eMSP NBSR
Emerging Ecosystem-based Maritime Spatial Planning Topics in the North and Baltic Sea Regions

Co-funded by the European Union

MSP in a sea of change – aim for better and connected plans

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Contents

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Disclaimer:

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1. Introduction

With many European countries now completing and implementing first or subsequent generation MSP plans, monitoring and evaluation in MSP have become more broadly discussed among MSP authorities and planners. The common understanding of MSP evaluation is that it tracks the success of a plan or planning process in achieving set objectives. Although a range of tools and approaches have been developed to guide planners in this task (e.g. Ehler 2014, UNESCO-IOC/European Commission 2021, Varjopuro et al., 2019), the complexity of the task can still seem overwhelming. The terminology surrounding monitoring and evaluation is not always clear-cut; there are many contributing elements that need to come together for comprehensive plan evaluation, and it can be difficult to define what ultimately constitutes a successful plan or planning process.

At the same time, MSP is faced with substantial change and challenges. Offshore renewables are pushed by governments in the quest to become energy-independent and CO_2-neutral; biodiversity and fisheries are important fields in the context of the European Green Deal, and climate change is affecting all European seas and sectors. The 10-year timeline for plan revisions set out in the MSP Directive may become redundant as plans might need to be revised earlier and more frequently in the light of change. This has implications for monitoring, but it also means that plan development and evaluation will increasingly go hand in hand as there may not be the time or resources for full-scale retrospective evaluation before the start of the next planning cycle.

Against this background, it is timely to review MSP evaluation from a practical perspective. How can the complex task of evaluation be broken down into easy steps that are manageable and adaptable to different circumstances? How do we assess the coherence of (changing) plans across sea basins despite changing contexts? What constitutes meaningful plan evaluation when a new planning process might already guide decisions? Last not least, is there a minimum level of assessment that should always guide evaluation, and are there elements that could be considered optional extras?

The eMSP NBSR project – “Emerging ecosytem-based maritime spatial planning topics in the North and Baltic Sea Regions” (2021-2024), co-financed by the EU under the EMFF-MSP-2020 call, aimed to build mechanisms to support MSP planners in the North and Baltic Sea Regions to achieve greater coherence in MSP. Its central approach was to learn from each other through a community of practice (CoP) model. Based on creating forums for a range of stakeholders, practitioners and researchers, MSP developments were discussed in five interrelated thematic areas (see www.emspproject.eu). One of these thematic areas was “Monitoring and Evaluation” (M&E), which is reported on here.

The CoP for M&E met for the first time on 26 April 2022, followed by 9 further full CoP meetings during the project period as well as subgroup meetings with specific content. Based on a twin focus on evaluating MSP and coherence, the overall aims of the CoP were:

- To illustrate and develop methods and approaches that can help countries organize the MSP review process,
- To facilitate evaluation of coherence (e.g. by testing existing templates/ideas),
- To collect practical experiences of monitoring and evaluation from CoP members,
- To extend/verify other knowledge and experience in this field.

An important aim was to identify what countries are doing for M&E and why in order to compare and discuss the varying approaches. Rather than develop a uniform approach to MSP evaluation, the aim of this report is to provide a structured approach to designing MSP evaluation, showcasing different ideas and concepts and how they are being applied in practice. The report is structured as follows:

Chapter 2 summarizes key terms, our understanding of MSP monitoring and evaluation and previous project work.

Chapter 3 is the core of this report. A conceptual framework is presented that covers all relevant aspects in regard to M&E of MSP and the coherence of plans. These dimensions are described and examples given to provide feasible help for planners to set up an M&E system.

Chapter 4 concludes how the framework can be of help to tackle climate change and the European Green Deal in M&E.

Chapter 5 is a short description of the work within this Learning Strand and the related Community of Practice.

A brief description of the M&E-related work of our sister project MSP OR can be found in chapter 6.

Chapter 7 summarises the key messages for planners, stakeholders and policy-makers in a list of 32 recommendations.

Chapter 8 is a brief summary of the aims of this report.

2. M&E – state of the art

M&E has been considered in various previous MSP projects, and there are existing resources that attempt to break down the perceived complexity of M&E into a series of logical steps. This chapter summarises some general information from existing documents and handbooks and from current scientific research.

2.1. Key terms

Monitoring is understood here as the routine (ongoing) and ideally systematic collection of data and information during the lifespan of the marine spatial plan and during the drafting process. It aims to provide planners and stakeholders with information on the status of ongoing activities (Van den Burg et al., 2023).

Monitoring is often considered in the context of ecological monitoring (such as monitoring the impacts of climate change or human activities in the sea) but can also relate to monitoring the economic and social impacts of maritime developments (such as jobs created, value created, changing societal attitudes) and the effectiveness of a plan, e.g. monitoring how it is being used by relevant authorities for decision-making. Monitoring usually relates to targets that should be achieved, which sets it apart from observation.

Observation is similar to monitoring but is related to more general trends and developments that could affect sea space. An example is to observe the development of maritime sectors or public attitudes to note any changes but without a policy agenda or quantitative target in mind. Although it may seem less specific, observation also benefits from a regular and above all systematic approach in order to have a reliable evidence base for later-stage analysis.

Importantly, both monitoring and observation require a baseline against which to interpret change.

Evaluation is a periodic activity that establishes whether the objectives of the plan or the planning process have been achieved, or that asks more precise questions of what works, why and how, in order to then make the necessary improvements to a plan or planning process. Evaluation depends on a good knowledge and information base, which in turn depends on systematic monitoring and observation of important indicators and parameters.

Review is the process of analysing whether the current version of the plan is still appropriate and what changes need to be made in order to improve outcomes.

2.2. Why and what to evaluate?

The EU MSP Directive (2014/89/EU) requires a review of maritime spatial plans by Member States at least every ten years (Art. 6). The academic literature agrees that regular evaluation has multiple benefits (Van den Burg et al., 2023, Stelzenmüller et al., 2021;, Carneiro, 2013; Douvere & Ehler, 2011) Given that MSP is adaptive, the evaluation stage has traditionally been seen as an opportunity to ask critical questions both of the MSP process itself and the outcomes of this process (Ehler 2014):

- Are we getting better at MSP?
- Are the measures stipulated in the plan efficient and appropriate?
- If not, why not?
- What needs to be changed in order to improve outcomes?

It is likely that each country will have its own definition of a successful MSP plan and planning process, and that different weight may be given to the success of different aspects or elements of MSP. The most readily understood example of unsuccessful MSP is when the plan is not achieving the desired steering effects, but MSP could also be unsuccessful if it is not supported by stakeholders or if new planning rounds are not taking into consideration the lessons learnt from the previous round (Ehler 2014). From an EU perspective, MSP could be regarded as unsuccessful if it does not meet the requirements of the 2014 MSP Directive (European Commission, 2022).

Evaluation can seem complicated because it has many dimensions, each of which is associated with different timescales and starting points in the MSP cycle. The most common forms of evaluation include:

- Implementation and compliance evaluation – are the authorities/public bodies doing what is required of them to implement the plan(s)?
- Outcome/performance evaluation - are key plan objectives being achieved?
- Process evaluation - how effective is the planning process, including the plan drafting and implementation process, and how satisfied are stakeholders and authorities with the process?

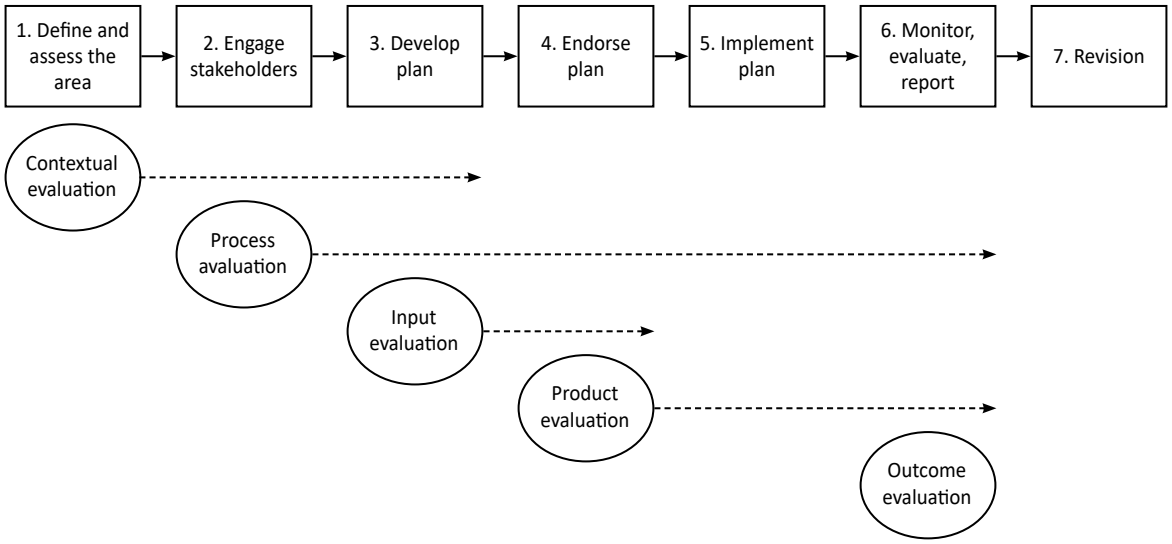


Figure 1: Different forms of evaluation may apply at different stages of the MSP planning cycle (adapted from Carneiro, 2013)

2.3. How do we know the effects of a plan?

One of the central challenges in MSP evaluation is to establish what exactly a plan is achieving. As a general rule, an MSP plan is likely to support a diversity and hierarchy of objectives. Most plans will support high-level and long-term policy aims, such as healthy seas or vibrant coastal communities. At the same time, there will be specific sectoral aims (such as facilitating the expansion of offshore wind) as well as more specific location-specific objectives, some of which may be shorter-term or process-oriented (such as facilitating specific forms of spatial co-use or minimizing sectoral conflicts).

The more long-term and general the objectives, the more difficult it is to measure the specific role of an MSP plan or process in achieving them. Given that MSP is likely to work on short and long-term objectives at the same time, and in concert with other policies and approaches, evaluation thus needs to deal with the problems of attribution (which effects that are being observed in the ocean can really be attributed to MSP?) and causality (What effects are really caused by MSP and in what way?).

The attribution problem

One way of dealing with the attribution problem is to differentiate between factors that are directly controlled by MSP and factors that are not. In most cases, MSP can directly control the resources that are spent on producing a plan, for example, or the activities undertaken to draw up and implement a plan. It is therefore also possible to measure the impact of such activities, e.g whether the resources spent, or the planning stages undertaken have led to the desired outputs (a plan, other products) and outcomes (e.g a plan that is broadly supported by most stakeholders).

On the other hand, MSP cannot directly control the environmental status of the sea or other long-term socio-economic objectives where the influence of other, external factors is likely to be greater. Here it is difficult to circumvent the attribution problem and to measure the singular effects of MSP as part of a broader concert of factors.

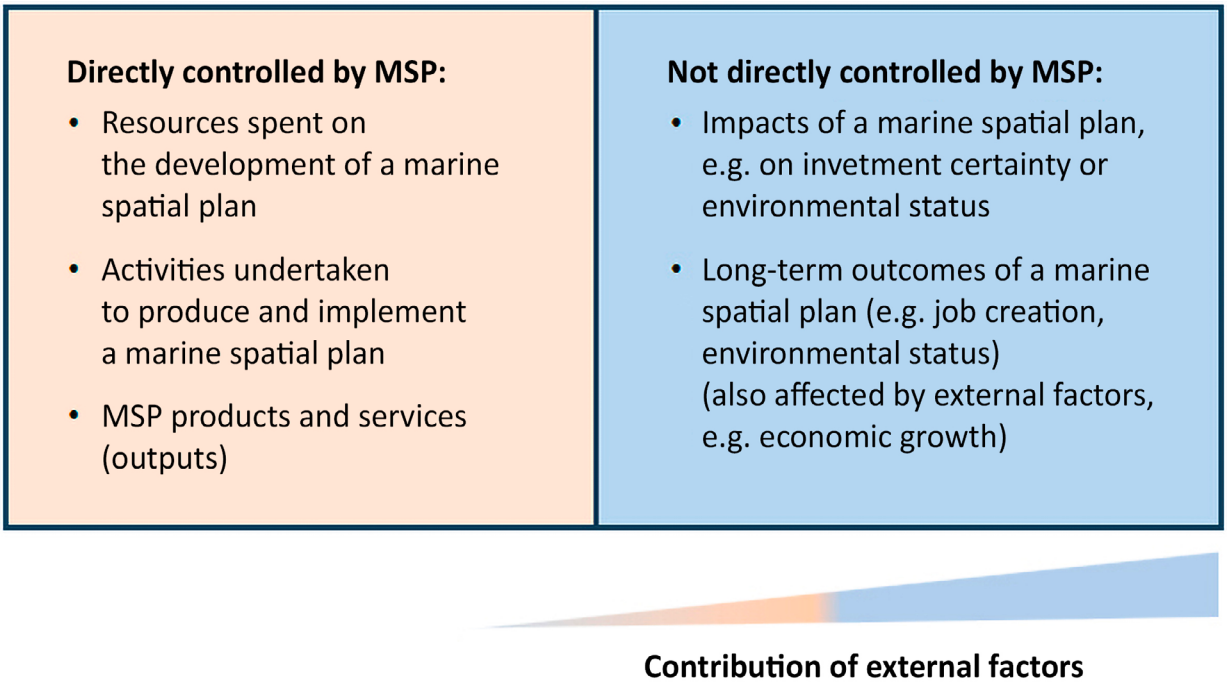


Figure 2: The attribution problem in MSP: Differentiating between aspects that are and are not controlled by MSP (adapted from MMO, 2018)

Building a theory of change

A theory of change is a way of addressing the causality problem (Baltic Scope 2017). At its most basic, a theory of change tries to explain why the plan or planning process is achieving the outcomes it is achieving, and to do so in a systematic way, based on assumptions that certain actions (or interventions) will have certain consequences (or impacts).

Interventions can be the various inputs that are necessary for plan-making (such as staff, financial resources), the activities that are organized during the drafting process (stakeholder events, workshops, consultation meetings), or outputs such as a planning document or planning regulations. Each of these inputs, as well as all of them in concert, are expected to have certain impacts. Some of these will be more immediate (such as the expected steering effects of a plan) and others more long-term, such as improving the quality of the environment or promoting investment in the blue economy. Whatever the expected impact, each is linked to certain assumptions that are key to their effect. For mid-term impacts, an assumption might be that the plan will in fact be implemented as intended; another might be that stakeholders will be willing to contribute to the process and share data. For more long-term impacts, assumptions may rely on modelling or

scenarios, such as regarding the marine environment or climate change. They may also relate to the continuity of policy or the level of investment in a certain sector. Each of these assumptions will have its own level of uncertainty, leading to risks that the link may in fact be weak or not exist at all. As such, a theory of change is exactly this – a theory that comes with different levels of certainty depending on the causalities in question.

A theory of change is a starting point for evaluation in that it sets out an impact logic – showing how we expect a plan, or its constituent elements or drafting stages, to work. These pathways to impact are never entirely linear, and in fact there may need to be multiple theories of change to identify possible impacts and challenges in a systematic way. The actual evaluation process then tests to what degree the impact logic holds true and whether events really followed the theory of change, including whether set goals were reached or not.

