

MarinePlan Final Event

Date: 29th -30th September, 2025

Time: 14:00-17:30 (CET)

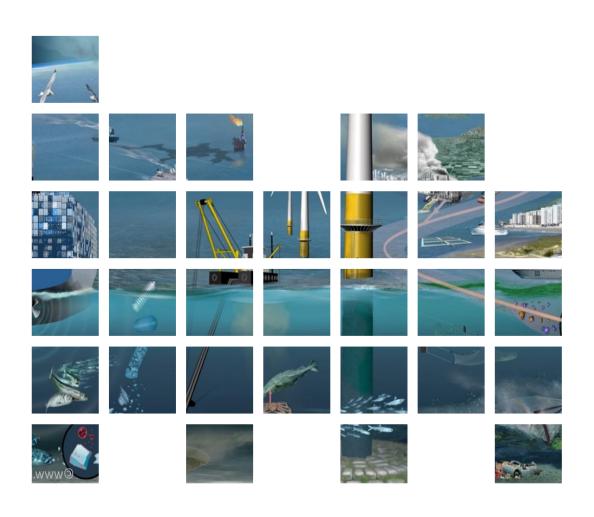
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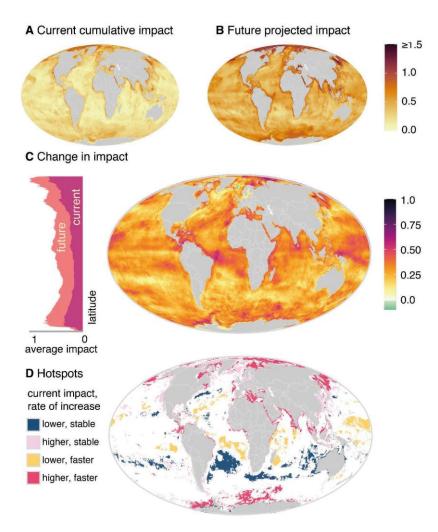




Global Increase of Human Pressures and Impacts



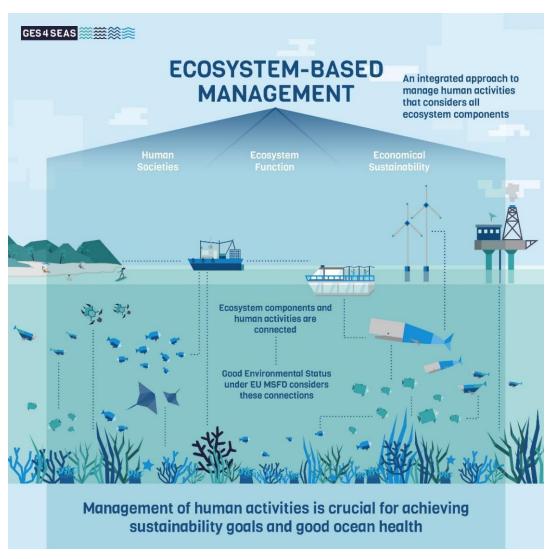




Halpern et al. 2025. Science

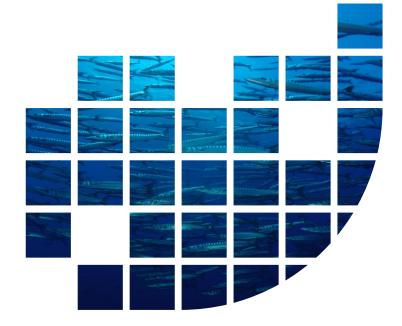
Need for Ecosystem-based Management (EBM)





"An ecosystem based approach is a strategy for integrated management that promotes equitable holistic protection and sustainable use, aligning with UN Convention on Biological Diversity (CBD) principles"

