following their presentations, participants were asked for their initial comments and reactions. The following slide presents a summary of key topics that participants proposed to be added to the guidance: these included addressing climate change, the cultural value of the sea for communities, and giving greater attention to stakeholder engagement.

- 
- ▶ No mention of sustainability strategies (e.g. national strategies)
 - ▶ No reference to climate (adaptation/mitigation strategies)
 - ▶ Human part/dimension missing - socio-economic activities/sectors - values and visions for policy-makers to drive a plan - societies and communities that value the sea (cf. UNESCO) - also a heritage of humankind (UNCLOS)
 - ▶ Clarification: UNCLOS Part 11 on common heritage doesn't cover areas in national jurisdiction
 - ▶ The trade-off question is important and is not narrated enough in the draft, which should describe how to prioritise uses and how to prioritise certain ecosystem services over others
 - ▶ Going beyond borders: uses in boundary areas needs to be considered
 - ▶ The use of tools - for biologically significant areas, based on engagement of scientists and country representatives - is valuable, also across boundaries and needs to be added
 - ▶ Stakeholder engagement in MSP should be better covered - in the Mediterranean, there has been little re-engagement of stakeholders (once MSP is in place), especially local livelihood representatives
 - ▶ Missing tools include: seascape character assessment (used in Sweden, for e.g.) to capture interactions between communities and the seascape; also ecosystem services (used in Scotland)
 - ▶ For stakeholder engagement greater focus would be useful, including: getting resources; and ensuring time and skills (these are not always there). WWF has been involved/invited in only two MSP processes in the Med - often there is little follow-up to individual workshops.

The project team provided some initial reactions, Gerjan Piet said that climate change would be addressed in the next draft of the practical method; however, since we did not find much practical examples of EBA approaches or MSP projects that dealt with this, we cannot do more than mention where it should be considered. On stakeholder engagement, Pierre Strosser noted that EBA principles call for extensive stakeholder engagement, and the practical method will explain that EBA goes beyond the requirements in EU legislation.

Breakout sessions: 09.40 - 11.00

The participants were divided into three breakout sessions. These covered the following three topics:

- A checklist for EBA in the stepwise MSP process
- Assessment methods and tools
- EU regulatory framework and monitoring and reviewing EBA in MSP

Summaries of the discussions in the three breakout sessions were presented in the plenary session that followed.

Breakout session: Checklist for EBA

Anda Ruskule of the Baltic Environmental Forum presented slides to summarise the main points from this session, which focused on section 4 of the draft practical method. The slides covered all five MSP steps used in the draft practical method: 1) defining, 2) developing, 3) assessing, 4) implementing and 5) follow-up. All but the fourth step, implementing, were discussed in detail and the feedback is given in the following slides.

Feedback from the group - DEFINING

- ✓ Issue of boundaries is one of the most complex - this can refer to convention areas, ecological boundaries, species migration, climate uncertainties etc.
- ✓ Ecological boundaries do not correspond to legal boundaries. How to address this and are there procedures to review if all impacts considered - adaptive management
- ✓ Boundary issue very fuzzy. We are still not there. Boundaries need to be as far as possible clarified
- ✓ Defining the boundaries should related to principles (ecological sensitivity) - boundaries should be defined at the starting of the process and then to be considered for defining the goals

Feedback from the group - DEVELOPING

- ✓ Most of the issues very well covered
- ✓ High degree of overlap of what member states do under the MSFD. Consistency should be ensured.
- ✓ The links directly to MSFD are not sufficiently addressed in checklist (e.g. links to the targets of MSFD, GES)
- ✓ Taking nature as a point of departure for MSP
- ✓ There is a fragmentation in applications of different EU strategies. MSP should be based on what is really ecologically sound and comparable. MSFD & WFD good starting point.

Feedback from the group - ASSESSING

- ✓ Core of EBA is conservation and sustainable use. It has **environmental/ecological base**, but a holistic scope
- ✓ MSP involves decision making process on what to put emphasis
- ✓ By applying ecosystem service approach, you can see synergies, not so much conflicts between sectors
- ✓ But there is always a conflictual aspect, priorities depends on the role of state, proper consideration should be taken of the three dimensions
- ✓ Ecological considerations should be in the hart of the process, sectoral activities addressed through sensitivity perspective



In the discussions of especially the *Assessing* step, the point was made that in order to be EBA-MSP the environmental pillar (as opposed to the social or economic pillars) of sustainability should take precedence. Gerjan Piet answered that as an ecologist he'd be inclined to support this but at least in interdisciplinary science this is still an ongoing discussion.

Breakout session: Assessment methods and tools

This session focused on the use of tools to support EBA in MSP (these are discussed in section 4 of the practical method and a pilot factsheet is provided in Annex V of the document⁸). The session used an online whiteboard platform (Miro) to gather comments. Louise Lieberknecht of GRID-Arendal presented the results. Participants wrote virtual post-its to answer the following four questions:

- Does the guidance cover all relevant methods and tools to support EBA in MSP?
- Is the guidance practical?
- Is the presentation format right?
- Is there sufficient given to transversal issues.

The results are provided on the following page. As Louise explained (and as can be seen in the image), there were relatively few comments on the third question. Moreover, several comments touched on a cross-cutting theme, the preconditions for good application of tools.

⁸ While the pilot factsheet was provided in Annex V of the draft for the March 2021 workshop, the factsheets are presented in Annex I of the final version.

Breakout session: EU regulatory framework and monitoring and reviewing EBA in MSP

This session sought to cover sections of the practical guidance, the EU regulatory framework (section 3) and the method for monitoring and reviewing EBA in MSP (section 5). Discussion focused, however, on the first topic. Guillermo Gea of Milieu Consulting highlighted the key results, which were summarised (after the meeting) in the following slide:



Breakout session 3: Regulatory Framework and Review and evaluation of EBA in MSP

- ▶ **Broadening the scope:** the guidance should further reflect the role of EU Strategies and international conventions in MSP, which serve as general orientation for the development of the plans. These should include:
 - ▶ The EU policy framework beyond MSFD-WFD-BHD-CFP (e.g. Green Deal: Biodiversity and Plastics Strategies, Climate Action; Integrated Maritime Policy)
 - ▶ International conventions and agreements (e.g. Convention on Biological Diversity, Aarhus Convention, UN Agenda sustainable development 2030)
- ▶ Advice should avoid focusing exclusively on addressing the legal framework, but should also include the views of the local population, reflecting aspects like the **cultural and personal value** of the sea
- ▶ SEA offers an **additional opportunity for strengthening stakeholder engagement** and also for producing planning alternatives which improve the quality and impact of mitigation measures
 - ▶ The guidance needs to provide a closer focus on how to improve this from a practical perspective
- ▶ **Data availability** still appears as one of the main outstanding issues
 - ▶ The lack of sufficient information hinders the definition of an environmental baseline for many ecosystem elements
 - ▶ Official (e.g. government agencies) and non-official (e.g. research institutes) data sources are given different consideration by some MSP authorities. Additional efforts in data harmonization and integration would substantially improve the available evidence on ecosystem features
 - ▶ The different Regional Sea Conventions play a key role for overcoming the impacts of data scarcity in the planning process by strengthening cross-border coordination and data-sharing

Closing plenary session: 11.00 – 11.15

Tony Zamparutti thanked the participants and told them that they were welcome to send written comments on the guidance: he asked that any comments be sent to the project team by Monday, 12 April (COB).

Comments can be sent to the main project email – EBAMSP@milieu.be – or to any of the members of the project team (see the final slide in Appendix 3.4).

Appendix 3.1. Workshop participants

First Name	Last Name	Organization	Country
MSP practitioners and experts			
Dania	Abdul Malak	European Topic Centre on Spatial Analysis and Synthesis (ETC-UMA)	Spain
Edgar	Afonso	DGRM	Portugal
Joseph Kofi	Ansong	Ulster University	United Kingdom
Andrea	Barbanti	CNR-ISMAR	Italy
Daniele	Brigolin	Università IUAV di Venezia	Italia
Cristina	Cervera Núñez	Instituto Español de Oceanografía (IEO)	Spain
Dayana	Dencheva		
Nadezhda	Drumeva	BSBD	Bulgaria
Patrycja	Enet	European MSP Platform	France
Bogdan	Ghinea	Ministry of Development, Public Works and Administration	Romania
Elena	Gissi	ISMAR CNR	Italy
Elisabetta	Manea	ISMAR CNR	Italy
Marina	Markovic	PAP/RAC	Croatia
Vesna	Marohnić-Kuzmanović	Ministry of Physical Planning, Construction and State Assets	Croatia
Mihaela	Mirea	Mare Nostrum	Romania
Leila	Neimane	University of Latvia	Latvia
Anne Marie	O'Hagan	MaREI, UCC	Ireland
Louise	Quinio	University of Nantes	France
Adriano	Quintela	University of Aveiro	Portugal
Mauro	Randone	WWF	Italy
Jan	Schmidtbauer Crona	Havochvatten (Swedish Agency for Marine and Water Management)	Sweden
Aida	Silva	DRAM Azores Regional Government	Portugal
Thanos	Smanis	CLIMAZUL	Greece
Lisa	Sousa	CESAM & Universidade de Aveiro	Portugal
Arnaud	Terrisse	Plan Bleu	France
Maria	Troya	MaREI CC	Ireland
Nikolay	Valchev	Institute of oceanology-BAS and AM to MSP Platform	Bulgaria
Aron	Westholm	University of Gothenburg	Sweden
European Commission			
John	Brincat	DG MARE	EU

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First Name	Last Name	Organization	Country
Alice	Clark	DG MARE	EU
Anja	Detant	EASME	EU
Céline	Frank	DG MARE	EU
Marijana	Mance	DG Environment	EU
Renee	Melkert	DG MARE	EU
Study Team			
Guillermo	Gea	Milieu	Belgium
Sarah	Loudin	ACTeon	France
Tanya	Milkova	Fresh Thoughts	Bulgaria
Gerjan	Piet	Wageningen Research	Netherlands
Anda	Ruskule	Baltic Environmental Forum	Latvia
Pierre	Strosser	ACTeon	France
Kristina	Veidemane	Baltic Environmental Forum	Latvia
Tony	Zamparutti	Milieu Consulting	Belgium

Appendix 3.2. Presentation by Céline Frank, DG MARE





**MSPD/MSFD
policy interlinkages**

- **Art. 13 of MSFD** : Member States must ensure that all activities “enable the integrity, structure and functioning of ecosystems to be maintained or, where appropriate, restored”
- **Annex 6 of MSFD (PoM)**
 - **Input controls**: measures that influence the amount of a human activity
 - **Spatial (and temporal) distribution controls**: measures that influence where and when an activity is allowed to occur
 - **Management coordination measures**

Poster: Progression of resources



**MSPD/MSFD/WFD
policy interlinkages**

- Common objective = **GES**
- Criteria for **GES** (Decision 2010/477/EU): **Assessment of the scale, distribution and intensity of pressures + mapping:**
 - allows the identification of areas where marine ecosystems have or may be adversely affected
 - facilitates the development of *specific tools that can support an ecosystem-based approach* required to achieve good environmental status

GES = Good environmental status



**Other relevant legislations
for EBA and MSP**

- **Water Framework Directive**
- **Common Fisheries Policy**
- **Birds and Habitats Directives**
- **Environmental Impact Assessment (EIA) Directive**
- **Strategic Environmental Assessment (SEA) Directive**
- **INSPIRE Directive** (Infrastructure for Spatial Information in the European Community) → **EMODnet**
- **Biodiversity Strategy**
- **Offshore Renewable Energy Strategy**



Common methods and tools for EBA

- *Sensitivity/pressure maps*
- *Marine Green Infrastructure*
- *Ecosystem services assessment + valuation*
- *Cumulative Impact Assessment*
- *Scenario analysis - modelling*
- *EMODnet*



More background information at:

http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_en.htm

https://ec.europa.eu/environment/marine/eoast-and-marinepolicy/marinestrategy-framework-directive/index_en.htm

<http://msp-platform.eu/>

Contact: Celine.Frank@ec.europa.eu

European Commission, DG Maritime Affairs and Fisheries

Unit A2: Blue Economy Sectors, Aquaculture and Maritime Spatial Planning



Appendix 3.3. Slides presented in the opening session



Workshop on integrating the ecosystem-based approach in maritime spatial planning:
Developing a practical approach and toolbox

Workshop
25 March 2021

milieu ACTEON BEF WAGENINGEN UR Fresh Thoughts Consulting G·R·I·D



What is the overall aim of our project?