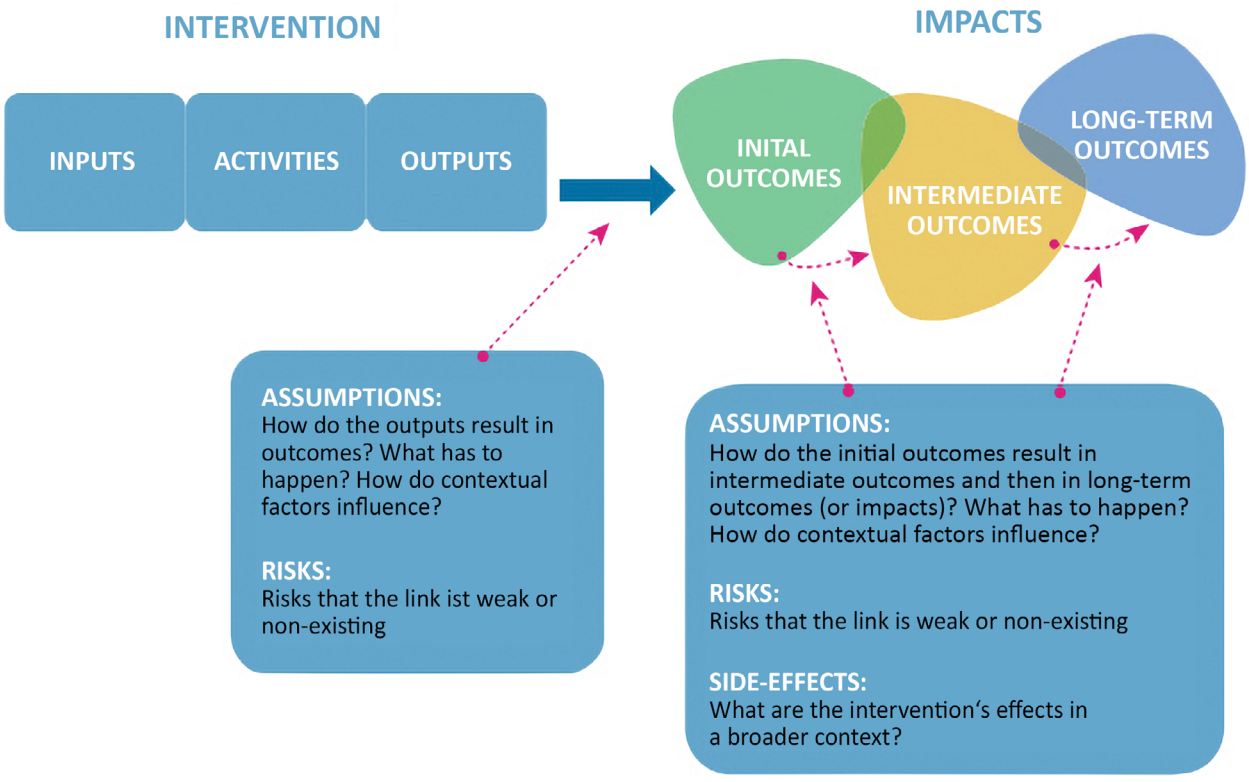


Figure 3: A logic model for designing evaluation based on inputs, activities and outputs and associated assumptions (Baltic Scope, 2017)

In England, the Marine Management Organisation differentiated between inputs, activities, outputs, immediate outcomes and long-term outcomes to build its theory of change. For evaluation purposes, questions can then be formulated that focus on the element or goal itself or on the change that was achieved through each element (Figure 3).

Example: England / MMO

Term	Definition	Focus on element/goal itself:	Focus on change:
Inputs	Resources needed to produce marine spatial plans/the process	Enough staff, time, resources? (Preconditions for planning)	Did the inputs lead to the desired activities and outputs?
Activities	The marine planning activities undertaken	Were there enough/the right activities, was there equitable representation etc.? (Standards for the planning process)	Did the actitivities lead to the desired outputs – an accepted plan, stakeholder satisfaction?
Outputs	Marine spatial planning products or services	Is there a plan and is it being implemented? What other tools, publications, evidence was produced?	
Immediate outcomes	Effects of achieving the plan's objectives	Increased certainty for investors, plan-led decision-making, less conflict, better cooperation between ministries etc.	Is the plan/planning process really leading to better decision-making?
Long-term outcomes	Contribution to larger-scale aims or goals	e.g. contributing to sustainable blue economy, contributing to MPA goals etc.	How is the plan making a difference to the blue economy?

Figure 4: An evaluation logic based on defining inputs, activities and outputs and asking corresponding evaluation questions (adapted from MMO 2018)

Recently, it has been argued that M&E should move away from evaluating the effectiveness of MSP on its own and that more holistic evaluation should instead be promoted in the sense of policy-mix learning (Van den Burg et al., 2023). In this reading, the purpose of M&E in MSP is not to provide a linear, one-dimensional answer to whether MSP achieved a particular policy objective. Instead, it is more about creating space for dialogue that facilitates reflection and interaction as part of a shared process of learning. The success of MSP would thus be jointly defined by those participating in the reflective space. *"M&E is of greater value if it can initiate and stimulate processes of social learning and empowerment of the involved. (…) Organising M&E of MSP for the purpose of contributing to the creation of a dialogue space could then allow a joint process of learning, where various stakeholders reflect on and jointly seek to improve MSP."* (Van den Burg et al., 2023).

A theory of change, or any other non-linear approach to M&E, can be built collaboratively together with stakeholders in exactly such a dialogue space – including as part of a community of practice.

2.4. The role of stakeholders in monitoring and evaluation

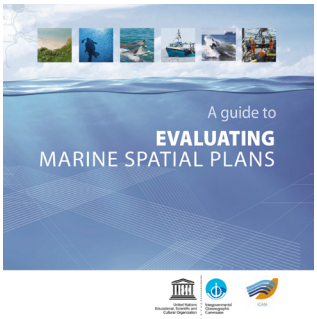
There is no question that stakeholders can play a key role in evaluating the success of a plan or a planning process. The exact role stakeholders can (and are willing to) play depends on the task at hand (e.g. what is to be monitored or evaluated), the stakeholders themselves (e.g. their remit or interest in the sea, the resources at their disposal), and the timing of the task (e.g. ongoing monitoring, periodic evaluation).

The most common role for stakeholders is to provide data for M&E, such as environmental data. They can also supply information on trends in sectors or industry or information on plan implementation, e.g. which elements of a plan a licensing authority is finding easy or difficult to follow. The role as information or data provider can be a one-off or an ongoing role, prompted by the plan-making authority before an actual evaluation stage or during regular monitoring.

Stakeholders, however, can also play a more direct role in designing an evaluation process, for example by helping to define success and the guiding questions for evaluation. Stakeholders can also be involved in determining what constitutes a good or bad outcome (bearing in mind there may be different opinions).

Whatever form and intensity are chosen, there is general agreement that stakeholders should be engaged in the actual evaluation in some way, not least for reasons of transparency.

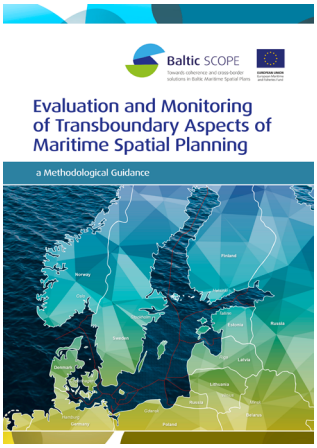
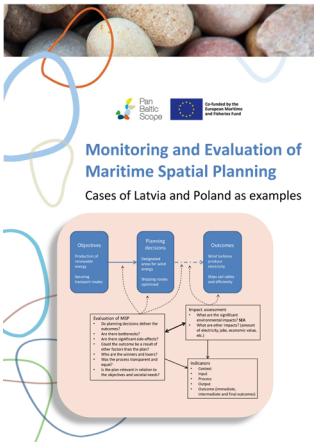
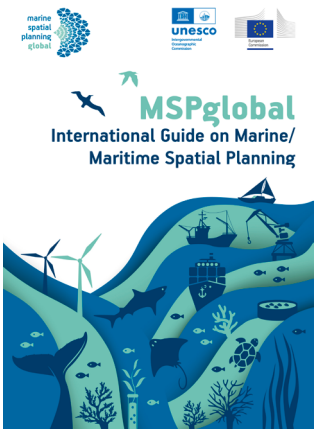
2.5. Existing guides and frameworks for evaluation

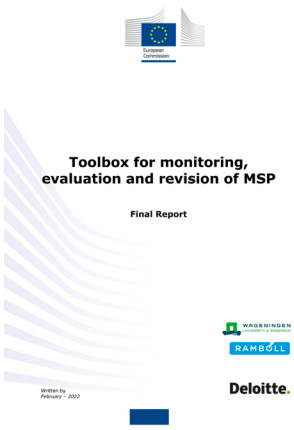


2014

The IOC **"Guide to Evaluating Marine Spatial Plans"** was developed in 2014 to assist marine planners and managers in integrating monitoring and evaluation into MSP. It is the first guide to specifically focus on M&E in MSP. The document emphasizes the importance of measurable and specific objectives, clear management actions, relevant indicators and targets, and involvement of stakeholders throughout the MSP process.

https://www.mspglobal2030.org/resources/key-msp-references/evaluating-marine-spatial-plans/

 **2017**	This guide was developed in 2017 as part of the Baltic Scope project. It specifically focuses on monitoring and evaluating transboundary dimensions of MSP. It presents a theory-based evaluation approach, indicators to support M&E of transboundary collaboration in MSP and steps for organising M&E. It also contains information on the role of stakeholders in M&E and logical frameworks and templates for designing evaluation. www.balticscope.eu/content/uploads/2015/07/BalticScope_EvaluationMonitoring_WWW.pdf
 **2020**	This guide presents a conceptual basis for monitoring and evaluation based on a review of literature. While conformance evaluation is important, it can be difficult to establish how a spatial plan affects the use of sea areas or the marine environment. Performance evaluation that regards MSP as a broad policy framework can partially circumvent the attribution challenge in that it sees the purpose of evaluation to firstly understand what MSP does and secondly measure the impact of MSP through a better understanding of the connections between objectives, planning decisions and outcomes. www.panbalticscope.eu/wp-content/uploads/2020/01/PBS-ME-Report-final.pdf
 **2021**	The new 2021 guide also advances the topic of monitoring and evaluation, describing specific but complementary approaches and methods to iteratively assess the different phases of the planning cycle. It provides examples on how to evaluate the planning process, the relevance of evaluating the plan and its implementation, reporting the results of evaluation, and options for revising MSP plans as a result of evaluation. www.mspglobal2030.org/msp-global/international-msp-guidance/
The EU MSP Platform Handbook on MSP Indicators Development (2018)	This guide helps to develop appropriate indicators for monitoring MSP processes and linking their outcomes to Blue Growth. It sets out a flexible approach with examples of possible indicators; these however need to be customised to the respective local context. https://maritime-spatial-planning.ec.europa.eu/news/msp-blue-growth-study-published

The BaltSpace indicator system (2015)	A monitoring tool that traces the links between maritime economic development and the environmental and socio-economic status of the planning area. It provides indicators for spatial efficiency, functionality of ecosystems, navigation, economic cost reduction and contribution to social welfare. www.baltspace.eu/baltspace-research/approaches-and-tools/integrated-indicator-system
 **2022**	Prepared for the European Commission, this report describes a collection of methods for monitoring, evaluating and revising maritime spatial plans. Apart from integrated methods, this includes methods on social, economic and environmental impacts, as well as methods that explicitly take a spatial approach, such as remote sensing and spatial data infrastructure. Social and economic methods include ecosystem services assessment, social impact assessment, stakeholder particpiation anlysis, SEA as well as input-output analyses. https://op.europa.eu/en/publication-detail/-/publication/02e564da-ba0a-11ec-b6f4-01aa75ed71a1/language-en

3. Monitoring and evaluation in eMSP

3.1. The conceptual framework

The complexity of MSP leads to potentially high levels of complexity in monitoring and evaluation. A systematic approach can help to reduce this complexity and break down M&E into manageable components. A systematic approach also reduces the danger of ambiguous outcomes and helps to communicate the intentions of an evaluation concept more clearly.

A conceptual framework was developed by the Community of Practice to provide an overview of the various dimensions of M&E that are likely to apply to all countries and systems in some form. The framework intends to make M&E more manageable for MSP authorities and suggests how M&E concepts and products could be structured and across what timescales.

The best knowledge gain will obviously be obtained if an evaluation process covers all the various dimensions of the framework. At the same time, assessing everything all at once may not be feasible for various reasons. The idea of the framework is therefore also a “pick and mix” approach, enabling MSP authorities to tackle individual dimensions or several in combination.

Looking at the sea areas covered by an MSP plan, several dimensions are relevant for monitoring and evaluating the plan and its performance:

- The sea itself – the planning area and its natural environment;
- Human activities in the sea – which sectors are using the sea in what way and with what future needs;
- MSP designations – how the plan is regulating the use of space (plan effectiveness);
- The planning process – the process of drawing up, implementing and revising an MSP plan and the involvement of stakeholders in this process;
- The regulatory frameworks for MSP and relevant policies;
- The coherence of the plan with the neighbouring plans.

The first dimension is the sea itself, comprising the planning area (space) and the marine environment. Monitoring the marine environment is a legal obligation in many countries, not least in the context of the MSFD, and there are likely to be existing monitoring programmes MSP can tap. Environmental monitoring is highly relevant for MSP as changes in the environment can lead to a need to revise an MSP plan, not least with respect to conservation designations. Environmental monitoring is also essential to determine whether the designations of the plan lead to unexpected impacts on the environment. Environmental monitoring is likely to gain more importance and urgency in the context of climate change affecting seas and coasts. The main question related to this dimension is: How is the plan affecting the environment and what are the relevant changes in state and knowledge?

The second dimension is concerned with the development of human activities in the sea. Over time, there are likely to be changes in how each sector is using the sea. New activities and technologies may emerge, new opportunities might arise for co-use, or some activities may be discontinued. This dimension is closely linked to (changing) policy goals but is concerned with the actual or prospective use of the sea and how the sectors themselves envision this. Once again, this may change in the light of climate change and the need for sectors to adapt to changing circumstances and policy goals. One example of a short-term change in how sectors are using the sea is the rapid expansion of offshore wind farming in response to the energy crisis and the need to mitigate climate change. Planners must ask what is happening in the maritime sectors.

The third dimension is about the plan itself and the designations it contains. This is about plan implementation, tracking whether the intended objectives of the plan are being achieved. We describe this dimension as monitoring and evaluating plan effectiveness. Are we reaching our goals?

The fourth dimension is concerned with the planning process and how this can be evaluated for iterative process improvement – comprising aspects such as stakeholder participation or process organisation and various other potential elements. How were stakeholders involved and how did the perceive this?

The fifth dimension keeps track of the policy and regulatory environment of MSP to evaluate the potential impact of legislative changes on the next round of MSP. A current case in point is the increasing strategic importance of offshore wind farming; another is the 30x30 targets set out in the 2022 Kunming-Montreal Global Biodiversity Framework and the European Biodiversity strategy. Keep an eye on how the frame of maritime spatial planning is changing.

Last not least, it is useful to monitor and evaluate the coherence of a plan with those of neighbouring countries. Coherence is required by the MSP Directive, but it also makes practical sense from an environmental and functional point of view, such as ensuring the cross-border coherence of linear infrastructure. Through international cooperation, planners must ask themselves: how do we align our developments?

Generally speaking, the purpose of monitoring and evaluation is to establish whether there are changes in these dimensions. If the developments that are being observed deviate from the assumptions the plan is making, a (partial) revision of a plan or other plan adaptation may become necessary, including outside the regular time frame.

Figure 5 shows the interplay of five dimensions within the conceptual framework based on a fictional example. Coherence is shown as an additional dimension as the further development of plans can only be successful through international exchange. Each dimension is handled separately, and each is related to a particular product. In this fictional case, all the dimensions come together in an all-inclusive midterm evaluation report after 5 years and a final evaluation report after 10 years.

The point is not that responsible authorities for M&E should strictly follow this example. Rather, it is intended as an example to show the possibilities, based on the assumption that relevant information will need to be gathered anyway. How exactly the various dimensions are handled and collated will always depend on each country and each planning round and the associated needs, legal requirements and resources. The conceptual framework therefore intends to encourage a more structured approach to designing M&E, not least to enable transparency and clarity to stakeholders on how the information was obtained.

The following chapters describe the dimensions of M&E in more detail. Each contains a brief introduction, one or more practical examples of how that dimension can be tackled and finally some suggestions of how this could be adapted to the individual needs of the users.