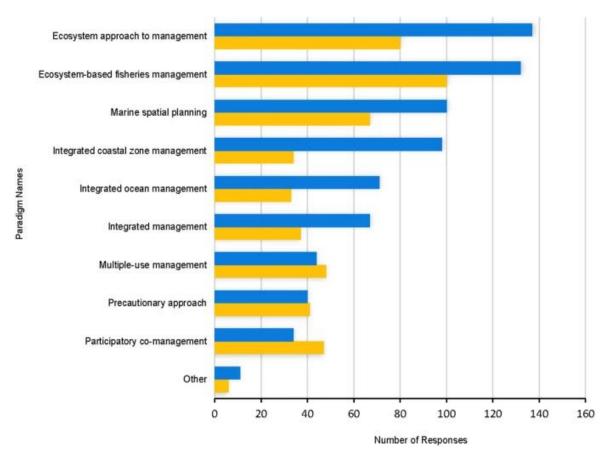
Secretariat of the Convention on Biological Diversity (2004)



www.ges4seas.eu

Many Tools for EBM Implementation





Haugen et al. 2024

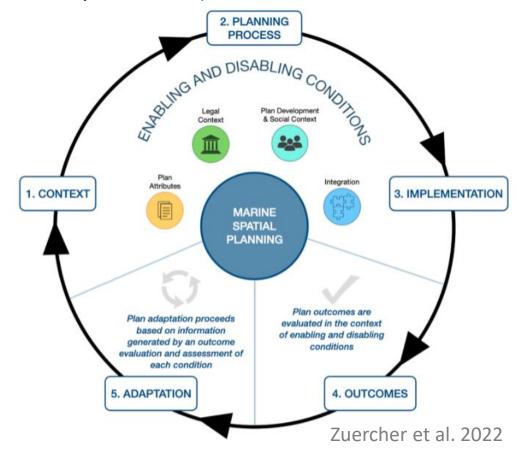
Results from the poll where the participants were asked if they had heard Ecosystem-Based Management (EBM) called by other names or linked to other paradigms (top blue bar; n = 153) and if participants work on other EBM-related topics (bottom yellow bar; n = 147).

- Marine Spatial Planning (MSP; Ehler and Douvere 2009)
- Integrated Ecosystem Assessment (IEA; Levin et al 2009)
- Systematic Conservation Planning (SCP; Pressey and Bottrill 2009),
- Integrated Oceans Management (IOM; Foster et al 2005)
- Ecosystem Approach to Fisheries/Management (EAF/M or EBM; Arkema et al 2006; Fletcher and Bainchi 2014; Long et al 2015).

Maritime or Marine Spatial Planning (MSP) Process

MarinePlan

 MSP is a step-wise process that allocates the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives (Douvere 2008; Foley et al. 2010)



KEY CHARACTERISTICS OF MARINE SPATIAL PLANNING



ECOSYSTEM-BASED

Ensures the health of marine ecosystems



INTEGRATED

Coordinates across sectors (fishing, tourism, energy, etc.)



PLACE-BASED

Tailored to specific marine areas and conditions



ADAPTIVE

Uses an iterative process to respond to change



STRATEGIC & LONG-TERM

Focuses on long-term goals and sustainability



PARTICIPATORY

Involves stakeholders, including the public



LEGALLY SUPPORTED

Backed by legal and institutional frameworks



DATA-DRIVEN

Relies on best available scientific data

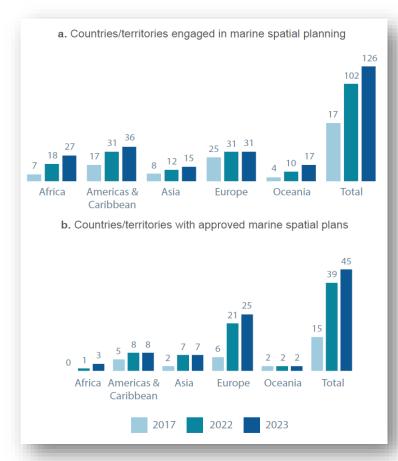


TRANSPARENT

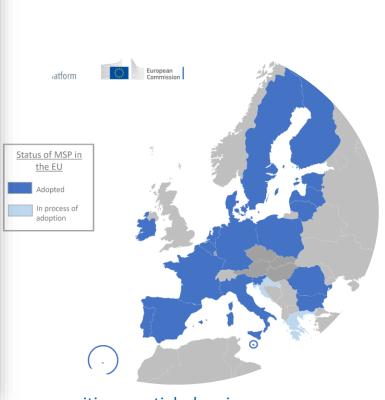
Ensures open processes and accountability

Status of MSP Implementation





IOC-UNESCO. 2024. State of the Ocean Report. Paris, IOC-UNESCO. (IOC Technical Series, 190).



www.maritime-spatial-planning.ec.europa.eu (Sep 2025)

- The EU MSP Directive promotes sustainable development and manages marine uses and conflicts.
- Member states had to adopt national maritime spatial plans by 2021.
- Challenges: fragmented processes, competing priorities, and weak integration of environmental objectives.
- The EU Ocean Pact calls for revising the MSPD to improve coherence and governance.