The study specifications state that:

- ▶ "The main objective is to propose feasible and practical approaches and guidelines for applying an EBA in MSP with the presently available information and a practical method or tool for evaluating, monitoring and review the application of EBA in MSP"
- ▶ To assist Member States and stakeholders implement the EU's MSP Directive (2014/89/EU) and in particular its call to apply an ecosystem-based approach (EBA) in maritime spatial planning (MSP)



How are we trying to achieve this?

- ▶ Via a document that provides "practical approaches and guidelines"
 - ▶ Clarifying EBA concepts and principles
 - ▶ Highlighting the links to the EU regulatory framework
 - ▶ Providing a stepwise practical approach
 - ▶ Describing potential tools for operationalising EBA in MSP
 - ▶ And including an approach to evaluate and review progress in integrating EBA in MSP
- ▶ While being clear and concise



A practical approach toward an Ecosystem-based Approach in Maritime Spatial Planning

Including a method for the evaluation, monitoring and review of EBA in MSP

The date: 2021-03-25

milieu ACTEON BEF WAGENINGEN UR Fresh Thoughts Consulting G·R·I·D

For whom?

The document is intended for:

- ▶ Officials preparing maritime spatial plans
- ▶ Experts and practitioners supporting their work
- ▶ Stakeholders involved in MSP

What isn't included:

- ▶ This won't be a technical manual for using EBA tools
- ▶ It isn't a cookbook for EBA in MSP (which is context-driven)

Our goal this morning...

- ▶ This workshop brings together officials, experts and stakeholders...
- ▶ To review the draft practical approach and tell us:
 - ▶ Are we addressing the main challenges to make EBA in MSP a reality?
 - ▶ If not, which ones should receive further attention in the practical approach and toolbox?
 - ▶ Are the elements and information presented in a sufficiently operational way to guide MSP experts to do it in practice?
 - ▶ Are we presenting it in the right format?

Our agenda

- ▶ Now: overview of the practical guide
- ▶ About 9.40: Move into breakout groups that focus on key issues for EBA in MSP
- ▶ At 11.00: return to the plenary for final exchange
- ▶ 11.15: End of the workshop

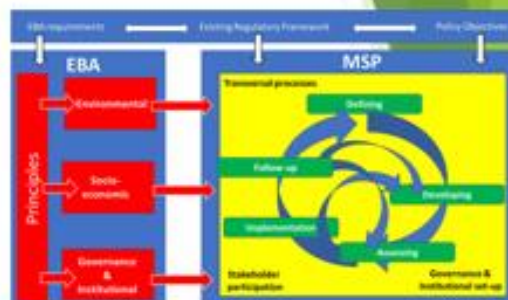
Our practical method: An introduction to the key elements

The outline of our approach

- ▶ Overview: what is applying EBA in MSP about? (Section 2 of our draft)
- ▶ How can the EU's regulatory framework support EBA in MSP? (Section 3)
- ▶ How to internalise EBA in MSP? A step-by-step approach (Section 4)
- ▶ How to monitor, evaluate and review the integration of EBA in MSP? (Section 5)
- ▶ Plus annexes, including -
 - ▶ Questions and checklists for evaluating EBA in MSP (Annexes III and IV)
 - ▶ Factsheets on EBA tools (Annex V presents a pilot version)

Overview (Section 2): Applying EBA in MSP - What is it about

- ▶ Why EBA is important for MSP: an introduction
- ▶ Main elements of the ecosystem-based approach
 - ▶ Capturing the functioning and dynamics of marine ecosystems
 - ▶ Incorporating human activities and socio-economic considerations, along with their interconnections with marine ecosystems
 - ▶ Organising the MSP process with regards to governance and management
- ▶ EBA and the MSP cycle
- ▶ The benefits of integrating EBA in MSP



The EU Regulatory Framework (Section 3)

Section 3 covers:

- ▶ Marine Strategy Framework Directive (MSFD)
 - ▶ Birds and Habitats Directives (with a reference to the EU Biodiversity Strategy)
 - ▶ Common Fisheries Policy
 - ▶ Strategic Environmental Assessment / Environmental Impact Assessment
 - ▶ *Next draft: also the Water Framework Directive*
- ▶ For each, it considers:
- ▶ What the legislation/policy brings for EBA in MSP
 - ▶ What key opportunities and challenges might be encountered
 - ▶ Including examples how challenges have been addressed

How to internalise EBA in MSP (Section 4)

For each of the five steps:

- ▶ The main topics for EBA in MSP
- ▶ Transversal processes (such as stakeholder engagement)
- ▶ A brief highlight on what the EU Regulatory Framework brings
- ▶ An EBA checklist

A summary of the tools in the EBA-MSP toolbox

- ▶ Factsheets are to be provided in the annex (Annex V provides a pilot factsheet)



How to monitor, evaluate and review the integration of EBA in MSP? (Section 5)

- ▶ Overview of key steps for monitoring and reviewing EBA in MSP (linked to the separate study on monitoring and revision of maritime spatial plans)
- ▶ Key issues for review and evaluation of EBA in MSP
 - ▶ Who carries out this work?
 - ▶ When should reviews and evaluations be carried out? (in light of adaptive management)
 - ▶ How to do this?

Appendix 3.4. Closing slides

Next steps

- ▶ Please send us your written comments by **12 April**
- ▶ Revision of the project reports and in particular the Practical Method
- ▶ Final workshop on the afternoon of **17 May**
- ▶ Final version for the end of May

Thank you from the study team

EBainMSP@milieu.be

Pierre Strosser	ACTeon	p.strosser@acteon-environment.eu
Sarah Loudin	ACTeon	s.loudin@acteon-environment.eu
Kristina Vedeimane	Baltic Environmental Forum	kristina.veidemane@bef.lv
Anda Ruskule	Baltic Environmental Forum	anda.ruskule@bef.lv
Tanya Milkova	Fresh Thoughts Consulting	tanya.g.milkova@gmail.com
Louise Lieberknecht	GRID Arendal	louise.lieberknecht@grida.no
Tony Zamparutti	Milieu Consulting	tony.zamparutti@milieu.be
Lise Oulès	Milieu Consulting	lise.oules@milieu.be
Guillermo Gea	Milieu Consulting	guillermo.gea@milieu.be
Gerjan Piet	Wageningen Research	gerjan.piet@wur.nl

ANNEX 4: Summary of the final workshop (May 2021)

Introduction

Anja Detant, from CINEA (the European Climate, Infrastructure and Environment Executive Agency), opened the workshop by welcoming all participants.