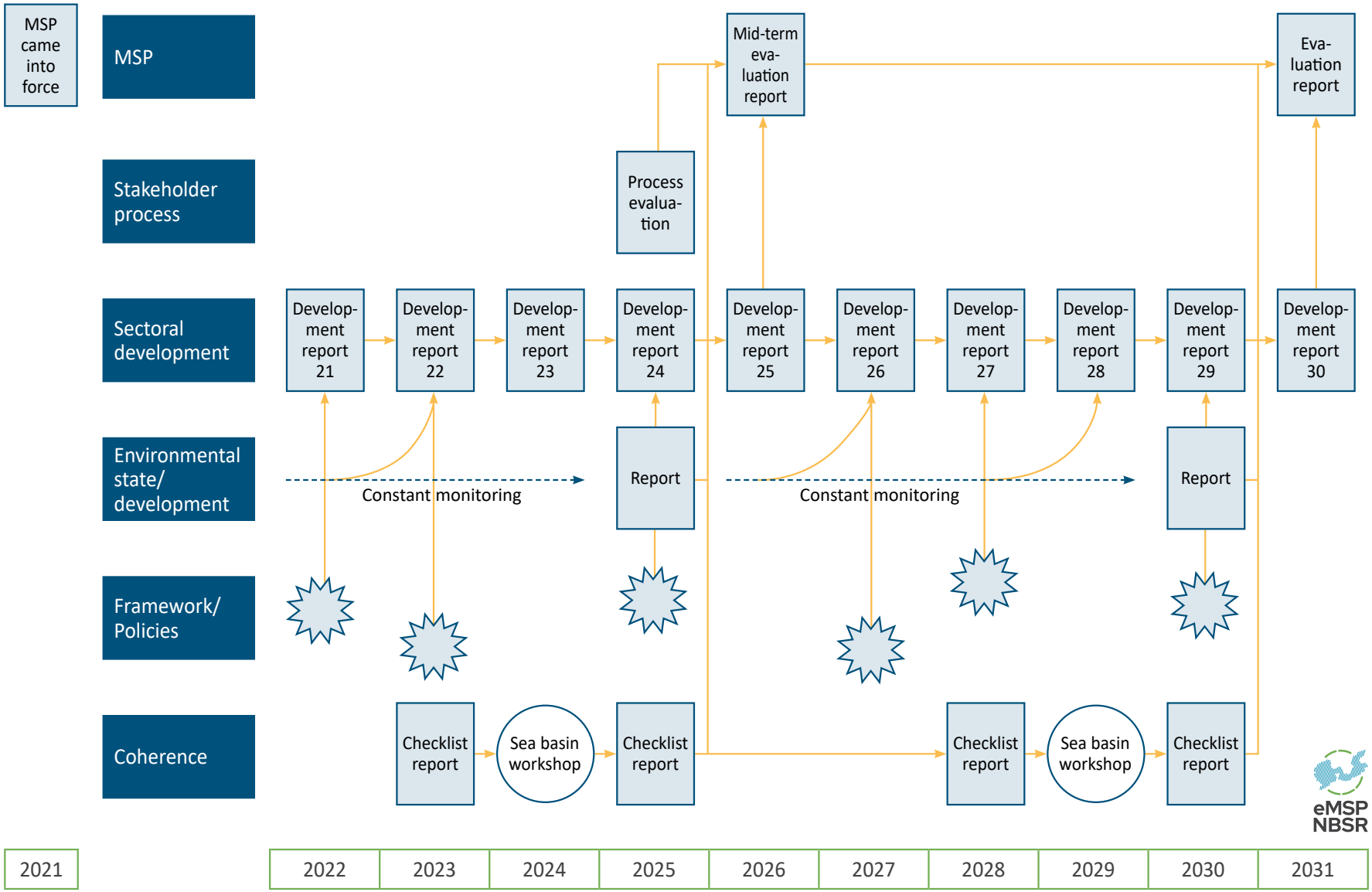


Figure 5: The conceptual framework for M&E: A fictional example of how a country could go about monitoring the different dimensions of MSP with related timescales and possible products.

3.2. Evaluating plan effectiveness

3.2.1. Introduction

Key terms: Efficiency, delivery and effectiveness

Effectiveness is the capability of producing the desired/intended result or the ability to produce a desired output. When something is deemed effective, it means it has an intended or expected outcome. Effectiveness should not be confused with efficiency which measures the productivity of reaching the desired effects/outputs. The focus of this chapter is on effectiveness as this is a core requirement of public sector interventions.

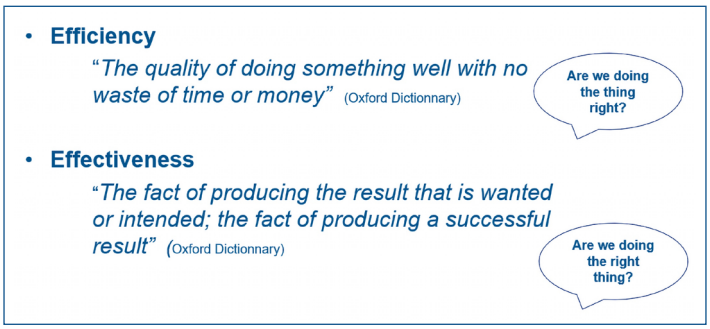


Figure 6: Differentiating between effectiveness and efficiency (Presentation of Ulrich Scheffler to the LS M&E of eMSP, 2023)

Effectiveness of MSP is a relative notion as the delivery of maritime spatial plans strongly depends on their character. For instance, strategic plans mostly focus on the principles that will be used in decision-making, setting out key values and the most important characteristics of the maritime space that should influence licensing processes. Sometimes possible synergies and conflicts are also identified. Regulatory plans, in contrast, usually allocate space to various uses. Plan implementation in this case takes form of zoning, accompanied by rules, restrictions and permissions for each zone and/or for the entire plan area. Different approaches to measuring the effectiveness of a plan may therefore be necessary, taking into account the varying impact logics of strategic and regulatory plans.

Key dilemmas

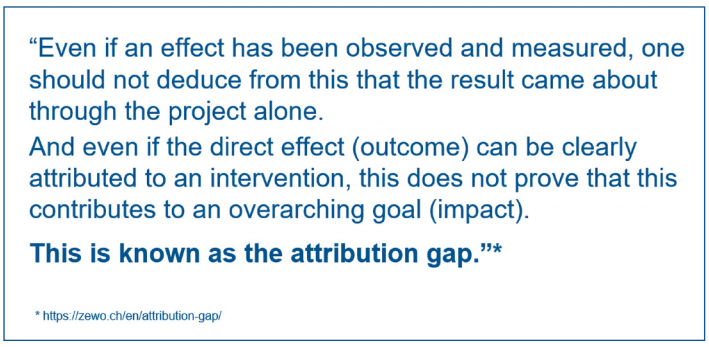


Figure 7: The attribution gap explained (Presentation of Ulrich Scheffler to the M&E LS, 2023)

Given the joint dilemmata of causality and attribution (see section 2), a key question is what actually constitutes effective delivery of a maritime spatial plan. Is it that maritime spatial development unfolds as desired by the plan? In this case, evaluation needs to ask what role is played by the plan in facilitating this development, requiring an impact logic to be constructed. Or is it rather the (successful) implementation of a set of rules and/ or zones that create the spatial preconditions for the desired development? There is no simple answer to this dilemma.

At the heart of evaluating effectiveness is the question whether the plan delivers on its original intentions. Although this may sound like a simple question, it can be tricky in practice as most plans contain a hierarchy of objectives. Intended outcomes can vary between countries; they can be more or less specific and also more or less spatially defined. Key aims are usually enshrined in legislation, so this can be a good starting point for defining effectiveness. In Germany for example, the Federal Spatial Planning Act sets out the core objectives of MSP in the EEZ and what it should deliver. One of these aims is to secure the safety and ease of shipping. The plan could therefore be considered effective if it contains spatial designations that keep shipping routes free of obstacles. German EEZ plans, however, are also designed to a) facilitate orderly spatial development, b) secure space for developemnt and nature conservation, and c) steer developments at sea or of the sea. Effectiveness could therefore also be seen as a combination of whether the plan supports particular patterns of maritime development and whether the designated zones steer developments in the intended way, as in the example of shipping routes.

The two examples described below show how evaluation of MSP effectiveness might look like in practice.

3.2.2. Examples from Germany and Poland

The German example (EEZ): Creating an impact logic

To evaluate the effectiveness of its MSP plans, Germany plans to carry out an ex-post evaluation to determine the extent to which the intervention (i.e., the plan and its designations) delivers the desired outcome. An intervention logic or theory of change is currently being created that outlines the causal sequence from the intervention to the desired effects (Fig. 8).

In this logic, the future vision for the sea represents the desired long-term impact of MSP. The plan's guiding principles and spatial planning objectives are designed to support that vision. However, the attribution gap is a concern when assessing the plan's effectiveness at the level of the vision as the plan does not necessarily contribute to it through direct

effects. Therefore, the German M&E system focusses on spatial planning objectives and principles as text or spatial designations. The German perspective is that the overall success of MSP is determined by whether it helps (in terms of spatial allocations) to reach the goal of sustainable maritime development[1].

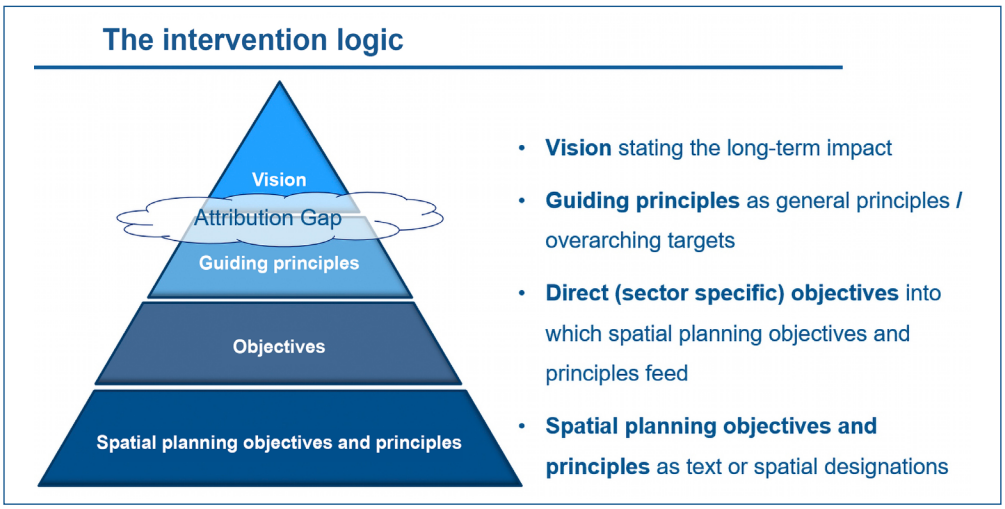


Figure 8: A general intervention model for the 2021 Maritime Spatial Plan for the German EEZ (Presentation of Ulrich Scheffler to the M&E LS, 2023)

MSP in the German EEZ is the overarching instrument in a multi-level planning cascade, with each subsequent level becoming more area and use-specific. MSP can thus be considered effective if it provides the spatial pre-conditions for sustainable maritime development. Because of its overarching perspective, it does not need to consider if an investment in a particular sector is happening. From this perspective, limited policy coherence does not jeopardize the effectiveness of MSP. MSP is not responsible for monitoring whether the designation of priority areas for offshore wind and tariff or grid policies facilitating offshore energy deployment support one another. Evaluation in Germany can only concentrate on whether the respective spatial needs set out in the objectives of the plan have been achieved. The impact logic for shipping, for instance, is that one of the guiding principles of MSP is to support shipping. At the level of objectives, this means that safety and ease of shipping are to be achieved, more specifically by establishing and securing a route network and by ensuring routes are kept clear of obstructions. Evaluation would therefore consider whether spatial planning objectives and principles (including priority and reservation areas) have been put in place to achieve this, while monitoring would track whether both are being implemented as intended (e.g., no licenses given to offshore wind farms in priority areas for shipping). A similar approach would then be taken for other sectors and principles, leading to an evaluation logic similar to the example set out below in the Pan Baltic Scope report (Varjopuro et al., 2019).

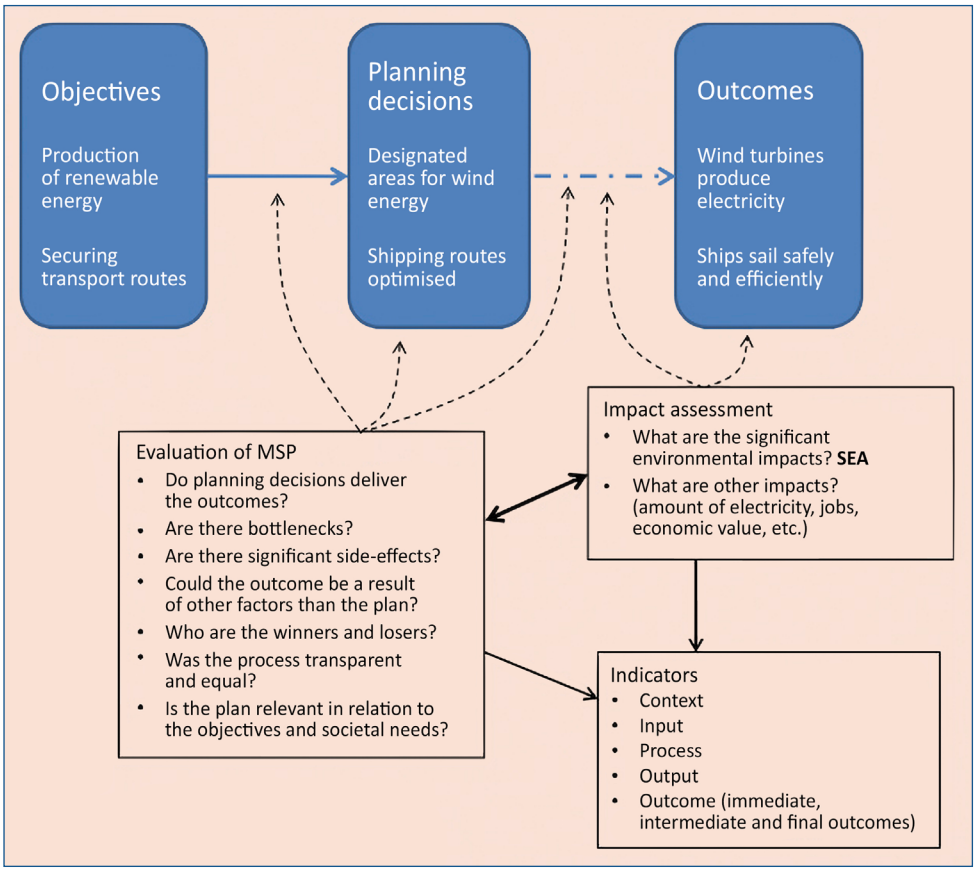


Figure 9: An intervention logic based on objectives, planning decisions and outcomes, using shipping and offshore wind farming as examples (Varjopuro et al., 2019, p. 34)

This approach is still a draft concept under development and has not yet been applied or tested in practice. The benefit of focusing on the designation level is that it is a feasible and practical approach. Figure 10 is showing the core message of different levels of the plan. By focussing on the most feasible level of the designations, answers can be given how they performed in force and over time.

