Fostering Ecosystem-Based Marine Spatial Planning in the Southern North Sea

Policy brief / September 2025

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Research context

Marine Spatial Planning (MSP) is an important governance process that ideally balances economic, ecological and socio-cultural goals through the regulation of human uses at sea. With significant near-term targets in conservation and green energy, there is an urgent need to better align MSP and strategic conservation planning. This is best met through the operationalisation of an ecosystem-based approach (EB-MSP), where ecological protection is balanced against the management of human activities. The EU-funded project MarinePlan supports the implementation of EB-MSP through the development of a Decision Support System (DSS). To inform the DSS, research has been conducted on the effectiveness of current governance regimes across eight European study sites, including the Southern North Sea (SNS). The SNS study site encompasses Belgium, the Netherlands, Germany and part of England. Through an institutional and policy audit, supported by interviews with key marine actors, detailed information has been developed on the barriers and enablers of adaptive marine governance in each region. The DSS integrates this ecological, socio-economic, and governance data to help decision-makers' trade-off evaluations.

Governance targets and objectives

MSP remains a tool used in a national context without fully considering the ecosystem as a whole. An integrated perspective is needed regarding the implementation of MSP in the SNS. Planning in isolation risks creating mismatches between adjacent jurisdictions, hence the importance of establishing cooperation across borders and enhancing alignment between national plans. Facilitating genuine integration between SNS nations will be central to ensuring more coherent management of shared space and resources in the region. However, this research has identified several governance challenges that are obstructing MSP related progress. These challenges, as well as proposed solutions, are outlined on the following page.

MarinePlan has received funding from the **European Union's Horizon Europe** research and innovation programme HORIZON-CL6-2021-BIODIV-01-12 under grant agreement number 101059407 and by **UK Research and Innovation** under the UK government's Horizon Europe funding guarantee grant numbers 10038951 & 10050537.

Barriers to achieving targets and recommendations

Barrier #1 – Policy complexity and fragmentation caused by different legal frameworks, planning cycles, and institutional setups

Recommendation – Establish cross-border planning mechanisms and strengthen institutional collaboration. This could include working groups for shared zones, harmonised planning criteria, and more direct roles for platforms like OSPAR and ICES. Coherence will depend on institutional linkages and political commitment.

Barrier #2 – Limited harmonisation of conflicting priorities, such as renewable energy targets and the protection of marine biodiversity

Recommendation – Move toward basin-scale spatial planning to reconcile competing objectives. Building on the work of the *North Seas Energy Cooperation* and the *Greater North Sea Basin Initiative*, this should involve coordinating site selection for offshore wind and identifying multi-use zones where synergies are possible.

Barrier #3 – Limited interaction and cooperation between different sectors (e.g. fisheries) and environmental Non-Governmental Organisations (eNGOs)

Recommendation – Develop and promote joint projects between sectors, such as fisheries, and eNGOs to build trust. Efforts could involve supporting low-risk projects to maintain local fisheries practices. For example, projects could involve establishing fisheries management zones wherein fishers and environmental groups jointly manage resources. Shared monitoring programs – focused on water quality or fish stocks – could also be supported. Efforts could then be broadened beyond fisheries.

Barrier #4 – Stakeholder involvement in MSP is uneven across the SNS region, with some sectors disengaged with the process

Recommendation – Improve stakeholder trust through early, transparent engagement. Formalised steering committees should be created to include sectoral representatives, with facilitators assigned to work with less experienced stakeholders. Each committee should link to cross-border dialogue.

Barrier #5 – Ineffective and inconsistent management measures for fisheries, pollution and biodiversity across the SNS

Recommendation – Launch a comprehensive review of Belgian, Dutch, English and German marine governance – identifying overlapping or outdated policies – to inform a harmonisation roadmap for the SNS region. This can be supported by the setting of joint, quantifiable sustainability objectives.

Barrier #6 – Monitoring mechanisms to evaluate MPA effectiveness are weak, leading to limited adaptation or learning in MPA management

Recommendation – Establish clear evaluation protocols based on SMART indicators to demonstrate MPA performance against their design objectives, with results swiftly reflected in revised policy. This should be supported by the creation of specific funding mechanisms for continuous MPA monitoring.

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More information

To read more on MarinePlan's recommendations for the SNS, click on the below links to an ArcGIS StoryMap, Deliverable reports, and a publication presenting an EB-MSP assessment tool:

ArcGIS StoryMap

'Fostering ecosystem-based MSP in the SNS'

Deliverable 4.1

'Report on existing policies and institutions'

Deliverable 4.2

'Report on adaptive capacity of governance'

EB-MSP Assessment Tool

'Assessment tool to address implementation challenges of EBM principles in MSP processes'

References

ArcGIS StoryMap – https://arcg.is/18HC5i4
Deliverable 4.1 – doi.org/10.5281/zenodo.10829632
Deliverable 4.2 – doi.org/10.5281/zenodo.13862281
EB-MSP Assessment Tool – doi.org/10.1038/s43247-024-01975-7

Website and contact details

For more information, please visit the MarinePlan website or contact Dr. Ben McAteer.

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