The workshop's objectives were to present the practical method and collect feedback and comments from the study's peer reviewers, as well as all workshop participants, so that the document could be refined prior to being published.

Tony Zamparutti, from Milieu Consulting, presented the meeting agenda:

13:00	Introduction Welcome – European Commission Introduction to the workshop (objectives, schedule, sessions) – project team
13:05	Presentation of the main elements of the practical method Project team
13:20	Peer review of the study Overview of the comments: peer review chair Additional comments by other peer reviewers Brief replies by the project team
14:20	Breakout groups 2-3 groups. Each group will focus on one key topic; the topics will be identified ahead of the workshop with the peer review chair Members of the project team will act as rapporteurs
15:20	Reporting back; key results from the breakout sessions
15:35	Closing comments Peer review chair Project team European Commission
15:45	Close

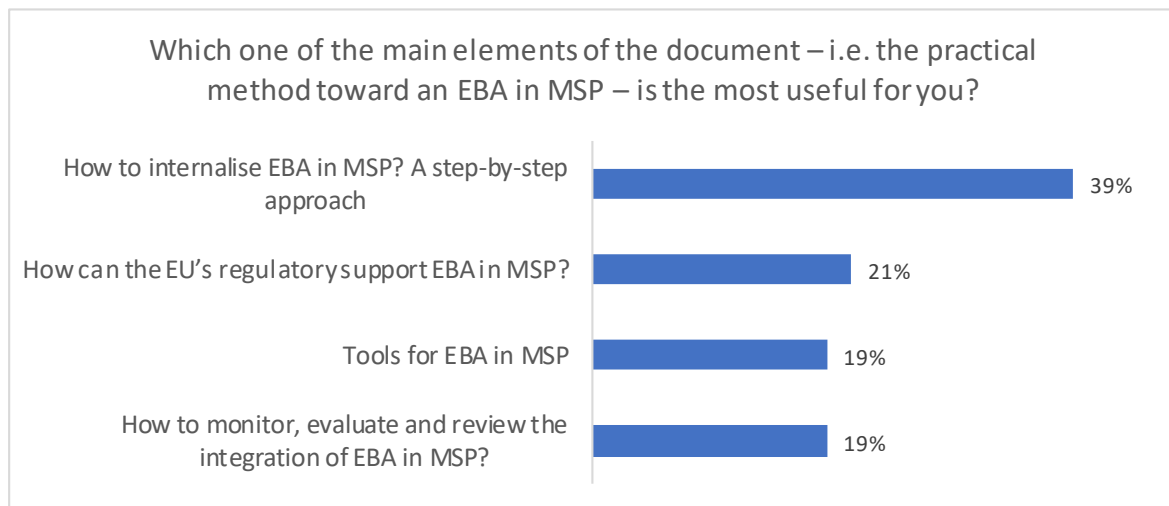
Presentation of the practical method

Tony Zamparutti, from Milieu Consulting, and Gerjan Piet, from WUR, presented an outline of the project, explaining the objectives and the different tasks implemented to feed into the development of the practical guidance, the main focus of the workshop. In addition to the practical guidance, the project team also prepared five case studies, covering a range of EBA topics (such as the assessment of marine green infrastructure, ecosystem valuation and cumulative impact assessment techniques) across the four European regional seas, plus one case study outside of Europe. Once published, these documents will be made publicly accessible at the European MSP Platform.

The presentation provided an overview of the main guidance document. It starts with the definition of the concept of an Ecosystem-based approach (EBA), the core principles involved, and how EBA fits in the steps that make up the cycle of a Maritime Spatial Plan (MSP). The technical guidance provides a step-by-step practical approach for implementing EBA in MSP. It also describes potential tools for operationalising EBA in this process, including guidance for evaluating the progress on the implementation of EBA. The guidance intends to provide advice to MSP practitioners across all stages of the planning cycle, including also non-state stakeholders involved in these processes. As the MSP development is highly determined by the social and environmental context, this

document should not be regarded as a cookbook for integrating EBA in MSP, nor as a technical manual for using the tools presented in different sections. Instead, it provides a general set of principles and implementation questions that can guide the practical application of EBA in MSP.

Following this presentation, a poll asked the audience about their interest on the different sections of the document (see the figure below): the greatest interest was on how to internalise EBA in the development of MSP. Other sections addressing support from the EU's regulatory framework, the presentation of specific tools, and how to monitor and evaluate the integration of EBA in MSP were chosen by about one-fifth of the audience.



Peer review of the study

Luc van Hoof, chair of the peer reviewers, complimented the team for their work and summarised the main comments from the group of Peer reviewers. The comments do not present a common view on the way forward for the finalisation of the study, but are rather wide-ranging and are a reflection of the different experiences, expertise and background of the reviewers. In the discussion, other peer reviewers – namely Michele Portman, Takehiro Nakamura, Tom Woolley, Massimiliano Mazzanti, Tatjana Hema and Jochen Lamp – provided further comments to this summary.

The main findings of the peer review, as presented at the workshop, are summarised in the following points:

- Use of the guidance: whilst the report was not conceived as an EBA-MSP cookbook, it might end up being used as such. This should be considered by the team when developing a final version, paying attention not only to the content, but also to its format to facilitate navigation in the different guidance sections.
- Format: the current division of the study in different chapters for each of the aspects considered in the EBA-MSP process is adequate and facilitates the application of its content in a practical exercise. Additional visual and formatting improvements could facilitate the use of the document and the extraction of key information from this

rather lengthy document. The reviewers mentioned the 2009 IOC-UNESCO guidance⁹ as a good example in terms of size and formatting, which has been widely used to provide guidance in the sector since its publication.