Intervention logic – German MSP EEZ

Vision	Sustainable use of the sea
Guiding Principles	– International coherent planning and territorial co-operation – Land-sea interaction – Sustainable blue economy – Supporting shipping, maritime economy, research, security/defense – Contributing to protection of the marine environment & climate protection
Objectives	e.g. Shipping: Safety and ease of shipping – Establishing and securing a route network – No obstructions in the routes
Spatial planning Objectives & Principles	Designations in the MSP with regard to shipping – Priority areas, reservation areas

Figure 10: The proposed intervention logic for the 2021 Maritime Spatial Plan for the German EEZ (Presentation of Ulrich Scheffler to the M&E LS, 2023)

The Polish example: non-linear evaluation

In Poland, there is currently no formal system in place for monitoring the effectiveness of MSP. However, there have been some informal discussions between the maritime administration and academia regarding potential monitoring proposals. These proposals include periodic meetings with the general public (possibly bi-annually) to discuss the outcomes and performance of MSP, similar to the consultation meetings during plan preparation. They also include regular meetings of the various intergovernmental committees to discuss MSP effectiveness, the creation of a register of the decisions made by the maritime administration regarding licensing, the continuous possibility for stakeholders to provide suggestions to the plan, and the publication of a periodic interim report on the development of marine space. There is also a suggestion for regular scientific conference to present the outcomes of research on Polish MSP, organised by the Maritime Administration. It is also suggested that the two Maritime Offices agree on a joint approach to monitoring the development of Polish sea areas, similar to their efforts during the preparation of the draft maritime spatial plan, at a scale of 1:200,000.

This process-oriented monitoring approach aims to determine to what extent the existing plan satisfies stakeholders' needs and expectations, and whether any radical changes in the current trends and direction of maritime space development can be expected. Given the current changes in cargo shipping resulting from the situation with Russia, maintaining contact with stakeholders and implementing MSP monitoring that is sensitive to such changes is essential.

Although this type of monitoring is less systematic, it is future-oriented and flexible. However, it also requires larger resources, in terms of time and political commitment, compared to the German model. The main disadvantage of the Polish proposal is that it assigns potentially higher weight to well-organized stakeholders who can represent themselves well during the evaluation process, i.e, those that have the necessary monitoring tools, knowledge (analytical capacity), and access to politicians. Additionally, a purely stakeholder-based evaluation approach may be problematic as it may be less coherent than the intervention logic of the German example. Smaller countries may also face capacity issues if they are required to deliver a marine development report every year or every second year.

3.2.3. Other options

Latvia

The German and Polish proposals can be combined, as exemplified by Latvia's approach. According to Latvian law, the Ministry responsible for MSP should prepare a report every

six years on MSP implementation, while a Working Group composed of representatives from various ministries, agencies, planning regions, and associations meets at least once a year to monitor MSP implementation using a predefined framework based on three strategic objectives and 16 measures (Pan Baltic Scope 2020, www.panbalticscope.eu/wp-content/uploads/2020/01/PBS-ME-Report-final.pdf. In addition, surveys are conducted to inform discussions on MSP effectiveness, and input, process, and output indicators are agreed upon ex ante. Therefore, in Latvia, the relevant public authority monitors MSP effectiveness itself, as in Germany, while the work is discussed with a broader set of stakeholders, as proposed in Poland. Many parts of the monitoring process are predefined.

Scotland

The UK has one of the most comprehensive M&E frameworks in Europe. In Scotland, an M&E framework provides high-level guidance on monitoring the implementation and effectiveness of National Marine Plan (NMP) policies. This uses feedback from public authorities, stakeholder feedback, and existing M&E programmes. The assessment done in 2018 and 2021 (every three years since the adoption of the NMP in 2015) comprised several elements of work:

1. Extensive stakeholder engagement to collect qualitative information/insights on how the NMP was used and the effectiveness of policies. The findings from the questionnaire informed the structure of a multi-stakeholder workshop hosted by the Scottish Coastal Forum (SCF) and formed the basis for interviews with Marine Scotland Licensing Operations Team (MS-LOT) and other public authorities.
2. Interviewing MS-LOT staff identified how the policies of the Plan have been reflected in licensing and consent decisions affecting the marine environment. Decisions and correspondence were screened for consistency of arguments and interpretation of policies.
3. Reviewing the environmental baseline set out in Scotland's Marine Atlas 2011 using information and data from wider monitoring programmes and wider available data. There is a legal requirement to prepare an assessment of the condition of the Scottish marine area to inform the review and possible update of the Plan. Scotland's Marine Assessment 2020 is this required assessment, and the results of the assessment done in 2018 are available online (https://marine.gov.scot/sma/assessment-theme/assessment-and-scotlands-national-marine-plan)

Based on the responses to the M&E process, it was found that some public authorities were applying the Plan thoroughly to their decision-making and service delivery, while others were not doing so consistently. The statutory M&E conducted in 2018 and 2021, along

with internal and external stakeholder feedback, led to the recognition of a need to update the existing Plan (of 2015) to better address emerging issues and adapt to the changing policy landscape in Scotland, the UK, and wider Europe.

England

In England, monitoring is based on both existing data and information collected through stakeholder surveys and internal agency processes. The entire monitoring process is based on statutory requirements and has been carefully designed. The same statutory base helps to ensure similarity with Scottish (but also Welsh and Northern Irish) efforts in this regard. The focus of M&E is on the application of policies specified in the plan for licensing marine activities and their contribution to achieving the plan's objectives. Monitoring results are used to provide recommendations related to changes in the plan, monitoring system, and/ or support for maritime plan implementation.

Figure 11: The current reporting frequency for marine plans in England (MMO, unpublished)

Summarizing the outcomes of the eMSP discussions, the following preconditions for evaluating MSP effectiveness can be emphasized:

1. Addressing the attribution gap: Stakeholder discussions can reduce uncertainty and determine whether the MSP is changing the behaviour of actors.
2. Maintaining regular contact with stakeholders, not just during statutory consultation periods, is beneficial for ongoing monitoring efforts.
3. Monitoring should be conducted systematically, rather than on an ad hoc basis.
4. Balancing the feasibility of monitoring with theoretical bases that underpin

monitoring efforts is crucial. Complex monitoring systems, which adhere to the logic of the relationship between objectives, planning decisions, and outcomes and utilize various types of indicators (including output and outcome indicators), are accurate in terms of their theoretical background, but they require immense resources and not easily obtained information that can be difficult to interpret. Therefore, a more pragmatic approach, as proposed in Germany or Poland, should be considered.

3.3. Evaluation of the planning process and stakeholder participation

The MSP Directive (2014) does not give a precise recipe for what the MSP process should look like. Rather, it sets out minimum requirements for maritime spatial planning, leaving it to the competences of individual countries to shape the planning process according to national legislation and planning routines. Over the past years, many international projects and organisations have elaborated guidelines on what the MSP process, especially public participation in this, should look like to ensure transparency, fairness and justice of planning choices and solutions.

This chapter gives examples for how an MSP planning process could be evaluated for iterative process improvement – comprising aspects such as stakeholder participation or process organisation and various other potential elements.

3.3.1. Evaluating stakeholder participation in developing MSP plans: An example from Sweden

In June 2021 the Swedish Agency for Marine and Water Management (SWAM) published a report titled *„Evaluation of participation in the first marine spatial planning process (2012-2019). What do the stakeholders think about the process?“*

The report presents the results of an external evaluation of stakeholder participation in the process that led to Sweden's first MSP plans. It was carried out by researchers from SwAM, Gothenburg University, Nordregio and others and used the experiences of process participants as a starting point. The aim was to see how the process was perceived and to develop suggestions for how the various parts could be improved to benefit future planning cycles.

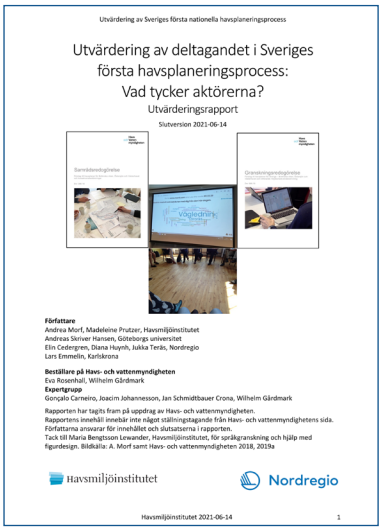


Figure 12: "Evaluation of participation in the first marine spatial planning process: What do stakeholders think about the process?" Swedish Agency for Marine and Water Management, 2021

The evaluation was based on a combined framework and multicriteria methodology based on practical questions by the planning authority and theory-based criteria. An important focus was on aspects that create trust in the process, such as access, voice, influence and contextualisation. The main source of information was a web-based survey with ~100 respondents from key stakeholder groups in the process, including central authorities, county administrative boards, regions, intermunicipal bodies and municipalities, interest organisations, companies, and research bodies and universities. Additionally, semi-structured interviews were conducted with eleven people. The survey and interviews were supplemented by document analysis including a review of current academic literature.

The research indicated i.a. that:

- The Swedish process has been open, transparent, clear and compliant. It has gone beyond the minimum legal requirements set up in the Marine Spatial Planning Ordinance and the Environmental Code in a meaningful way. Before the statutory consultation and MSP review, consultation took place at the early planning stages to discuss the state-of-the-art and a roadmap. A Strategic Environmental Assessement was also carried out.
- In general, the respondents were satisfied with the communication about maritime spatial planning and the feedback from planning authorities - it was assessed as professional, clear and fast, even at the personal level.
- Over half of the respondents were satisfied with the process as a whole, with only one in ten partially or completely dissatisfied. The most satisfied are those being formally involved in line with the Marine Spatial Planning Ordinance: central authorities, county administrative boards, municipalities, municipal cooperation bodies and regions.

- Most stakeholders have engaged in the more formal steps of the planning process (consultation and review) and were satisfied with the timeframes and methods. Stakeholders say that their participation has increased in recent years, mainly through meetings, consultations and submissions. They also felt that access to the process was open.
- Just over half are satisfied with how planning authorities have considered their views throughout the marine spatial planning process. The least satisfied are industry, companies and interest organisations, as well as some central government agencies and municipalities.
- The Swedish planning authority has succeeded in creating trust among most of the stakeholders, with lower levels of trust expressed by industry, interest organisations and companies. These have also been the least activated and represented in the planning process; they also provided the most negative responses to other questions.
- A number of actors have been underrepresented in both the planning process and the evaluation: the general public, politicians and companies, industry and interest organisations. Some national authorities have participated but feel they should be more involved next time. Some county administrative boards and municipalities also feel that their participation could be further developed.

As an added value, a large number of constructive suggestions were received on participation and improvements to the process as a whole. The report outlines 11 recommendations for future planning processes, e.g.:

- Improve the MSP framework by creating broader awareness of MSP. Maintain engagement beyond the formal process requirements and create conditions for more continuous follow-up and systematic documentation for the next round of maritime spatial planning.
- Further promote transparency and clarity by deepening stakeholder analyses. Establish a communication plan to enable continuous communication and add the respective competences and resources. Develop the website for maritime spatial planning and other channels to reach out to stakeholders and the general public.
- Find out why certain groups were less satisfied and showed less trust.
- Provide more continuous resources to increase skills and build capacity (competences) to participate in and contribute to maritime spatial planning.
- Turn planning documents into “live” documents and make them even more accessible. Develop accessible and user-friendly process documents and link them to digital platforms. Make a “light version” of key documents and a guide to maritime spatial plans for different stakeholder groups.

- Ensure that goal conflicts and synergies are managed at the right level.
- Create a learning system - allocate time and resources for continuous monitoring and evaluation in collaboration with other actors, including researchers, and link this to the international level in terms of method development and learning.

How Poland applied the Swedish method

In 2023, the Swedish approach was adapted for Poland as part of the eMSP project. As in Sweden, a questionnaire survey was designed for stakeholders, taking into account published academic articles that explore aspects of distributive justice. The survey questions were developed in consultation with representatives of the maritime administration (the Ministry of Infrastructure and the Maritime Offices in Szczecin and Gdynia).

The survey was conducted in May-July 2023. The questionnaires were sent out in two ways - by the Maritime Office in Gdynia to the Institutions legally required to give responses to MSP documents and by the GMU Maritime Institute to stakeholders, who represented various maritime sectors or research institutions. In addition, information about the survey was shared on LinkedIn. Surveys were sent to a total of 212 e-mail addresses (20 addresses are no longer active). There were forty-seven responses, resulting in a figure of 22% of all surveyed. Seven persons took part in an In-Depth Interview.

Some challenges were met when performing the research.

At the level of survey distribution:

1. the provisions of GDPR proved problematic, which did not allow the addresses of those who participated in the original consultation to be used for research. Such GDPR requirements should be considered from the very beginning in MSP processes to allow for post-process evaluation.
2. the stakeholders' database was not updated – some addresses were no longer active.

At the level of responses received:

3. It became quite clear that the timing of such research is of great importance. One of the reasons for the low level responses were frequent job/career changes, career promotions and changes of workplaces. The Polish MSP planning process ended in 2019, and many people involved in the process are no longer involved with maritime developments. These factors have a huge impact in terms of loss of institutional memory. This experience leads to the key conclusion of the study, namely that the maritime planning process should be continuous, as indicated in other scientific studies.

4. The results of the survey also indicate that many respondents no longer remember details of the planning process, and as a result they have difficulties in evaluating the process. At the same time, four years after the end of the planning process is too early to estimate the actual impact of the MSP plan, i.e., does it deliver and meet expectations. This highlights the difficulties of combining evaluation of the planning process and plan effectiveness in a single study. Hence, evaluation of plan effectiveness should be repeated in a few years.

In general, the assessments are positive about both the plan itself and the planning process. The results differ from the results of studies carried out by scientific teams (Ciołek et al. 2018; Tafon et al. 2023; Piwowarczyk et al. 2019), which were largely based on interviews with people who were not involved in planning processes, hence their probably more critical approach.

The In-Depth Interviews showed that most of the interviewees are satisfied with the planning process and with the communication with MSP authorities. The planning process gives them opportunity to understand marine issues and the level of their awareness has increased.

Based on the survey results, the In-Depth Interviews, and the experience of the authors of the Polish MSP and the authors of the EIA report, three types of recommendations were developed:

1. for the future planning process and the shape of the plan (addressed to the maritime administration);
2. for monitoring (addressed to the maritime administration, for scientists, for sectors);
3. for cooperation mechanisms (addressed to maritime administrations).

The Polish report on the assessment of public participation in MSP is available separately from eMSP NSBR project website.

3.3.2. Other options

Assessing social justice in MSP

According to the 2014 MSP Directive (Article 5), Member States should "consider economic, social and environmental aspects to support sustainable development and growth in the maritime sector" when designing MSP. While the economic and environmental dimensions of sustainable maritime development have been extensively discussed, and various ways have been proposed for their conceptualisation and implementation, the concept of social sustainability in MSP has only recently been subject to more intensive scrutiny and validation

(Saunders et al. 2019;2020; Gilek et al. 2021; Grimmel et al. 2019)). This is in line with trends in terrestrial planning where “social” and “justice” concerns are increasingly referred to in policy (including for example the European Green Deal or the US Green Deal). Presently, “social justice” is commonly referred to through the lenses of participation, knowledge and power, which may not cover all aspects related to social justice. For MSP planners, the key challenge is to make social sustainability and its assessment more tangible.

Based on a comprehensive literature review, Gilek et al. (2021) revealed that the scientific discourse on the concept of blue social sustainability only has limited impact on MSP practice so far, meaning the academic discussion in this field is „decoupled from practical development of marine governance.” To fill in this gap the more practice-oriented concept of social sustainability (blue justice) in marine governance and MSP was proposed by these authors (Saunders et al. 2020) (Figure 13). It is composed of three components that interact each with other: recognition, representation and distribution.

