



IMPROVED TRANSDISCIPLINARY SCIENCE
FOR EFFECTIVE ECOSYSTEM-BASED
MARITIME SPATIAL PLANNING AND
CONSERVATION IN EUROPEAN SEAS

Deliverable D7.2 First Annual Report



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MARINEPLAN PROJECT SUMMARY

The diversity of terrestrial and marine life is dramatically affected by human interventions including climate change. Compelling and growing evidence shows that biodiversity underpins ecosystem functions and services, and consequently, human benefits depend on them. Thus, the importance of ecosystems in a good state cannot be underestimated and calls for an effective management of marine activities and sustainable use of marine and coastal resources.

Maritime Spatial Planning (MSP) is the main governance process that ideally balances economic, ecological and socio-cultural goals through the regulation of human uses at sea. As a future-oriented process, MSP is well-placed to realise sustainable marine futures. With global and regional conservation and green energy targets ahead, there is an urgent need to define pathways for a better alignment of MSP and systematic conservation planning, as part of the operationalisation of an Ecosystem-Based approach to MSP (EB-MSP).

The EU-funded MarinePlan project supports the implementation of EB-MSP through the development of a Decision Support System (DSS). It will offer guidance for an improved alignment of MSP, spatial conservation, and restoration interventions during the challenging times of ever-increasing pressures on marine ecosystems.

This main goal will be achieved through four specific objectives for the European seas:

- #1 Co-develop with stakeholders the conceptual elements of the DSS (guidelines and tools) and derive best practice guidance for EB-MSP implementation.
- #2 Develop quantitative metrics to operationalise Ecologically or Biologically Significant marine Area (EBSA) criteria and their application at various spatio-temporal scales.
- #3 Implement and apply the DSS based on objectives #1 and #2, its guidelines, metrics, and tools at Planning Sites representing the diversity of European marine areas.
- #4 Provide recommendations and improvements concerning the shortcomings, impediments to, and opportunities of prevailing governance processes to enhance the implementation of EB-MSP.

MarinePlan develops and applies the EB-MSP DSS within seven Work Packages and eight European Planning Sites. The Planning Sites range from coastal ecosystems to open ocean and the deep sea and from local to transboundary scales. Applying and validating the DSS incorporates realistic planning scenarios, key action points to achieve the EU Biodiversity Strategy, and policy recommendations on how to enhance EB-MSP implementation in European Seas. MarinePlan will communicate results to decision-makers at horizontal (between sectors) and vertical (from local to European) levels and enable the transfer of knowledge to areas in differing socio-ecological settings. The improved natural and social science base will ensure effective policymaking to support a greater coherence in implementing environmental policies as well as to enable streamlined planning for marine industries.

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1 AIM OF THE DELIVERABLE

This deliverable reports the main activities and achievements of MarinePlan in the first 12 months of the project (10/2022 – 09/2023). It gives an overview over the main events, achievements and publications. The aim is to inform stakeholders and funders about the project's progress.

1.1 CONTRIBUTORS

Table 1 Names and roles of contributors to this deliverable.

Name	Affiliation	WP Lead	Task Lead
Anna Reichel	Thünen-Institute of Sea Fisheries		

2 INTRODUCTION & MAIN EVENTS

MarinePlan started officially on the 1st of October 2022 and will run until 30th of September 2025. A consortium of 17 partners from the EU, UK and Canada will work together to improve transdisciplinary science for effective ecosystem-based maritime spatial planning and conservation in European Seas. MarinePlan develops and applies the EB-MSP DSS within seven Work Packages and eight European Planning Sites. The Planning Sites range from coastal ecosystems to open ocean and the deep sea and from local to transboundary scales.

During the first year of the project we focused on creating a solid foundation of internal communication and frequent exchange between the partners. Important tasks were started and first milestones and results were achieved.

The project was launched with a kick-off meeting in November 2022 in Naples with 54 in person and online participants, where workflows and collaborations between partners were established. Sister projects presented their approaches (MPAEurope, MSP4Bio, MarineSABRES) and PAB members gave valuable advice.



Participants of the MarinePlan Kick-off meeting in Naples

In June 2023 partners from all eight planning sites as well as all seven work packages met in Barcelona to strengthen the connection between theory and application. The 28 participants made sure that planning sites are actively involved in the tasks and stakeholder feedback is continuously integrated in the workflow.



Participants during session of the 1st planning site workshop in Barcelona

The first general assembly of MarinePlan was held in September 2023 in Horta, Azores. Around 40 project and advisory board members came together to update each other on the progress and further improve collaboration on tasks. A focus was on the improvement of collaboration between work packages and reconnecting the tasks with the project objectives.

The opening session of the meeting was accompanied by the local news and broadcasted on national TV ([Link to TV news clip](#); start 15:06 min)



Project leader Vanessa Stelzenmüller during the opening speech of the 1st MarinePlan General Assembly

3 MAIN ACHIEVEMENTS

WP 1: EB-MSP KNOWLEDGE AND GUIDANCE

- First version of a **EB-MSP assessment framework** and guidance for its implementation
- **Definition of concepts and terms** related to EB-MSP and EU policy objectives that drive its implementation
- **Review of main documents** on EB-MSP principles and criteria. → synthesis and adaptation to MarinePlan
- **Rapid EB-MSP assessment** checklist and guidance

WP2: SCIENCE-BASED EBSA AND MPA NETWORK DESIGN

- Identification of **relevant EBSA criteria** in the planning sites
- Development of **technical interfaces between physical modelling products** from the Copernicus Marine Environment Monitoring Services (CMEMS) and the particle drift model PELETS

WP3: PRIORITISATION TOOLS AND SCENARIO DEVELOPMENT

- **Three scoping reviews**, on ABFM, OECM and SCP
- Developed and optimized the **code for 3D prioritisation**
- Developed a multi-objective and multi-target approach
- Initiated the development of a **novel 4D prioritization approach** and **connectivity metrics**

WP4: POLICY ADVICE AND STAKEHOLDER ENGAGEMENT

- **Workbook** including detailed information on **collecting and reviewing legislative material, and conducting and analysing semi-structured interviews** with marine management actors
- **Institutional and policy audit** of MPA and MSP processes within each of the 8 planning site

WP5: PLANNING SITES AND COMMUNICATION

- **Identification and mapping of relevant stakeholders** in the planning sites
- **Stocktaking of data and knowledge** to support EB-MSP in the planning sites

WP6: DATA MANAGEMENT AND VISUALISATION TOOLS FOR EB-MSP

- Further advancing the **OceanViz tool**
- Establishing **Data Management Plan**
- Providing **infrastructure and guidance for data management** within the project

WP7: PROJECT MANAGEMENT AND DISSEMINATION

- Developing and managing the **project website** (www.marineplan.eu)
- Establishing **internal communication infrastructure**
- Planning and facilitation of three big **project meetings**

4 PUBLICATIONS

- Brito, J., Soszynski, A., Pham, C.K., Giacomello, E., Menezes, G., Steenbeek, J., Chagaris, D., Morato, T. (2023). Systematic evaluation of a spatially explicit ecosystem model to inform area-based management in the deep-sea. *Ocean & Coastal Management* 244 (2023): 106807. <https://doi.org/10.1016/j.ocecoaman.2023.106807>
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