- Ecosystem services: the peer reviewers suggested strengthening the guidance with regards to the use of ecosystem services, improving the practical advice on the different actions that should be taken to develop this approach.
- Integration of ecological objectives in MSP: the reviewers considered that the guidance does not fully clarify how to integrate the existing ecological objectives (such as good environmental status, GES, as defined under the Marine Strategy Framework Directive, MSFD) as a building block of the Maritime Spatial Plan. Additional background on how this has been done in some of the Member States that already published their MSPs (e.g., France) could guide other countries in following the same path.
- Land-sea interactions: these are a key aspect of MSP development but not always sufficiently considered in the document. Further explanations and illustrations (e.g. the case of the Otranto Strait CAMP project that highlights how ICZM and MSP can best be combined) would be helpful as sources of inspiration.
- Regional coverage: the reviewers noted that practical illustrations were not balanced across the regional seas. Whilst this might be due to the scarcity of evidence and references in some areas, it could be improved. For examples that relate to the Mediterranean Sea, where several States are not EU Members, it may be relevant to consider the policies these countries apply including in relation to cross-border cooperation. Beyond making reference to decision-making processes, this regional dimension could also cover aspects such as education, environmental awareness, or financial capacities.
- Stakeholder engagement: the reviewers considered that the guidance could include additional information about how to engage other actors in these processes apart from bilateral cooperation. This could improve the participation of third parties and non-EU countries, as well as private stakeholders (e.g. businesses) or social and environmental non-governmental organisations, with the objective of increasing participation in the design and implementation of sustainable MSPs.
- Assessment and evaluation tools: whilst the guidance provides a set of tools, the conditions for their application are not sufficiently developed. It is not totally clear the criteria used to select them. Additional information on pre-conditions and resources/skills required to implement these tools would be helpful for people who might not be familiar with the tools but are interested to apply them.
- Use of language: words such as 'information', 'data' or 'knowledge' are not used consistently across the document. Including a glossary at the beginning of the document could help address this issue. This also affects the concept of EBA and the more general term 'sustainable' used in the text, sometimes in a not totally clear manner.
- Indicators and the quantification of environmental features: the guidance could be strengthened on how best to select indicators. These could include not only activity-based indicators (e.g., shipping traffic intensity) and their pressures, but also their environmental impacts.
- Visual communication: some sections could benefit from presenting the information through diagrams and other graphic solutions, shortening the text and providing material that could be easily shared in the future for further discussion or capacity-building efforts.

⁹ UNESCO, Marine spatial planning: A Step-by-Step Approach toward Ecosystem-based Management, 2009: <https://unesdoc.unesco.org/ark:/48223/pf0000186559>

- Conflicts on space sharing: the acknowledgement of the limitation of maritime space to cope simultaneously with all its potential functions could be strengthened in the guidance.
- Beyond the EU geographical area: it is likely that this guidance will be used by third countries beyond the European borders. Hence, the guidance could cover also global (international) policies and regulations that are relevant to non-EU countries, although there was no consensus among reviewers and workshop participants on this aspect. One of the reviewers stressed that it might not be necessary to differentiate between EU and non-EU States, as the work under the Regional Sea Conventions aims at developing capacities and policies in all countries. Implementing EBA is already a requirement under the Regional Sea Conventions, thereby also applying to non-EU Parties.

Breakout groups

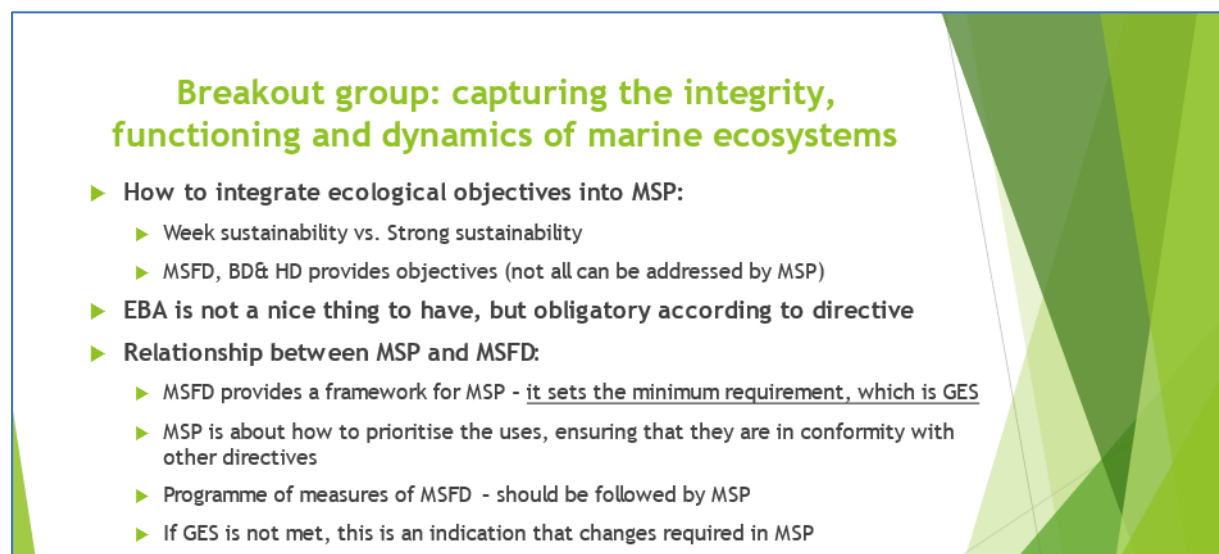
Pierre Strosser of ACTeon, introduced the breakout group session by presenting an overview of the comments received during the peer review phase. The workshop was then divided into three groups. These groups were moderated by the consortium partners and covered the following topics:

- Capturing the complexity of ecosystems
- Incorporating human activities and their socioeconomic considerations
- Organising the MSP process: governance and management

The discussions held in these groups were summarised by the rapporteurs and presented in the plenary at conclusion of the session.

Breakout Group 1: Capturing the complexity of ecosystems

Gerjan Piet of WUR together with Anda Ruskule of BEF coordinated this breakout session. The main conclusions from the discussions are summarised below:



Breakout group: capturing the integrity, functioning and dynamics of marine ecosystems