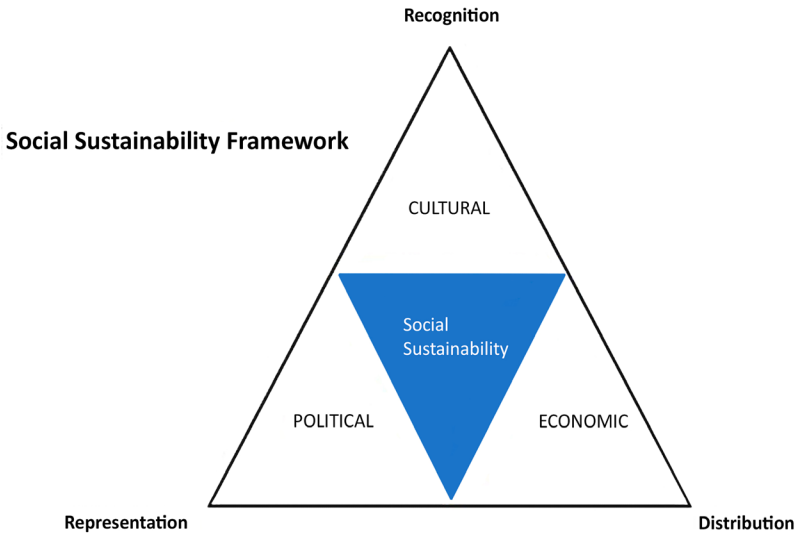


Figure 13: A conceptual framework for assessing social sustainability and justice in MSP (from Saunders et al., 2020)

Recognitional justice is related to “who counts” in plan-making. It focuses on recognising the plurality of values, identities, cultures, knowledges, rights, and institutions that are involved in MSP, as well as structural forces that define the terms of stakeholder engagement. Planners need to be aware of properly identifying relevant stakeholders and their respective needs, giving particular attention to the least organised and least powerful groups. Related questions include:

- Who is recognised in MSP legislation and who is left out?
- Who are vulnerable and less organised actor groups?
- Who dominates the use of sea space?
- Who is left out or feels discounted?

Here one should be aware of the institutionalized patterns, administrative routines, structures, policies, and practices that augment or create social inequities within the MSP process. For instance, in many countries existing MSP legislation prioritises certain groups of stakeholders (usually public authorities) in that it requires them to be involved in MSP; some of these authorities are even endowed with veto power. Examples from various countries show that small-scale fishers and tourism often feel discounted, the latter because it is difficult for tourism and recreational organisations to come together in larger interest groups across larger coastal and marine spaces.

Representational justice asks "who gets heard" and means the real power and influence the various groups enjoy in MSP decision-making. Power and influence stem from their available resources, access to key decision makers and know-how related to participation in various administrative processes. In reality, participation of the groups with well recognised stakes can be very weak due to various reasons; vice-versa poorly recognised stakeholders can exert real influence on the outcome of the MSP process if their participation is very active. Thus, recognition can be summarised as the notion that shows who is included and who is excluded in decision-making and for what reasons (e.g. social and cultural status of various social groups). Related questions planners can ask include:

- Who is targeted through MSP communication in what way?
- Who actively involves themselves in MSP processes and who is a passive participant, and who is encouraged to participate by authorities?

In Latvia, national authorities used targeted communication to actively involve self-excluded stakeholders, which in this case were OWE developers and smaller ports. At the same time, coastal municipalities attended the MSP process as passive participants and did not involve themselves as active developers of the plan, creating "the illusion of equal partnership" (Tafon et al. 2023a).

Distributive justice essentially asks "who gets what" and refers to the fairness of allocations of outcomes and costs of the MSP process. This requires planners to ask who actually benefits from a plan (and in what way) and who takes on the lion's share (and what kind) of burdens; it also requires asking how stakeholders perceive the distribution of benefits and burdens. Questions related to distributive justice include:

- Is the planning system responsive to public demands if and when such demands emerge? For example, are plans capable of integrating the demands of small-scale fisher?
- How to balance wider societal benefits (e.g., OWE) against local community concerns (e.g., coastal tourism)?

- How much room do planners have to design MSP in response to changing needs/ demands?

In practice, local community interests can sometimes be lost in MSP processes and with them the possibility to influence the distribution of risks and benefits.

The same group of authors has recently added **capabilities** as the fourth dimension of blue justice (Figure 14). This asks "what the marginalised are able to do" and thus refers to the capacity of actors, or lack thereof, to be present and represent their interests in MSP and other ocean governance processes. Importantly, this includes both human and non-human actors, the latter most easily understood as the various life forms and biological processes existing in the ocean.

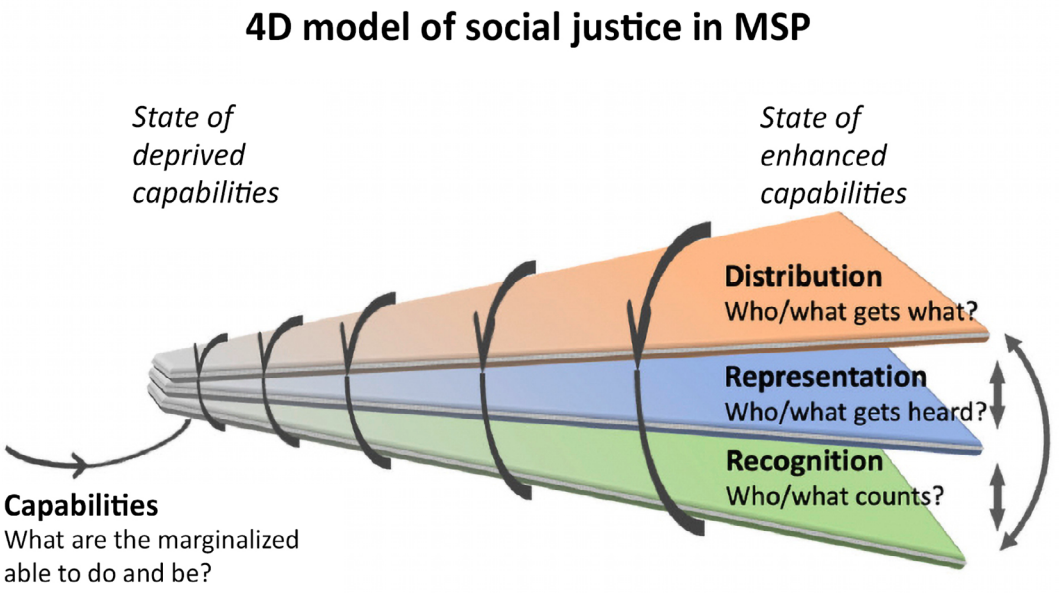


Figure 14: A 4-dimensional conceptual model of blue justice in MSP (from Tafon et al., 2023)

As far as human beings are concerned, the notion of capability also means ability to live a dignified and good life and to respond to stressors in a proactive way. For non-humans, it means the existence of a well-functioning marine ecosystem that allows life forms and biodiversity to flourish. Thus the core of the concept is formed by the relationships people have to the sea and the material and non-material well-being of people and non-human life.

An inclusive approach – the example of Finnish MSP Coordination Group

The Maritime Spatial Plan 2030 for Finland consists of three maritime spatial plans in three planning areas. From the very beginning the Finish MSP process was lead in an inclusive

and collaborative way. In order to prepare the process, the eight coastal regional councils, together with civil servants from the Ministry of the Environment, formed a formal structure called the **MSP Coordination Group**. It consists of smaller expertise-related groups such as a GIS group, a communication group, and steering groups covering multiple MSP projects. The activities of the group also involve a wide range of maritime stakeholders and experts. The MSP Coordination Group continues to work despite the adoption of the Maritime Spatial Plan 2030 for Finland, focusing on monitoring and preparing for its updating.

The MSP Coordination Group manages the Finnish MSP website which is a main tool of communication with interested parties, a platform for discussion, public consultations, and room for all the MSP information that is needed, including an interactive map (ArcGIS online). The website is also available in English and is regularly updated (www.merialuesuunnitelma.fi).

The participatory planning leading to the first Finnish MSP, engaged about 350 of maritime stakeholders during the Scenario phase, and 380 maritime stakeholders while developing the Vision 2050.

In one of her presentations, Mari Pohja-Mykrä - the Coordinator of the Finnish MSP Cooperation Group - evaluates the success of the Finnish collaborative MSP process. The main advantage of such approach is building social capital and creating a shared understanding and shared vision of marine areas. Collaboration is also essential in order to have coherent planning among coastal regional councils and to meet regional maritime stakeholders' needs.

Mari Pohja-Mykrä also highlights some challenges which need to be addressed further, like the need to reach out to more local stakeholders and the difficulties in elaborating a shared vision for such a vast marine area (very long coastline and eight regional councils with different development visions).

3.4. Observing sectoral development

Human activities in the sea and within maritime sectors change over time. Events in 2022 have shown that change may be faster than expected and that MSP may be required to respond quickly to newly emerging demands on marine space. Observing the development of all sectors relevant for MSP is therefore important as it feeds the knowledge base for future plan revision processes.

Within the M&E conceptual framework, the dimension of "sectoral development" refers to spatially relevant direct and/or strategic changes of the sectors that make up the blue economy. This might include plans to expand the sector's activities, technological change

which could lead to different spatial requirements or intensities of use, or policy change with more long-term impacts on patterns of use. Addressing this dimension not only leads to better knowledge about imminent or expected changes, but also – depending on how the process is designed – to stronger integration of stakeholders.

Examples of how to observe sectoral development are provided in chapter 3.4.1 from BSH, Germany with the "Spatially relevant developments in the German Exclusive Economic Zone in the North Sea and Baltic Sea – Annual Report 2021" and the Latvian Marine and coastal spatial planning coordination group in chapter 3.4.2.

Various options exist for observing sectoral developments as part of an M&E concept. In general, options depend on the legal provisions in the country as well as the ambition and the available resources of the responsible institution. Some MSP plans – for instance, the German EEZ plan - provide for continuous monitoring of relevant sectoral concerns. There may thus be a legal need to observe sectoral developments in the sea; if so this should frame any concept for sector monitoring and observation.

Observing sectoral developments in MSP needs to focus on the development of those maritime sectors relevant to MSP. Which sectors could be interesting for regular observation is dependent on the national conditions, the respective institutional framework and the scope of MSP. The mere act of collecting this information can have useful side effects, such as highlighting previously underrepresented connections of sectors to the plan or planning area. Information collected can help identify any need for plan revision caused by sectoral development and thus support the evaluation of the plan.

Sectoral development can be interpreted in different ways (e.g. changing spatial requirements, changing technology, changing economic impact etc.) and may not be the only dimension covered by sector observation. **Climate change** is likely to add an important new dimension as sectors respond to and anticipate the impacts of climate change on coasts and seas (e.g. sea level rise, shifting species and habitats, increased storminess) but also respond to calls for climate change mitigation (such as expanding offshore renewables).

While the regularity of sector observation and/or associated reports is best determined as part of an overarching evaluation concept, some flexibility may be needed to accommodate growing processes. Awareness is also needed of other ongoing monitoring processes to avoid duplication of effort (see the example of Latvia below).

How observational data is collected – and the degree of stakeholder involvement - depends on the objectives and the available resources. The most likely information sources are

publicly available data and publications by third parties, as well as in-house information collected by the planning authority itself. Other ways of gathering information are regular national or international surveys of partners and stakeholders. A list of questions regularly sent to stakeholders can generate more information but is also more time-consuming for stakeholders to deal with. The Latvian example in section 3.4.2 shows the living involvement of stakeholders serving multiple purposes. An (annual) stakeholder conference on the status of the maritime sectors could also be an option of collecting relevant information. Last not least, stakeholders can be encouraged to proactively submit relevant information to the planning authority.

Links to the ecosystem-based approach

Observing sectoral development can contribute to **stakeholder involvement and transparency** as well as gathering the **best available knowledge**. Both key elements of the ecosystem-based approach.

In terms of observation intervals and frequency of reporting, the German example set out below is designed as an annual series of publications; in contrast, the Latvian example shows a series of meetings. Annual reports and regular meetings lead to a chronological overview of changes over the years, supplying planners with a broad information base that can be used for plan evaluation and revision, but are time-consuming and may not always be practical (see also chapter 3.7 on the English and Scottish approach to M&E).

Both the German and Latvian examples are resource intensive, and other, less extensive options are clearly conceivable. The most important aspect is a certain regularity of data gathering and reporting and transparency in data collection. Scope, frequency, products and stakeholder involvement can all be adjusted to meet any national legal requirements and/or resource contexts.

3.4.1. Observing spatially relevant developments in the German EEZ in the North Sea and Baltic Sea – an annual report

In early January 2023, the Federal Maritime and Hydrographic Agency (BSH) published the first edition of its new annual report on spatially relevant developments in the German EEZ. This new annual report summarises developments and changes in the German EEZ of the North Sea and Baltic Sea for each year, with the first report covering 2021. The document is publicly available on the BSH website:
https://www.bsh.de/EN/TOPICS/Offshore/Maritime_spatial_planning/_Anlagen/Downloads/Jahresbericht_AWZ_2021_EN.pdf?__blob=publicationFile&v=2

Background and objectives

The EU Directive on Maritime Spatial Planning requires a review of the plan at least every ten years. This requirement is implemented in German law in the Federal Spatial Planning Act, which stipulates that spatial plans are to be reviewed at least every ten years.

On 1 September 2021, the revised maritime spatial plan for the German EEZ in the North Sea and Baltic Sea came into force and replaced the two predecessor plans (North Sea, Baltic Sea) from 2009. An explanatory memorandum was published with the ordinance, which states that the plan as a whole should be evaluated and, if necessary, updated at five-year intervals. The plan itself also provides for continuous monitoring of the relevant sectoral concerns.

The new annual report is primarily designed to be an information and knowledge base, which can be drawn on for evaluation purposes. It addresses political decision-makers, public administration and the professional public as well as stakeholders in the sectors. The report is descriptive and does not evaluate the observed developments in any way. For the BSH as the MSP authority, the knowledge gathered in this report supports the assessment of whether the plan needs to be adapted.

Scope

The report focuses on developments in the sectors operating at sea, changes in the political and legal framework and the state of the environment in the North Sea and the Baltic Sea. However, the report does not claim to fully reflect all developments in a comprehensive way; in particular, it is not a full environmental monitoring report.

Spatially, the report primarily covers the German EEZ in the North Sea and Baltic Sea. Where spatially significant developments have taken place in the German coastal seas and neighbouring marine areas, these have also been included.

The content of the report is based on third parties' reports and the BSH's own literature research covering publicly available sources and publications. The literature research is supplemented by enquiries with maritime stakeholders.

The observation period for the current report is primarily the year 2021. Developments at the beginning of 2022 have been included if they are of particular importance for the marine areas.

Examples of content

The chapter ***"Political and legal framework"*** describes changes that have taken place in 2021 at the international and national level. For example, 2021 was an election year

in Germany, and the new government's coalition agreement had significant influence on developments at sea through a new and strong priority for offshore renewables, including a new national hydrogen strategy. 2021 also saw changes at the international level, such as the publication of a new Baltic Sea Action Plan or the "Fit for 55" package of the European Union (designed to reduce greenhouse gas emissions). The report briefly describes each of these policies and sets out how they are relevant for maritime space. The same applies to developments in neighbouring countries (for example, reference is made to the Additional Draft North Sea Programme 2022 – 2027 in the Netherlands) and in nature conservation, where the report describes the status of the development and implementation of management plans for German MPAs for example.

The chapter ***"Main developments in the sectors"*** focuses on the sectors covered by the EEZ plan. Sectors covered include shipping, offshore energy, cables and pipelines, raw material extraction, fishery and aquaculture, scientific use, defence, aviation, recreation, as well as other relevant or emerging topics not specifically covered by the plan. Each section begins by listing the data and information sources used for compiling the section and by providing a brief overview of the sector (e.g its economic importance), its current situation (e.g. status of licensing) and general trends. For aggregate extraction for example, the report outlines all potential extraction areas (secured by means of reservation areas in the EEZ plan, and with approved extraction licences), actual extraction taking place or commencing in 2021 and in which areas, and plans of the sector to no longer extract in certain areas. For shipping, the report presents the latest data on the shipping volume observed in the priority and reservation areas for shipping, the current status of commissioned research, and the expected impacts of other developments on shipping, including for example how offshore wind farm development might affect existing cross-border shipping routes. An important principle for all sectors is that only information with relevance to the MSP plan is gathered, i.e. information on developments that are spatially relevant, either with a view to existing or potential future spatial regulations.

The chapter ***"Marine environment"*** lists new data and information that has been gathered since the publication of the SEA for the plan, as well as reports published and environmental surveys carried out by the BSH and third parties.

The chapter ***"Cross-cutting topics"*** briefly summarises other relevant reports and assessments that have been published in the reporting year, such as the technical report published by BirdLife International on MSP in European Member States.