Key Challenges for MSP to Enhance Marine Conservation





- Legal and institutional fragmentation (conservation vs. MSP processes)
 Galparsoro et al. 2025; Frazão Santos et al. 2025)
- Data gaps and uncertainties to understand and address socioecological impacts of planning at different scales (Kruse et al. 2024)
- Need for harmonised monitoring and evaluation strategies (Stelzenmüller et al. 2021)
- More transboundary and regional coordination to address ecosystem relevant scales in planning (Elliott et al. 2023)
- Lack of practical guidance for ecosystem-based MSP (Kirkfeld et al. 2022)

MarinePlan: Goal and Planning Sites

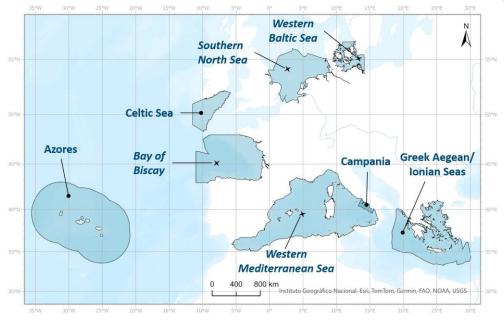
MarinePlan

Goals

- Co-develop with stakeholders and apply a Decision Support System (DSS) for ecosystem-based maritime spatial planning (EB-MSP) to align with conservation and restoration measures in European Sea
- Develop planning scenarios to meet 2030-30%-10% target and improved knowledge for aligning conservation planning with MSP

Facts

- EU Horizon Project (Oct. 2022 Sep. 2025); >3.5 Mio €
- 14 EU + 2 UK partners; int. advisory board
- 8 PS across Europe; 4 PS with transboundary settings X
- From small to large areas (3.700 955.000 km²)







































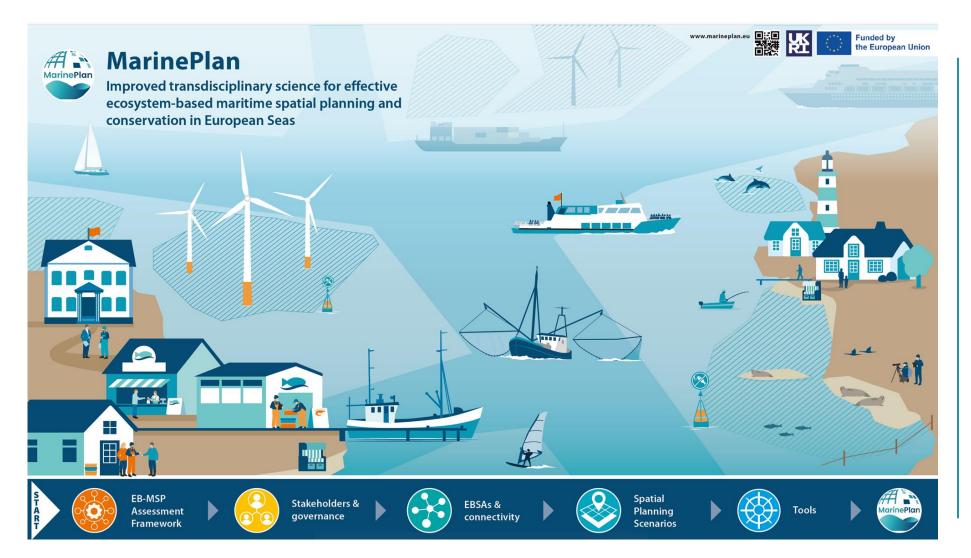






MarinePlan - Decision Support System





- Integration of natural and social science methodologies
- Standardised framework for planning site scenario development
- Use of MSP, EBSAs, and connectivity as spatial planning foundations
- Co-development with PS stakeholders