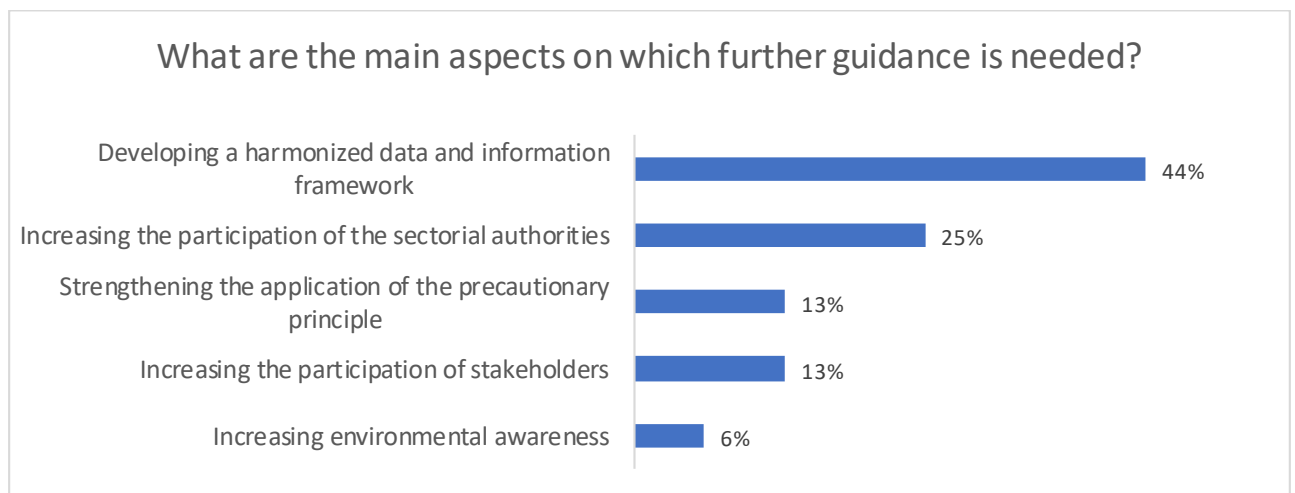
- ▶ How to integrate ecological objectives into MSP:
 - ▶ Weak sustainability vs. Strong sustainability
 - ▶ MSFD, BD& HD provides objectives (not all can be addressed by MSP)
- ▶ EBA is not a nice thing to have, but obligatory according to directive
- ▶ Relationship between MSP and MSFD:
 - ▶ MSFD provides a framework for MSP - it sets the minimum requirement, which is GES
 - ▶ MSP is about how to prioritise the uses, ensuring that they are in conformity with other directives
 - ▶ Programme of measures of MSFD - should be followed by MSP
 - ▶ If GES is not met, this is an indication that changes required in MSP

- ▶ **Precautionary principle should be emphasised**
 - ▶ Example: in EIA “0” option (not doing the project) should be considered
 - ▶ How to apply it (running of Cumulative Impact Assessment and assessing & applying its results)
 - ▶ To be applied in the case of uncertainties, ... followed by adaptive management
 - ▶ Not acting due to insufficient knowledge also might be risky
- ▶ **Applying Green Infrastructure in marine realm is problematic**
 - ▶ Not enough scientific evidence how to applying the connectivity assessment/blue corridors
 - ▶ Guidance needed how marine GI can be identified and institutionalized in MSP

- ▶ **Regional seas perspective:**
 - ▶ Guidance should look how the obligations agreed at regional seas are achieved
 - ▶ Baltic sea: the BSAP specifies the EU objectivesMSP contribution to achievement of these objectives should be assessed
- ▶ **Scale issue - regional sea as one ecosystem**
 - ▶ In order to act, you should decide where and how to act, nested approachsubdivisions of ecosystems
 - ▶ Mediterranean approach on defining appropriate assessment/monitoring scale for different parameters
- ▶ **Ecosystem service mapping and assessment**
 - ▶ still a developing field- we could not come up so far with concluding advice
- ▶ **EBA is not clear to practitioners: more practical/stronger guidance would be needed**
- ▶ **Target group of this guidance should be also researchers and scholars** - what are further researchers needs

Breakout Group 2: Incorporating human activities and their socioeconomic considerations

Tony Zamparutti and Guillermo Gea, from Milieu, coordinated this breakout session. An opinion poll was used to open this session, asking the participants about the priorities for the final revision of the guidance document.



The participants of this breakout session considered that the development of the data and information framework to support EBA is the most important aspect on which additional guidance is needed. Guidance for increasing the participation of sectorial authorities was selected as the second field to prioritise in the finalisation of the guidance.

The main conclusions from the discussions held in this session were summarised in the following slides, which were presented in the plenary:

Breakout group - Incorporating human activities and their socio-economic considerations

- ▶ Social values in EBA
 - ▶ **Fragile social groups** (e.g. small-scale fisheries) – low engagement levels, in particular to participate on decision-making processes towards the development of large-scale projects (e.g. Offshore Windfarms)
 - ▶ International sectorial associations/companies vs local actors have very different capacity to participate in these processes
 - ▶ Maritime Clusters tend to have higher participation from larger industry actors, leaving smaller social stakeholders with a smaller role in the process
 - ▶ Additional efforts are required for engaging local and smaller scale actors
 - ▶ The use of **ecosystem services** may support the role of fragile social groups for integrating EBA in MSP
 - ▶ Integrating not only monetary, but also social, cultural and indirect values
- ▶ It is necessary to **define quantitative social and economic objectives**, as environmental objectives are already defined (GES in the MSFD)
 - ▶ Potentially-conflictive goals: diversifying the development of the Blue Economy in line with environmental objectives
 - ▶ References to reducing pressures on the environment, such as reducing shipping lines or fishing quotas are politically sensitive. Stronger environmental awareness is necessary to overcome these issues.

Land-Sea Interactions

- ▶ Very **different scope** when it comes to including coastal areas in MSP across the EU's MS, varying depending on the region and guidance from the RSC
- ▶ Need to better integrate impact assessments from land-based activities in MSP and with regards to the marine environment, potentially through the use of **cummulative impacts assessment** tools
- ▶ Remarking the **economic importance of coastal activities** (MSP may focus on maritime sectors, but not fully considering their synergies on land)
- ▶ Improve the **use of available data** from existing policies (e.g. WFD), integrating the assessments of land-based impacts into MSP
- ▶ The **economic relevance** of the some maritime sectors may determine the capacity for including environmental considerations in MSP (e.g. Important ports or strategic shipping lines may compromise the capacity to develop MPA and other spatial protection figures)

Cross-border interactions

- ▶ **Espoo Convention** provides access to data and planning documents that could guide Member States for the integration of a cross-border perspective in their MSP
- ▶ **Fisheries-related** data have an inherent cross-border perspective. Increasing the EBA on fisheries management and their role in MSP processes would reinforce cross-border cooperation.
- ▶ **Shared ecosystem & shared responsibilities**: greater environmental awareness could lead to higher levels of protection, but also improved socio-economic benefits achieved through joint management
 - ▶ Regional Sea Conventions are playing a crucial role on strengthening these aspects
- ▶ **Cross-border cooperation** not only at regional but also at subregional level (e.g. Andalusian-Moroccan joint management) could serve to tackle challenges in a smaller scale and with a higher level of detail

Breakout Group 3: Organising the MSP process: governance and management

Pierre Strosser, from ACTeon, and Kristina Veidemane from BEF, coordinated this breakout session. The outcome of this session is presented in the following slides.