3.4.2. Observing spatially relevant developments within the Marine and Coastal Spatial Planning Coordination Group in Latvia

Martins Grels and Marta Stube

Various stakeholders were involved in the process of MSP development in Latvia. On 10 January 2014, the MSP Working Group was established by order of the Minister (Ministry of Environmental Protection and Regional Development of the Republic of Latvia). The MSP Working Group was established to ensure regular involvement and participation of government institutions, planning regions, coastal municipalities and public representatives in the marine spatial planning process, ensuring coordination of sectoral interests and exchange of information. Additionally, some land-sea interaction topics were discussed in the Coastal Cooperation and Coordination Group that was established before the MSP Working Group.

By Order No. 1-2/171 of the Minister of Environmental Protection and Regional Development of 25.11.2022, the Marine and Coastal Spatial Planning Coordination Group was formed by merging the two pre-existing working groups.

The Marine and Coastal Spatial Planning Coordination Group and its role in Latvia's MSP implementation, evaluation and drafting of the 2nd generation MSP

Latvia's first MSP plan was adopted on 21 May 2019 by Cabinet of Ministers Regulation No. 232. The same regulation also requires interim assessments of MSP implementation to be carried out, along with proposals for updating the plan. 30 December 2023 and 30 December 2029 were set as due dates for these assessments. The first interim assessment of Latvian MSP implementation is in progress.

The MSP Working Group and Coastal Cooperation and Coordination Group were merged because the issues they addressed often overlapped and involved more or less the same stakeholders. The new Coordination group now serves as a platform for discussions with formally designated members of the group, including national authorities, regional authorities, coastal local municipalities, NGOs, as well as additional invited guests (both speakers and participants) for discussions on specific topics that are on the agenda of the meeting. Currently the Coordination group's main task is to reflect on the MSP implementation process and to accompany the preparation of the first MSP interim assessment, which is a step by step process and addresses specific topics related to MSP.

2022 saw three Coordination group meetings to support and discuss specific topics related to the MSP interim assessment:

25.11.2022: The first meeting of the Coordination group discussed information on the preparation of the interim assessment of the Marine Plan, possible updates of the plan, stakeholder involvement and MSP supported and related projects.

17.02.2022: The second meeting of the Coordination group had three main agenda items, namely shipping, offshore energy and national defence interests in maritime spatial planning.

28.04.2022: The third meeting of the Coordination group again had three main agenda items, this time fishing, marine aquaculture development and mineral and hydrocarbon resource extraction interests in maritime spatial planning.

At least two more thematic Coordination group meetings on different topics are planned in the process of drafting the interim assessment during 2023.

3.5. Environmental monitoring

In EU countries, environmental monitoring is mandatory for plans and their implementation. Article 10 of the SEA Directive (2001/42/EC) states that:

1. Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.
2. In order to comply with paragraph 1, existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring.

In addition to monitoring the significant environmental effects of MSP implementation, monitoring can (and should) cover other or general changes in the marine environment. This is particularly important in the context of climate change and the expected environmental changes this will bring. Being aware of changing baselines is important for the next planning cycle, especially when observed changes might lead to a (part) revision of the plan.

The authority responsible for environmental monitoring in the sea may not be the MSP authority. In many cases it is the authority responsible for nature conservation. Often, environmental monitoring is linked to implementation of the MSFD Directive. A regular exchange between the respective competent authorities is therefore essential.

In the fictional example of an M&E system in Figure 5, environmental monitoring is shown as constant monitoring, resulting in regular reports after several years which can be taken up for (midterm) MSP assessment and evaluation reports. This of course is only one

available option and can be adapted to how information is gathered by the MSP authority and others.

When it comes to the environmental impacts of the spatial designations and regulations contained in a plan, the responsible authority needs to draw up a scoping report to guide the SEA; this needs to be in line with any national MSP framework. The scoping report should state what needs to be monitored in order to determine the effects and impacts of the plan and its designations.

For an integrated perspective, environmental monitoring should ideally include ecosystem services, ecological functions of the sea and a cumulative impact assessment. As ecological functions and environmental impacts can cross borders, a sea basin perspective is useful. For this to be feasible, further research and the development of tools and communication structures is necessary. New and upcoming AI tools can support environmental data analysis. The main question is always how the plan and its provisions is affecting the environment and what are relevant changes in the environmental state of the planning area (and beyond) and knowledge.

Offshore wind energy is the most dynamic sectoral use developing in the North Sea and Baltic Sea. It is therefore worth highlighting what kind of environmental monitoring is already taking place in this sector and how this could be used as a core building block for environmental monitoring in MSP. Two national examples of sectoral monitoring are presented below. It goes without saying that environmental monitoring in MSP should cover more sectors than offshore wind energy.

3.5.1. Germany: Using standards to investigate the environmental impacts of offshore wind farms

The German Offshore Wind Energy Act aims for 30 GW by 2030, 40 GW by 2035 and 70 GW by 2045 of installed offshore wind energy capacity. This supports the goal of the Revised Climate Protection Act which aims to reach carbon neutrality in Germany by 2045. For the German EEZ the Federal Maritime and Hydrographic Agency (BSH) is responsible for most of the steps in the planning cascade. It prepares the Maritime Spatial Plan, the Site Development Plan, the site investigations and carries out suitability assessments and the approval procedure. This makes the BSH a one stop shop for offshore wind energy development.

Figure 15: The planning cascade at BSH, showing the different levels of planning that apply in the EEZ

This structure and 20 years of experience have made the BSH an efficient user of available offshore wind energy monitoring data. The collection of data is guided by standards that have been developed by internal and external experts. The following standard are available:

- Standard Investigation of the impacts of offshore wind turbines on the marine environment (StUK 4) [https://www.bsh.de/DE/PUBLIKATIONEN/_Anlagen/Downloads/Offshore/Standards/Standard-Investigation-impacts-offshore-wind-turbines-marine-environment_en.html], including Measuring instructions for underwater sound monitoring; minimum requirements on documentation for Offshore wind parks - Predictions for underwater sound, and Measuring specification for the quantitative determination of the effectiveness of noise control systems;
- Standard Ground investigations for offshore wind energy, setting out minimum requirements for geotechnical surveys and investigations into offshore wind energy structures, offshore stations and power cables [https://www.bsh.de/DE/PUBLIKATIONEN/_Anlagen/Downloads/Offshore/Standards/Standard-Ground-investigation-for-offshore-wind-energy_en.html];
- Standard Design, setting out minimum requirements for the constructive design of offshore structures within the Exclusive Economic Zone (EEZ) [https://www.bsh.de/DE/PUBLIKATIONEN/_Anlagen/Downloads/Offshore/Standards/Standard-Design_en.html].

The use of standards guarantees that the data are of sufficient quality and that the requirements are known to all those involved in the long term. In addition to the standards listed above, the “Technical task description for the central preliminary investigation of sites for the development of offshore wind energy: Subsoil” was published.

For quick and easy access to preliminary site investigation data collected by BSH the PINTA data hub [https://pinta.bsh.de/] was developed. Further tools were developed to accelerate and improve data collection, assessment and sharing, including MarinEARS [https://www.bsh.de/EN/TOPICS/Offshore/Environmental_assessments/Underwater_sound/underwater_sound_node.html] and MARLIN [https://linmarlin60.bsh.de/MARLINDMZ/publicSites/MainAppPublic.jsf].

These tools and procedures are constantly being developed internally and through participation in international projects and committees.

3.5.2. Belgium: Understanding the cumulative impacts of offshore wind developments

WinMon.BE is a countrywide research programme designed to understand the cumulative impacts of offshore wind development. At its core is a centralized funding scheme: All offshore wind farm developers have to contribute to the WinMon.BE fund, which is managed and publicly controlled by the Royal Belgian Institute of Natural Sciences. The monitoring programme is based on five principles:

- A centralised funding scheme
- Observing and understanding impacts
- Coordinated and long-term
- Adaptive management
- Public access to environmental information.

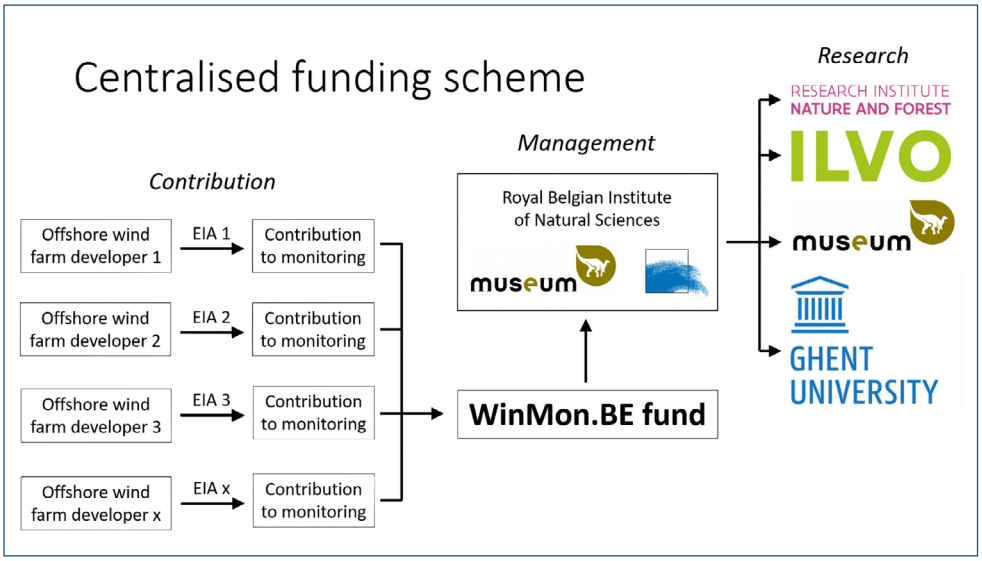


Figure 16: The WinMon.be centralised funding scheme for monitoring the impacts of offshore wind farming in Belgium. Presentation of Jan Vanaverbeke, RBINS, to the M&E LS, 2023)

The funding scheme displayed in Figure 16 provides several interesting aspects for the structure and results of monitoring. As the contribution is collected in a public fund,

all data and information produced by the monitoring is set to be publicly accessible by law (https://odnature.naturalsciences.be/mumm/en/windfarms/#monitoring). Also, the approach leads to a monitoring perspective for the whole Belgian waters in comparison to the perspective and monitoring obligations of an individual windpark operator. This crystallises in the principle “coordinated and long term”.

3.6. Keeping up with the dynamics: changing framework and policies

Development of the maritime space has accelerated since March 2021 resulting in further and faster demand on planning issues as well as stronger international cooperation. Adaptation of maritime plans by the majority of the EU countries have opened new development opportunities off-shore. European directives frame ambitious targets for the biodiversity and offshore wind energy. The Russian aggression and war against Ukraine leads to a stronger attention for security aspects (national and alliance defence) in the seas.

The more intensive presence of the sectors at sea created a new policy landscape that would require greater awareness, readiness for adaptation (eventually also structural, conceptual adaptation). A highly dynamical global situation with the chance of suddenly upcoming new threats, needs or demands for the spatial planning shows an even greater relevance for M&E systems, gathering the best available knowledge.

Fast-adaptive M&E – balancing comprehensiveness and feasibility

Due to practical limitations (resources/time) there may be a need to confine oneself to only certain dimensions of M&E or to include it into a running revision process. A forward-looking perspective to create better plans must be the basis for decisions on where processes can be streamlined.

Planners will ask themselves “When do we do the full-scale M&E and when can we or have to do less?”

On the other side of the practical limitations, there might be risks not to include some dimensions or to have M&E side by side with an ongoing revision process. These risks of course can mean a lack of information but can also mean that information collection has to be done at a later stage and in a less structured way.

To guide planners, a matrix is describing risks and recommendations for the M&E dimensions for the application of a fast-adaptive M&E approach. These options differ from the above described conceptual framework approach mostly by reduced efforts (and outcome). However, in part they can also be used as a supplement to the conceptual framework.

Dimension	Options	Risk	Recommendation
Plan effectiveness	• Apply an indicator-based system.	• Indicators are not sufficiently linked to the plan contents. (attribution gap)	• Carefully work with indicators. Assess if they indicate the intended.
Stakeholder involvement	• Reduce stakeholder involvement to legal minimum requirements in formal planning process.	• Reduced general exchange, knowledge gain. • Lack of transparency, further participation.	• Use interactive tools for information and exchange. • Install regular meetings.
Sectoral development	• Reduce observation of the sectoral development to main drivers. • Reduce frequency of reports.	• Reducing observations to single or few sectors ignores the intercorrelation of maritime uses. • Lack of information for best suitable planning decisions.	• Keep an overlooking approach, regulate with frequency or intensity. • Establish permanent and standardised information flows from external agencies/institutes. • Use of AI systems for gathering or repeatable tasks.
Environmental monitoring	• Reduce monitoring to legal minimum requirements.	• Unawareness of other status/knowledge developments which might affect planning decisions.	• Establish permanent and standardised information flows from external agencies/institutes. • Use of AI systems for gathering or repeatable tasks.
Frameworks and policies	–	–	–
Coherence	• Limit the international exchange to the formal ESPOO procedures. • Limit exchange to existing committees and forums. • Only bilateral, no sea basin level exchange.	• Limited international exchange can result in incoherent plans and resource intensive consultations phases with strong concerns, jeopardising schedules. • Not in line with an EBA.	• Develop a regular agenda item and reporting template for M&E at international planners meetings. • Create planners communities around shared concerns.

Table 1: Balancing comprehensiveness and feasibility in M&E: Options, risks and recommendations

3.7. Monitoring and evaluation examples from the UK

3.7.1. Monitoring and Evaluation of National Marine Planning in Scotland

The first National Marine Plan (NMP) for Scotland was adopted in 2015, providing an overarching policy framework that guides how Scotland's marine space and resources are used. The National Marine Plan covers inshore and offshore waters up to 200 NM and is a statutory document, meaning that all relevant authorities must follow the provisions of the plan (with some exceptions).

Review requirements for the NMP are specified in the 2009 UK Marine and Coastal Access Act (which applies to offshore waters, with devolved responsibilities to Scottish Ministers), and the 2010 Marine (Scotland) Act, which covers inshore waters. The review period for the NMP is three years. Section 16 of the Marine (Scotland) Act 2010 requires the review to cover:

a) The effects of the policies in the plan – e.g. towards securing a clean and healthy sustainable ocean,
b) The effectiveness of the policies in securing that objectives for which the plan was prepared and adopted are met,
c) The progress being made towards securing the objectives,
d) The progress being made towards securing that the objectives in any regional marine plan secure the objectives in the national marine plan.

An additional review requirement stems from Section 61(3) of the UK's Marine and Coastal Access Act, which is to review:

e) If a Marine Policy Statement governs marine planning for the marine plan authority's region, the progress being made towards securing that the objectives for which the Marine Policy Statement was prepared and adopted are met in that region.

These general monitoring and evaluation requirements filter through to the regional level where the approach to marine planning is more local and spatially directive.

The monitoring and evaluation framework for the 2015 NMP was designed to not be overly prescriptive and reflected the fact that this was Scotland's first NMP. There had been some uncertainty as to the available evidence base when the Plan was drawn up, and the Plan also did not want to create too burdensome a process.

Specifically, the M&E framework sets out how to collect feedback from public authorities such as the Marine Scotland Marine Licensing Operations Team, which is one of the main regulatory bodies for Scottish waters. It also guides how to obtain qualitative data from stakeholders, how to determine the success of policies and which policies might need

revision, and how to identify barriers to implementation and areas of the plan where change might be beneficial. In order to be open and adaptive, the framework is flexible on what other monitoring and available data sources should be considered. It also recognizes the attribution gap and helps reviewers consider the extent to which change can be attributed to the Plan and its policies.