Stakeholders & governance



EBSAs & connectivity



Spatial Planning Scenarios



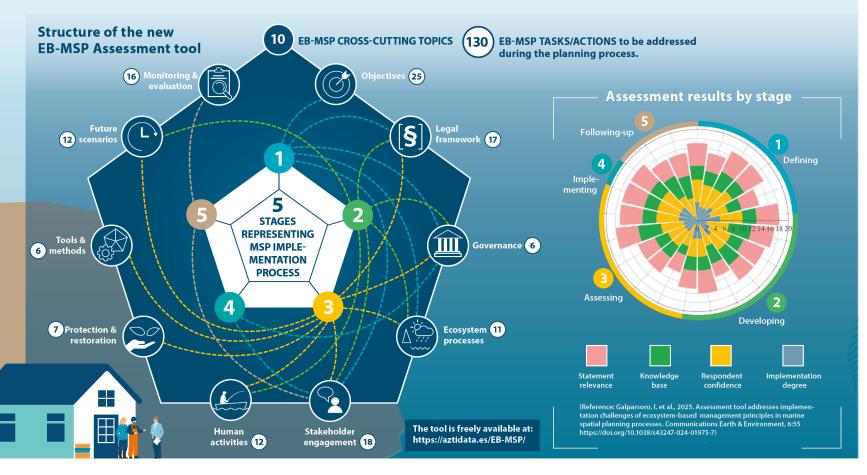
Tools



EB-MSP Assessment Framework

Ecosystem-based marine spatial planning (EB-MSP) is an approach to the sustainable management of maritime activities that ensures balanced achievement of economic, ecological and socio-cultural goals. Despite recognition of its benefits, a gap exists between EB-MSP conceptualization and practice, due to the lack of a standardized

framework for its operationalization. Therefore, a novel EB-MSP assessment tool has been developed to evaluate plans, identify existing gaps and provide guidance, in the form of targeted actions, for their improvement through adaptive management.



- Novel tool to assess the alignment of MSP processes with EBA principles
- Offers guidance and technical support for EB-MSP
- Identifies knowledge gaps and planning challenges
- Web tool with downloadable results
- Developed with PS stakeholder input













Spatial Planning Scenarios



Tools





To identify future pathways for marine governance, it is vital to understand how objectives are prioritised, how stakeholders participate and share knowledge, and how regimes adapt to change. To develop insight on these aspects, the following activities were conducted:



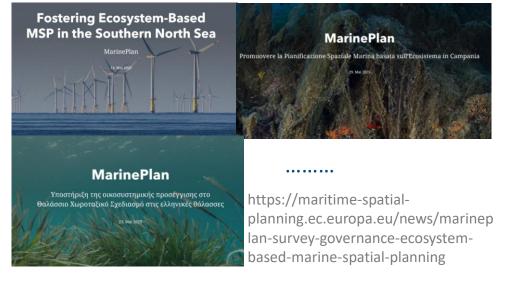
An institutional and policy audit of each study site, enabling an analysis of how marine governance is operationalised;



An assessment of the adaptive capacity of governance to identify what impedes and facilitates the implementation of new approaches.



PS story maps



PS stakeholder engagement and communication tools









Stakeholders & governance





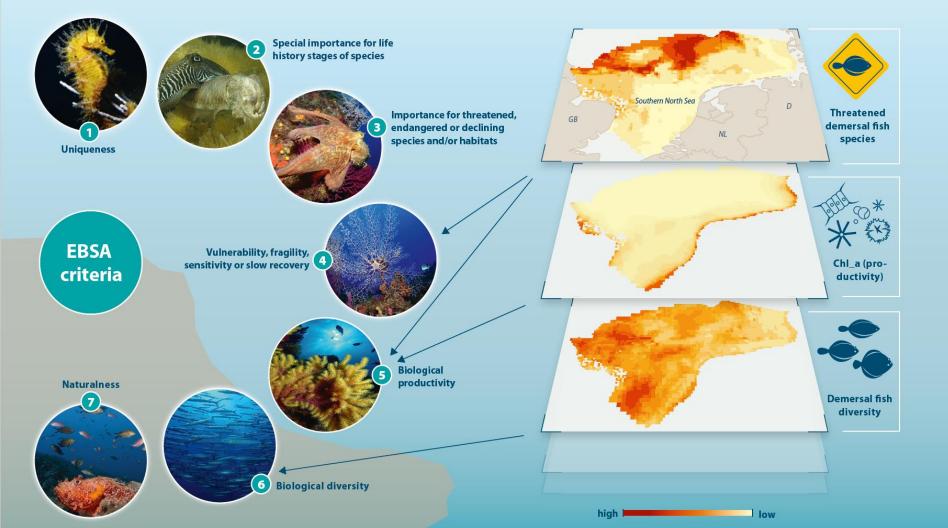


Tools



EBSAs (Ecologically or Biologically Significant Areas) & Connectivity

MarinePlan regards the operationalization of ecologically or biologically significant marine areas (EBSA) criteria as a main tool for MPA (Marine Protected Area) designation. A prerequisite for Planning Sites to develop scenarios and planning options is a robust science base for the prioritization and zonation of MPA networks by measuring the spatial distribution of existing and newly developed EBSA criteria.