► **Different governance levels and scales**

- Transboundary context: how to make it happen? How to mobilise non-EU countries, using initiatives at Regional Sea level;
- Cross- border
- Sub-national level (regional)
- Municipal

► **Right people** needs to be brought together, thinking holistically (biodiversity); to acknowledge that there are different political views & will; different competencies, need to balance powers

► **Timing, synchronising** of timing of different planning, **adaptive** planning & management:

- Bring a bit of coherence between timeline of different directives.... Synchronization, coordination, or mechanisms that build bridges
- Connect to the most mature strategies and policies, accounting for different scales between at which processes take place
- Unexpected changes (e.g., European Green Deal), uncertainties in future
- Real-time adaptive management (e.g. DK, digital MPS, but in some countries (e.g., IE it is not so regular due to SEA, public participation, and adoption process)

► **Land-Sea-Interactions**

- Integration between planning domains– when talking about MSP making parallels with land-planning
- Jurisdiction of the planning (e.g. water mark, sea-shore) is critical
- Details in (scale) of the planning (based on ecosystems)

► Give more attention to data gathering and scale issues - how to get it better organized at different scales

► How can we build on other ABMTs should get further attention in the document

► Give attention to financing and resources required to "make it happen»

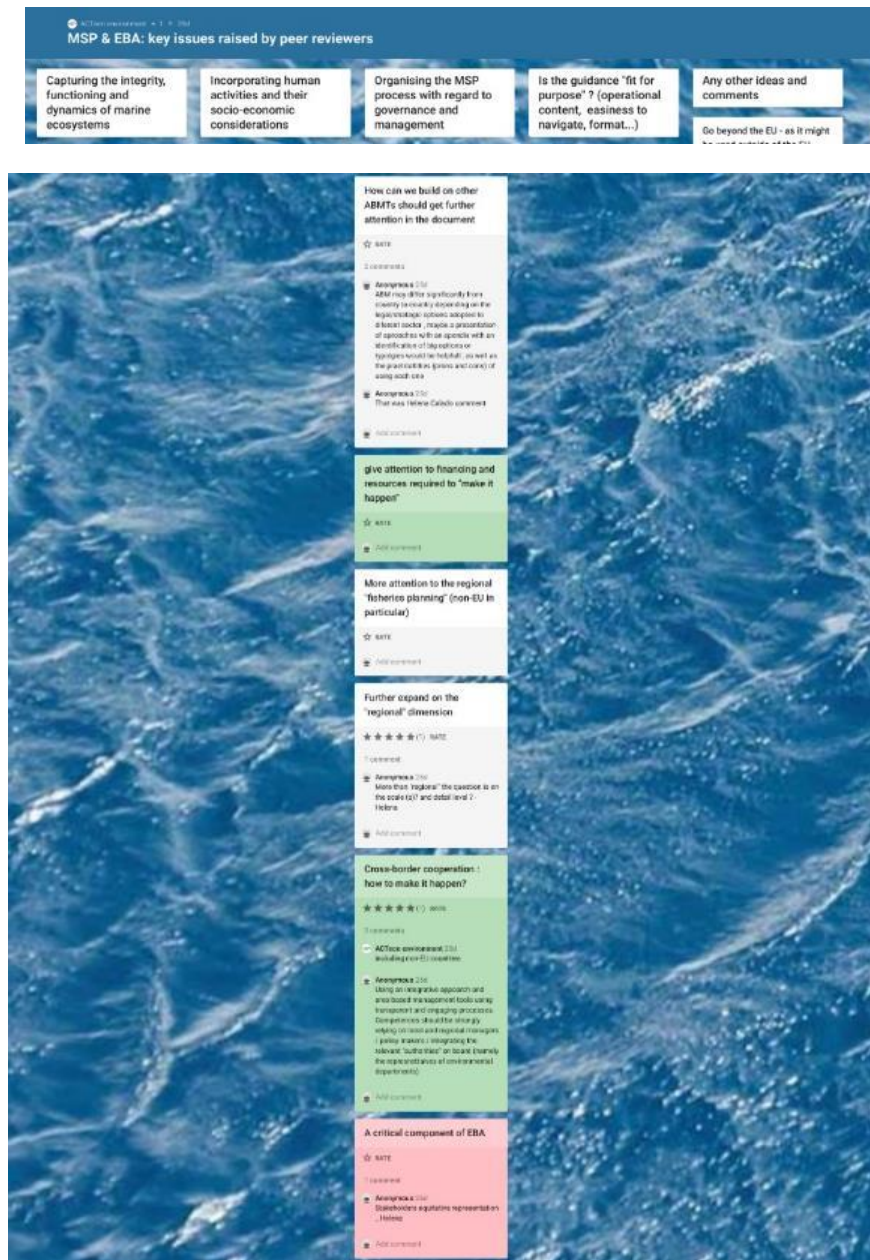
► More attention to the regional "fisheries planning" (non-EU in particular)

Inputs for the topic in this breakout session were also gathered via an online platform, Padlet. These inputs are provided in the images below.

Study on Integrating an Ecosystem-based Approach into Maritime Spatial Planning: Project Final Report