In 2018, the National Marine Plan was reviewed for the first time. The Plan contains high level general policies and principles which are then translated into a large number of sector-specific policies and objectives. Rather than reviewing every policy contained in the Plan, this first review focused on providing an overview of the main issues and insights on the general effectiveness of the Plan. The legislative requirement is to evaluate the objectives the Plan was designed to support, which is a combination of EU MSFD descriptors and the UK's high-level marine outcomes arranged around five sustainability principles (achieving good environmental status, a sustainable marine economy, a strong and just society, living within environmental limits and good governance). The review comprised multiple elements of work and was extensive, based on the qualitative engagement of stakeholders. The main focus was on experiences with implementing the Plan and its integration in decision-making and/or internal processes. This comprised a review of how the Plan is interpreted by stakeholders, information sources used, any barriers in implementing the Plan, activities in the marine areas that are not (yet) adequately covered in the Plan, and other emerging policies that may need to be considered in the future.

An online questionnaire was made available for a period of 6 weeks, complemented by interviews with the Marine Scotland Licensing Team and other public authorities to establish what is working well and less well. A multi-stakeholder workshop took place that was hosted by the Scottish Coastal Forum. Decisions were screened to establish how policies are integrated in decision-making such as licensing decisions and how consistently the Plan is being used to justify decisions.

The 2018 review revealed wide use of the plan for statutory and non-statutory functions and uses, meaning that internal processes have been revised to accommodate the Plan. Some policies were particularly useful for decision-making, helped by their statutory status; these included policies for cables, a general policy for natural heritage and priority marine features, and a sea fisheries policy requiring fisheries mitigation plans. Challenges were also identified, including the (lack of) consistency of applying the plan's policies in decision-making across authorities, the fact that the plan is most easily related to large-scale projects (and difficult to relate to small projects such as individual moorings), ambiguity and potential conflicts between policies (e.g. a lack of guidance on what policies to give precendence to – such as climate change policy vs oil and gas policy), insufficient/lacking

voluntary measures or regulatory mechanisms to support implementation, and uncertainty over emerging activities and policies and Plan adaptability.

The review also attempted to use detailed information from environmental monitoring programs, such as the OSPAR Intermediary Assessment for the East Atlantic, where a challenge was that the timing of the review did not coincide with the timing of environmental assessment updates.

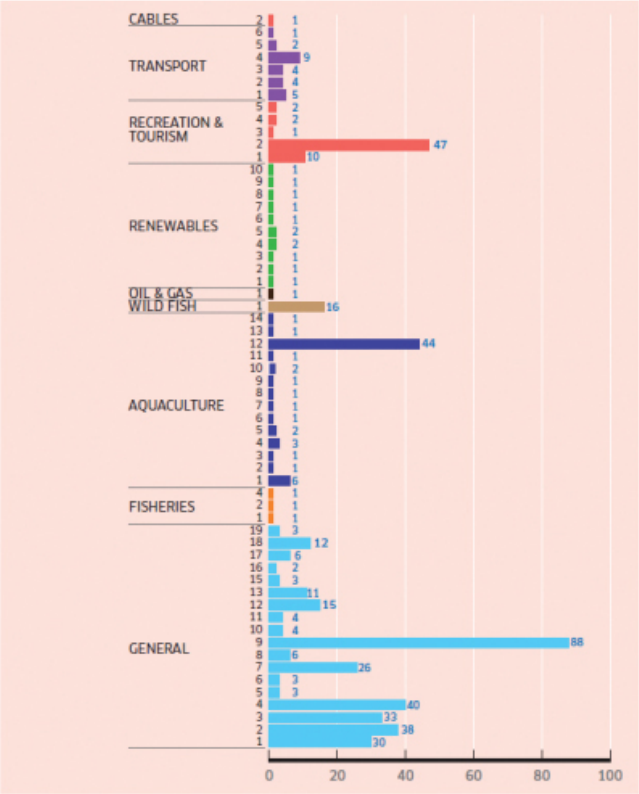


Figure 17: National Marine Plan Review for Scotland: Policy usage during sample period July to December (Scottish Government, 2018)

The 2021 review approach was similar to 2018 but contained additional information gathering on environmental and socio-economic monitoring approaches and frameworks. The review was challenging to carry out because of Covid-19. There was also a review of "relevant matters" as defined in Section 11 of the Marine (Scotland) Act 2010, including:

- The Global Climate Emergency
- The Covid-19 pandemic
- UK Exit from the EU
- the Blue Economy Action Plan
- Future Fisheries Management Strategy.

2021 key findings revealed that the Plan remains effective and that there is more consistent, wider use of National Marine Plan policies across Marine Scotland licensing operations.

Scotland's Marine Assessment 2020 (SMA2020) did not recommend immediate changes either but highlights areas of future work.

At the same time, the review of "relevant matters" did indicate a need to replace the Plan. This is because the legislative context has changed since Brexit, the global climate emergency is driving rapid change in our oceans; major policy frameworks, including the National Marine Plan need to be orientated towards delivering a green recovery from the Covid-19 pandemic, and the move towards a Blue Economy approach places greater emphasis on addressing increased competition for space. An update of the National Marine Plan was therefore planned by Scottish Ministers, with NMP2 aiming to "address the global climate and nature crises by carefully managing increased competition for space and resources in the marine environment." Specifically, NMP2 will:

- Deliver a new policy framework for licensing and consenting decisions
- Account for increasing competition for marine space and aim to balance existing and emerging uses – possibly by prioritizing certain policies;
- Provide a key mechanism for delivering Scotland's Blue Economy Outcomes 2022
- and wider strategic ambitions;
- Statutory document affecting decisions by all public authorities in marine space.

The approach to monitoring and evaluation NMP2 will be developed alongside the policy framework for the Plan rather than an afterthought. Scotland's Marine Assessment 2020 will serve as the environmental baseline for the Plan, supplemented by any new data becoming available, with a sustainability appraisal supplementing that baseline with any new data. Overall, the aim is to develop a more robust and comprehensive M&E framework that is more prescriptive with respect to using existing monitoring and indicators, therefore reducing administrative burdens and maximising efficiencies and fostering alignment with other areas where monitoring and evaluation strategies are being developed, such as the Blue Economy Vision. Elements under consideration include:

- Monitoring for prioritisation of objectives,
- How to adapt prioritisation recommendations that are being made elsewhere,
- Cross-border linkages – sub-national, UK-wide, North Sea,
- Cumulative impacts monitoring,
- Monitoring with a natural capital lens.

3.7.2. Monitoring and evaluation in England

The Marine Management Organisation (MMO), as an executive non-departmental public body, is sponsored by the Department for Environment, Food and Rural Affairs (DEFRA)

which provides overall policy directions for marine planning in England. The Secretary of State for Environment, Food and Rural Affairs is the planning authority in England, however marine planning functions (preparing, implementing and reporting on marine plans) for England were delegated to the MMO in 2010. The Secretary of State for Environment, Food and Rural Affairs agrees and adopts English marine plans. DEFRA also is responsible for reporting on the progress of marine planning in UK waters.

The Marine and Coastal Access Act 2009 (MCAA) provides the necessary legal base for marine planning in England. The Marine Policy Statement (2011) represents the national framework for decision-making in the marine environment. The Marine Plans then translate the Marine Policy Statement into detailed policy and spatial guidance for each marine plan area. There are eleven English marine plan areas in total, with each marine plan covering an inshore and offshore area, except the South East Marine Plan, which only has an inshore marine plan area.

England's marine plans are statutory, meaning public bodies (including the MMO) must take account of the plans when making decisions. The landward boundaries of marine plans overlap with the terrestrial planning system, so every local authority also has a responsibility to use the respective marine plan. A Report for each marine plan must be completed and submitted to Parliament every three years following plan adoption. The reports must cover:

- The effects of the policies in the marine plan,
- The effectiveness of those policies in securing objectives,
- Progress being made towards securing specific (sectoral) objectives,
- Progress being made towards securing Marine Policy Statement objectives,
- Relevant matters and contextual changes.

The Sustainability Appraisal and Habitats Regulation Assessment provide an important baseline against which the plan's effects are monitored.

A key feature of M&E in England is that the evaluation framework and policy-specific indicators are developed along with the plan. This allows consideration to be given to how policies might be monitored while writing them rather than retrospectively. Once the plan is adopted, the indicator set for monitoring is finalized and an annual process of data collection begins. The timescale for data collection can vary, as the intention is to mostly make use of existing data sources, although the MMO also generates new data, e.g. through its annual monitoring of decision-makers and internal data collection. Monitoring results are then collated to give a holistic assessment of plan performance every three years.

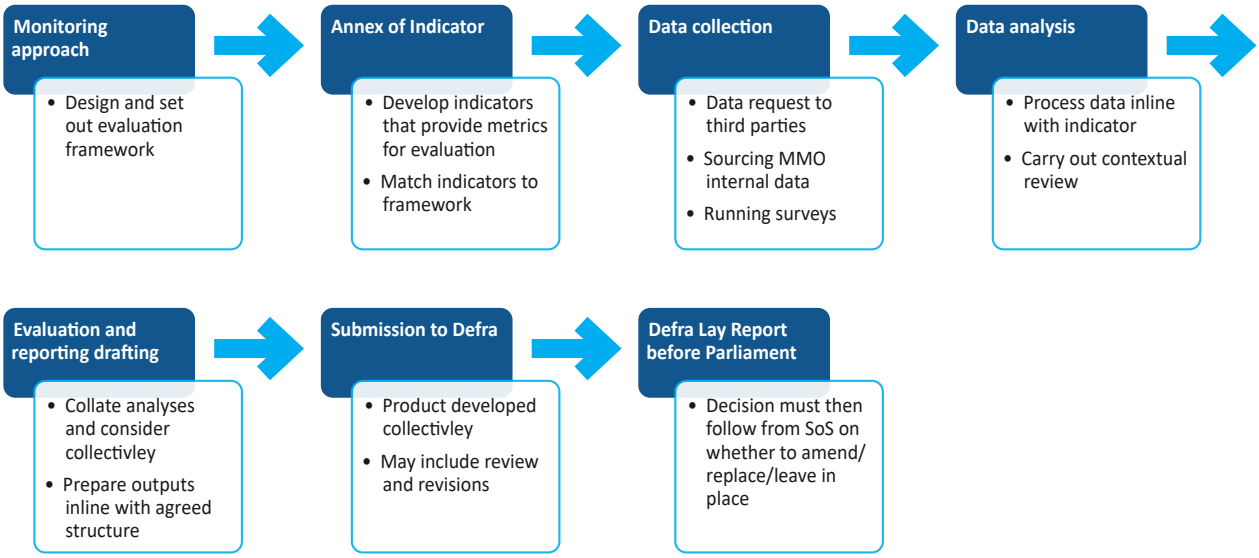


Figure 18: Timeline and frequency of monitoring: Steps within a three-year reporting window for English plans (Presentation of Rachel Brown to the M&E LS, 2023)

Four monitoring reports have been published so far. The East Marine Plan, published in 2014, has had three published Reports, with a recommendation made in 2020 to amend the Plan. This was delayed due to the Covid-19 pandemic and also by more general revisions to the marine planning system, so that the revision process is now due to start in 2023. As the East Marine Plan was the first to be drawn up, it still contains a relatively simple set of policies. Since then, the evidence base has grown considerably, which means more specific and spatially prescriptive policies could be developed in later plans. As a result, monitoring and evaluation has also become more complex. The South Marine Plan, published in 2018, had its first Report published in 2021, with a recommendation to retain the plan, which was accepted. Work is currently underway to develop the second Report for the South Marine Plan alongside the first Reports for the North East, North West, South East and South West Marine Plans in 2024.

The impact logic model

Evaluation of the effectiveness of plans is based on an impact logic model which sets out the sequence of steps that will need to occur for the plan to have its desired impact. On the right-hand side is the desired impact of the Plan, on the left are the various inputs (such as staff time), activities (such as implementation training), outputs (such as clear guidance to stakeholders on how to use the Plan) and outcomes that eventually lead to the desired impact. While the left-hand steps are still within the direct control of marine planning itself, the steps on the right are progressively influenced by other factors, meaning marine planning only has some influence over the outcomes and final impact of the plan.

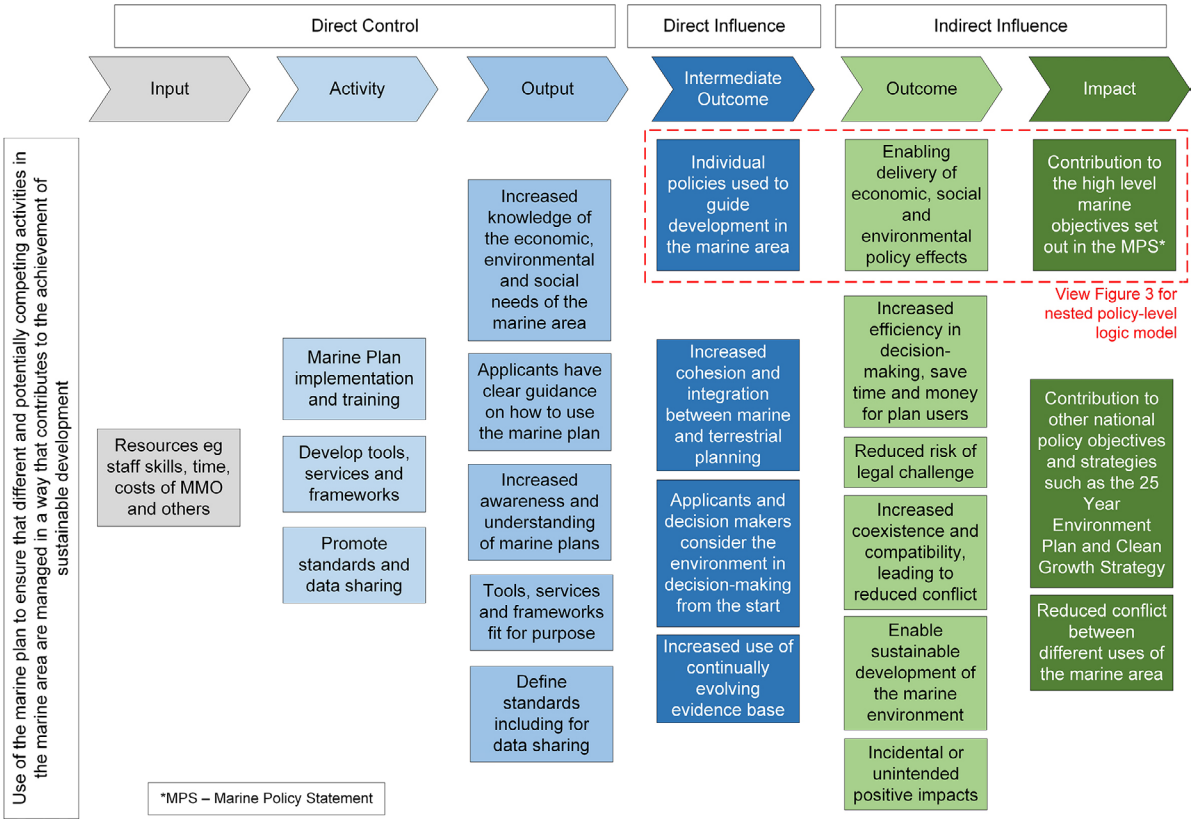


Figure 19: The marine plan-level logic model for evaluating English marine plans (MMO, 2020)

To enable monitoring to take place, each step within the logic frame is matched with suitable indicators to allow specific data sets to be gathered for assessment. The figure shows an example from the MMO's own internal review, indicating that the target of 100% was not met in this instance.

Logic model box	What do we want to measure?	How will this be measured?
Increased use of the continually evolving evidence base	Use of Explore Marine Plans and associated data	Analytics provide number of unique site visitors, clicks, and time spent on the page to understand visitor use of the service over time.
Decisions made according to Section 58 of Marine and Coastal Access Act 2009	Evidence of policy use in decision-making by the MMO marine licensing team	MMO marine case management system contains decision-making audit trails for marine licenced activity.
Enabling delivery of economic, social, and environmental policy effects	Sector specific data such as marine industry employment	ONS collect data on employment by sector. This can show if trends are in line with policy aim.