Connectivity

Dark zones indicate target areas with great linkages to the region based on currents.

Project results

Marine Plan has developed quantitative, measurable metrics for seven EBSA criteria that fit current environmental directives. In addition, the spatial and temporal stability of these criteria has been assessed as well as source and sink dynamics and movement corridors between different places in a region.

Managers can now assess current and future MPAs and their effectivity in protecting and supplying ecosystem functioning and services.



Tools



Spatial Planning Scenarios

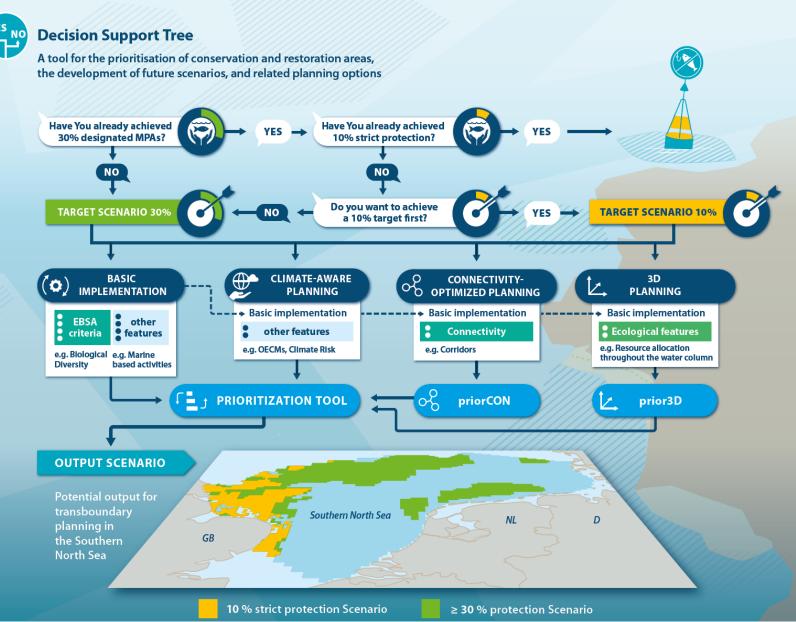
MarinePlan will derive from planning scenarios lessons learned how to achieve 2030-30%-10% targets in the context of EB-MSP and derive key action points to foster EB-MSP implementation in European Seas. Applying the EB-MSP DSS requires tools for the prioritisation of conservation and restoration areas, the development of future scenarios, and related planning options



Planning Sites

Eight archetypal European MarinePlan Planning Sites have been selected to achieve a broad geographical coverage, encompassing the Baltic Sea, North Sea, Celtic Sea, Atlantic, and Mediterranean Sea. At these Planning Sites project partners will coherently apply the tools developed within the project to derive commonalities, success stories and impediments with regard to the co-development of feasible and realistic planning options to achieve EU Biodiversity strategy targets with the help of EB-MSP.





AGENDA

17:15-17:30

Q&A Session

DAY 1- Monday, 29th September



Project Introduction and Background MarinePlan Decision Support System (DSS)
A Closer Look at DSS Building Blocks MarinePlan EB-MSP assessment tool: Introduction Key elements of conservation planning for an ecosystem-based approach Applying the EB-MSP tool: what we've learned Policy and stakeholder analysis EBSAs driving coherent conservation planning: lessons learned Building 2030-30%-10% scenarios in European Seas Steps to address requirements for EB-MSP Examples from Planning Sites
Introduction of Tutorials, Training, and Tools developed (Day 2 Program)
Q&A Session
BREAK
Showcase of Planning Sites (PS) Variability of charcteristics between Planning Sites Defining site-specific conservation objectives Solutions and examples from 2-3 Planning Sites
StoryMaps and Pathways of Impacts, Policy Recommendations
Lessons Learned and Reflections from the Project Advisory Board