MSP & EBA: key issues raised by peer reviewers

Capturing the integrity, functioning and dynamics of marine ecosystems	Incorporating human activities and their socio-economic considerations	Organising the MSP process with regard to governance and management	Is the guidance "fit for purpose"? (operational content, easiness to navigate, format...)	Any other ideas and comments
<p>Knowledge gaps The gaps in data gathering and research are partially addressed in chapter 3, but not so much in chapter 4 (except the sub-chapter 4.1.2 Azasaaing). Need for more research on proper scale should be highlighted.</p> <p>☆ RATE Add comment</p>	<p>Fragile social groups to be considered</p> <p>☆ RATE Add comment</p>	<p>← ACTION environment (25) "not final" adaptive management, change it by putting before (change with predictability, process...)</p> <p>← ACTION environment (25) account also for local changes</p> <p>Add comment</p>	<p>Mismatch between chapter 2 (described vaguely) and the following ones</p> <p>☆☆(1) RATE Add comment</p>	<p>Go beyond the EU - as it might be used outside of the EU</p> <p>☆☆(1) RATE Add comment</p>
<p>The existing env. legislation as (MSFD and alike) a very sound basis</p> <p>☆ RATE Add comment</p>		<p>Connect to the most mature strategies and policies, accounting for different scales between at which processes take place</p> <p>☆ RATE 1 comment</p> <p>← ACTION environment (25) with clear instructions (set in the plan itself), underlined by all, on how to integrate and adapt concerning on ecosystem functioning</p> <p>Add comment</p>	<p>Get more information on "resource implications" (skills, days, money...)</p> <p>☆☆☆☆☆(1) RATE Add comment</p>	<p>Land-sea interactions to be further developed/give due consideration</p> <p>☆☆☆☆☆(1) RATE Add comment</p>
		<p>timing & timeline: bring a bit of coherence between timeline of different directives... asynchronisation or mechanisms that build bridges between different time lines or find the best time opportunities with in key national processes for setting/revising...</p> <p>☆☆☆☆☆(1) RATE 1 comment</p> <p>← ACTION environment (25) and governance mechanisms and solutions that bring some coherence. Marine planning as part of wider planning, marine planning connected to land planning (under large scale planning strategy/EU... water to soil)</p> <p>Add comment</p>	<p>Make clearer references to other guidelines</p> <p>☆☆☆☆(1) RATE Add comment</p>	<p>Data, information and knowledge confusingly used - be more specific</p> <p>☆☆☆☆☆(1) RATE Add comment</p>
		<p>Bring elected people in the process (political dimensions)</p> <p>☆ RATE Add comment</p>	<p>Build up a glossary of key terms (see sustainability, EBA...) for which different definitions exist</p> <p>☆ RATE Add comment</p>	<p>How did you choose tools that received some attention?</p> <p>☆ RATE Add comment</p>
		<p>Sub-national dimensions to be considered (regions, states in federal countries, municipalities...)</p> <p>☆☆☆☆☆(1) RATE 2 comments</p> <p>← ACTION environment (25) A specific "to debate" discussion!</p> <p>← ACTION environment (25) Issues of competencies/capacity/political will</p> <p>Add comment</p>	<p>Could go deeper in providing answers to key questions</p> <p>☆☆☆☆☆(1) RATE 1 comment</p> <p>← ACTION environment (25) e.g. what does it mean "to develop OAT..."</p> <p>Add comment</p>	<p>A wide diversity of issues and approaches covered</p> <p>☆ RATE Add comment</p>
		<p>Land-sea interaction</p> <p>☆☆☆☆☆(1) RATE Add comment</p>	<p>A bit heavy document as "practical" document</p> <p>☆☆☆☆☆(1) RATE 1 comment</p> <p>← ACTION environment (25) but better to "keep as a single doc"</p> <p>Add comment</p>	



Closing comments

The peer reviewers thanked the team for the organisation of the breakout sessions and the opportunity to discuss in detail their comments.

Anja Detant of CINEA shared with the audience the final steps of the project's working plan. Comments and feedbacks will be used to develop the final version of the guidance document expected by July 2021. She took the opportunity to announce the publication of the new EC communication on the Sustainable Blue Economy¹⁰. She closed the workshop by thanking the organisers and participants for their input.

¹⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new approach for a sustainable blue economy in the EU Transforming the EU's Blue Economy for a Sustainable Future- <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:240:FIN>

Appendix. Participants

Name	Organisation
European Commission	
Anja Detant	European Climate, Infrastructure and Environment Executive Agency (CINEA)
Camino Liqueste	DG ENV
Celine Frank	DG MARE
Christine Rockmann	DG MARE
Felix Leinemann	DG MARE
Guido Schwarz	DG MARE
Johnny Reker	European Environment Agency
John Brincat	DG MARE
Juan Ronco	DG MARE
Katarzyna Janiak	DG MARE
Kenneth Patterson	DG MARE
Peer Reviewers	
Alejandro Iglesias Campos	UNESCO - Intergovernmental Oceanographic Commission
Carla Kuhmann	WWF Germany
Dimitar Berov	Institute of Biodiversity and Ecosystem Research at the Bulgarian Academy of Sciences
Dmitry Frank-Kamenetsky	HELCOM
Helena Maria Gregório Pina Calado	University of Azores (Portugal)
Jochen Lamp	WWF Germany
Luc van Hoof	Wageningen University & Research (WUR)
Marion Brichet	Interregional Directorate of the Sea (France)
Massimiliano Mazzanti	University of Ferrara (Italy)
Mauro Randone	WWF Mediterranean
Michelle Portman	Israel Institute of Technology – Faculty of Architecture and Town Planning
Stavros Antoniadis	UN Environment Programme - Mediterranean Action Plan
Takehiro Nakamura	UN Environment Programme - Marine and Coastal Ecosystems Unit
Tatjana Hema	UN Environment Programme - Coordinating Unit for the Mediterranean Action Plan

Name	Organisation
Tom Woolley	Marine Planning Ireland
Other participants	
Andrea Barbanti	Italian National Research Council
Aliouris Kyriakos	Shipping Deputy Ministry (Cyprus)
Anouk Puymartin	Birdlife
Aron Westholm	University of Gothenburg (Sweden)
Caitriona Nic Aonghusa	Ireland Marine Institute
Dania Abdul Malak	European Topic Centre - University of Malaga (Spain)
Dijana Čataković	Seas at Risk
Elena Gissi	Stanford University (USA), Italian National Research Council (Italy)
Ingūna Draudiņa	Latvian Ministry of Environmental Protection and Regional Development
Jan Schmidtbauer Crona	Swedish Agency for Marine and Water Management
Leila Neimane	University of Latvia
Maria del Camino Troya Bermeo	University College Cork (Ireland)
Mārtiņš Grels	Latvian Ministry of Environmental Protection and Regional Development
Mihaela Candea	Mare Nostrum (NGO, Romania)
Patrycja Enet	European MSP Platform (The Netherlands)
Sagrario Arrieta	Spanish Ministry of Environment
Vesna Marohnić Kuzmanović	Croatian Ministry of Physical Planning, Construction and State Assets
Project team	
Anda Ruskule	Baltic Environmental Forum
Gerjan Piet	Wageningen University & Research (WUR)
Guillermo Gea	Milieu Consulting
Kristīna Veidemane	Baltic Environmental Forum
Lucille Labayle	Milieu Consulting
Pierre Strosser	ACTeon
Thomas Dworak	Fresh Thoughts
Tony Zamparutti	Milieu Consulting
Winona Vrancken	Milieu Consulting

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