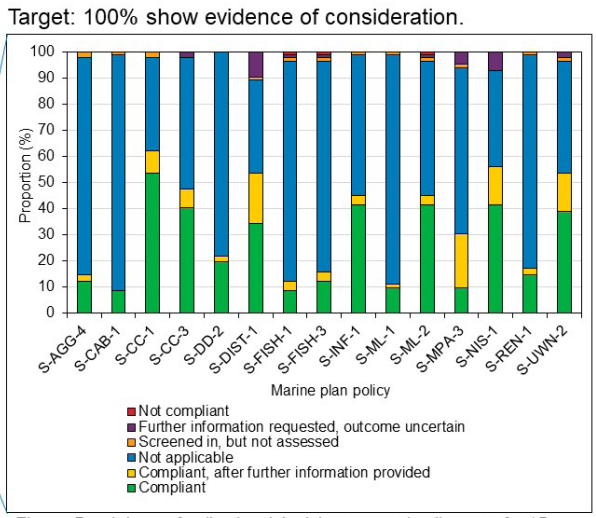


Figure: Breakdown of policy-level decisions on marine licences for 15 South Marine Plan policies

Figure 20: Breakdown of policy-level decisions on marine licences for 15 south marine plan policies (Department for Environment, Food and Rural Affairs, 2021)

Notably, legislative evaluation requirements almost exclusively focus on plan outcomes where attribution is a particular challenge. The MMO therefore concentrated more on the left-hand side where the direct effects of the plan can be more readily established. If a policy is being used in decision-making and if changes are also occurring in line with policy intent, a picture can be built of the effects of each of the policies. In addition to policy-specific analysis, broader changes are also assessed, such as any increase in the efficiency of decision-making.

Challenges

Key challenges when monitoring the effects of the plan include the provision of data, integration of evaluation into plan development, and the attribution of observed changes to the influence of the plans. The complexity of the logic model is also a major challenge, which is why a simplified version was drawn to explain it. An important aspect in the simpler model was to illustrate the decrease in control and influence of the plan as the influence of external factors increases and to make this clear in reporting. Another challenge is time. While some consented activities can be steered relatively easily and tracked in the short term (such as where an activity occurs in marine space), broader environmental or economic improvements or other intermediary outcomes are unlikely to be achieved quickly. For example, it takes many years from the designation of an area for offshore wind farm to a wind farm being in place and for its effects to be monitored.

A lot has been learned over the last ten years of implementing and monitoring marine plans. Given the multiple objectives marine plans aim to deliver, monitoring can be burdensome. Challenges include access to data, especially when the legislative framework does not require other authorities or stakeholders to share their data, as well as the need to continuously develop the monitoring approach itself. When monitoring delivers inconclusive findings or yields evidence that something is not working, this is not necessarily an indication that the plan needs changing. It may simply be that the monitoring approach is too complicated, or the data not delivering the desired outputs, or that the plan needs more time to have an impact. Interpreting and explaining monitoring results to decision-makers is therefore very important.

Another challenge is to integrate evaluation in plan development. Marine planning often emphasizes compromise; as a result there may be less well defined objectives which are more difficult to match with suitable indicators. Finally, contextual monitoring and the influence of the plan can be difficult to disentangle.

Lessons learned

An important lesson is that **it is easier to develop a monitoring concept and indicators while developing the plan.**

The 2017 Report of the East Marine Plan found that many stakeholders did not know how to work with the Plan, so enhanced implementation training was offered to different authorities and stakeholders. **Another important lesson has been that the more implementation training is offered (such as leaflets, face to face meetings, YouTube videos, a marine planning game), the more the Plans are being referred to in decision-making.** Providing training also generates greater familiarity and trust, meaning a better response when stakeholders are asked to contribute to monitoring.

A statutory requirement for monitoring and reporting is helpful and clarifies what is required, yet the added benefit of monitoring and evaluation also beyond marine planning itself, e.g. with respect to overarching or sectoral policy, needs to be communicated more, even though some processes of changing policy can be slow.

3.8. Coherence of Maritime Spatial Plans

Maritime Spatial Planning is a management process that influences dynamic ecosystems and planning spaces. As such, it must pay attention to the coherence of its interventions, to secure healthy ecosystem processes, sustainable human activities and the achievement of long-term social goals such as blue justice or climate change mitigation and adaptation. In the Baltic Sea and North Sea, maritime spatial plans are prepared at the national level, which calls for co-operation between national MSP authorities during all stages of plan preparation, implementation and evaluation to secure a minimum level of coherence. So ar experience related to conscious designing and monitoring of the coherence between maritime spatial plans is limited, therefore MSP authorities are searching for inspiration and good practices in this field.

3.8.1. Introduction

Background

The EU MSP Directive explicitly calls for coherence between maritime spatial plans of different countries. This requirement is formulated in Article 11 asking member states in charge of the plans to “cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned”. Co-operation, where possible, is also required with the non-member states in the relevant marine regions (Art. 12). “Maritime region” can be understood as a sea basin or any smaller but well delimited parts, e.g. the Western and Eastern Mediterranean. However, the Directive does not define what is meant by coherence, how such coherence should be achieved in practice, and how it should be monitored and evaluated.

The Directive also asks Member States to "promote coherence between maritime spatial planning and the resulting plan or plans and other processes, such as integrated coastal management or equivalent formal or informal practices". In this report, only the first type of coherence i.e, between maritime spatial plans is discussed and operiatonalised.

Key terms

Coherence, according to the Cambridge Advanced Learner's Dictionary & Thesaurus, means *"the situation when the parts of something fit together in a natural or reasonable way."*

Coherence is not the same as cohesion. Both terms are closely related since cohesion describes *"the state of sticking together (for objects), or (for people) being in close agreement and working well together".* Within the EU, however, the notion of cohesion is mostly reserved for the EU's Cohesion Policy; thus its use in the MSP context might create cognitive dissonance, confusion and misunderstanding.

Operationalising the term of coherence for MSP purposes would require an answer to two questions:

a) what should fit together and at what scale,
b) what constitutes a reasonable fit (what is the ultimate effect of the MSP coherence).

For the first question one can propose the following options:

- the **designations** in various plans (e.g. shipping corridors, cable gateways, blue corridors etc.), and/or
- the **axiology** (e.g. the values and interests) of various plans, and/or
- the **outcomes** of various plans (e.g. whether all plans allow for the achievement of key policy goals for a given sea area, e.g. in relation to climate change or the European Green Deal etc.

As far as the scale is concerned, coherence between plans can be achieved and assessed at cross-border, sea basin and in some cases even EU level.

Indicators of coherence could include:

- A lack of conflict between plans. At a structural level, this could mean that offshore wind farm designations in one country do not block access to fishing grounds used by neighbouring countries.
- A lack of conflicts coupled with the conscious use of synergies (a more ambitious approach). This could mean that designations are put in place to actively support each other across both sides of the border. An example is the Gentlemen's agreement

between Poland and Sweden to secure harbour porpoise refugia on the Swedish side which allows both countries to erect offshore wind turbines at Middle Bank.

Answers to these questions can serve as a form of indicator and quality control as they help us to know whether we have achieved a reasonable fit based on our initial choice of what should fit.

In this report the focus is on coherence achieved during the course of preparing the maritime spatial plans. At the same time, plan implementation is also key to delivering coherence. This particularly applies where regulatory and strategic plans meet. For example, are licensing decisions similar and based on a similar rationale within and outside area-based designations? This issue is not examined in this report and will require further investigation based on growing experience with plan implementation.

Based on the conceptualisation outlined above it is possible to distinguish six different types of coherence between maritime spatial plans (Fig. 21)

Each type of coherence can be checked in a different way. For example, to compare whether designations fit together (no conflicts and/or creation of synergies) it is sufficient to compare plans (output data), i.e. relevant maps and textual parts, to check what sectors have been covered and how and what sectors/activities have been omitted. To assess levels of synergy there is a need to also check the fit between other types of plans, in this instance sectoral or environmental plans.

Evaluation of coherence between values and interests should not be limited to a comparison of plans as text documents. The values declared in planning documents may differ from implemented values, so the aim should be to reveal the latter as the real drivers of the MSP process. This will usually require rigorous and external investigations and assessments.

	i) Designations fit together	ii) Values/interests fit together	iii) Outputs (Achievement of key Policy Goals)
A) Lack of conflicts	(Ai) designations in different countries do not contradict each other (no visible problems)	(Aii) Non contradictory values, stakes, principles underlying MSP in different countries	(Aiii) agreement on common goals and targets at the level of the entire sea basin
B) Synergies + lack of conflicts	(Ai) as above + designation supports each other	(Bii) Similar values, stakes principles forming MSP in different countries (e.g., blue justice)	(Biii) common goals and targets at the seal basin level encapsulating broader EU/global ones like CC or GD
	At the level of plan (putting output data together)	External check of the MSP process	Political documents of operational character

Figure 21: Types of coherence between maritime spatial plans based on three levels of expectations towards coherence intensity and nature

Evaluation of coherence at the level of key policy goals is based on the outputs of MSP. It should focus on examining policy documents agreed by the competent authorities. They key issue here is political will, such as the existence of agreed sea basin or cross-border targets relevant for MSP. An example could be how much renewable energy should be produced by each country at sea or what types of seascapes should be protected.

Each type of coherence can be assigned to different roles and functions (Table 2).

	i) Designations fit together	ii) Values/interests fit together	iii) Outputs (Achievement of key Policy Goals)
A) Lack of conflicts	Minimum consensus	Respect of neighbouring interests	Policy consensus
B) Synergies + lack of conflicts	Functional coherence	Solidarity	Securing our future

Table 2: Key roles for different types of MSP coherence, based on three levels of expectations towards the intensity and nature of coherence

In the latter part of the chapter the practical examples of securing and monitoring coherence between MSP plans are presented. The typology presented above will then be used for formulating project reccomendations.

3.8.2 The HELCOM-VASAB voluntary guidelines applied to the North Sea: Findings

The models for securing coherence between MSP plans are different in the Baltic Sea Region (BSR) and North Sea Region (NSR). Put briefly, the BSR model is characterised by the existence of formal networks for discussing, operationalising and monitoring the coherence of MSP plans. MSP planners play a key role in all these efforts. In the NSR coherence is mainly addressed through sectoral networks. Planners are invited to these networks, but their role is different compared to the BSR model.

The BSR way of addressing MSP coherence

In the BSR a key role is played by the HELCOM-VASAB Working Group on MSP (HV MSP WG). It was established in 2010 by both international bodies (VASAB: Cooperation of Ministries for Spatial Planning and Development in the BSR; HELCOM: Helsinki Convention) as a follow-up of the VASAB working group on ICZM and maritime spatial planning that was active in the years 2007-2008. The group is composed of the senior officials from relevant ministries or government agencies in all VASAB and HELCOM member countries/ contracting parties, as well as experts delegated by them. The mandate of the HV MSP WG is to *ensure cooperation among the Baltic Sea Region countries for coherent regional Maritime Spatial Planning processes.* The group reports to the respective Steering

Committees of VASAB and HELCOM which endorse its most important policy suggestions (e.g. guidelines, principles etc.).

In addition, a Planning Forum (renamed Planners' Forum) has been organised repeatedly since 2018. The Planners' Forum is a place for informal collaboration among MSP practitioners. Thanks to the Forum BSR planners know and trust each other. In a document[2] summarising the experience of first two years of the Forum, the main reason for launching it and its main aim is described as achieving „coherent planning across borders /.../ to ensure efficient and optimal use of the Baltic Sea and to meet economic, social and environmental objectives." The Forum adds the practitioner layer of co-operation to the work of the more formal HV MSP WG and acts „as a practical dissemination and collaboration platform that supports ongoing national and regional MSP processes and implementation of MSP policy"[3]. It provides a frame "for in-depth discussions, establishing practical task forces and exchanging good practices and experiences in MSP among practitioners."[4] Initially the group's membership was not regulated; however, according to recent declarations „the group should be limited to 1-2 nominated members from each country and depending on the topic further maritime planners could be invited." Limiting membership implies a egree of formalization of the Forum's work and lowers its own level of discretion. Beyond the Forum, BSR planners have also participated in several joint projects for MSP authorities that aimed at improving coherence bwteen national maritime spatial plans. These include the EU-financed Baltic Scope, Pan-Baltic Scope, BalticRIM, Capacity4MSP, eMSP but also many others.

Regarding the coherence of MSP plans, the HV MSP WG has issued the *HELCOM-VASAB Voluntary guidance for assessment of cross-border coherence*[5]. Elaboration of the Guidance by a special task force began in 2019 with the aim of developing a method to assess cross-border coherence. The final result takes form of a practical checklist approved by the HV MSP WG. In assessing coherence two aspects play a role: firstly, comparison of the maps of MSP plans to assess any matches and mismatches of planning decisions across borders, and secondly, a functional perspective (beyond the MSP maps) which

The Planners' Forum is:
- Informal
- Supportive
- Needs-based

Tasks of the Planners' Forum:
- Identify planning needs;
- Exchange information and experience;
- Organise cross-border consultation on plan proposals;
- Develop recommendations;
- Cooperate with project activities

5 https://vasab.org/wp-content/uploads/2022/12/NOTES_1st-Planners-Forum-meeting-within-PASPS_2022-11-04.pdf

focuses on planning decisions and principles that cannot be taken from maps. The guidance envisages three steps:

a) Step 0: Identification of cross-border procedures as a precondition for enhancing coherence,
b) Step 1: Identification of cross-border issues (scoping),
c) Step 2: Assessment of the coherent handling of different topics in the plans under examination.

Step 0 can be done as desktop screening exercise since the nature and outcomes of cross-border meetings and discussions are usually available on the websites of relevant authorities. In Step 1 there is a need for discussion between planners. This should firstly identify relevant topics with a cross-border nature, covering human activities and infrastructures but also cross-border 'features' of the marine ecosystem. Secondly, the discussion should reveal whether the plans in question address the same topics. For any topics not addressed in the plans, additional screening should be done of different types of sectoral decision-making, e.g. Natura 2000, IMO decisions etc. The final outcome of this stage should take the form of a list of topics of 'particular concern', which should include all topics that could have a negative or positive influence across the borders in question. In Step 2 the planners should discuss differences in how the various topics are handled, the risks and problems created by this, possible solutions for mitigating risks and ways of turning conflicts into synergies. The document also contains a list of possible questions (covering different sectors) that might facilitate and structure discussions between planners.

Importantly, the Guidance does not aim to measure the level of coherence between plans. However, it can help to identify relevant cross-border problems and conceivable solutions (according to planners' perceptions) and then inform a cross-border dialogue. The Guidance and its questions can therefore also help to launch discussions in situations where neigbouring MSP plans are very different (regulatory versus guiding plans or detailed versus strategic plans).

The Guidance primarily supports the delivery of ”functional” or ”minimum consensus” type coherence. Application of the Guidance was tested in the eMSP project in the form of a trilateral discussion between Poland, Germany and Sweden, as well as a bilateral discussion between Finland and Estonia. The main observations resulting from the test are presented in the next chapter.

The NSR way of addressing MSP coherence

Formal or semi-formal planners structures comparable to the BSR do not exist in the NSR or have only recently emerged. In this region, informal and sometimes more formal sectoral

networks play a key role. The most relevant networks for discussing MSP coherence are the North Seas Energy Cooperation (NSEC) including the Greater North Sea Basin Initiative (GNSBI), the North SEA Shipping group and the NSR Maritime Spatial Planning Collaboration Group (NSR MSP CG).

The NSEC is a framework for facilitating cooperation between the countries around the North Seas, with support from the European Commission. Its aim is to deliver the North Sea country's combined offshore renewables ambitions, including through a joint vision and the promotion of cooperation projects. NSEC is an inter-ministerial formal co-operation structure similar to VASAB, although it does not take the form of a formal international convention. Belgium, Denmark, France, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden and the European Commission are currently members of the NSEC. The governance structure consists of a high-level group, ministerial meetings and the coordinators' committee. There are also four support groups, of which one is devoted to MSP. The cooperation was started in 2020 and aims at accelerating the delivery of regional offshore renewable energy in the NSR. On 12 Sept 2022 the Joint Statement on the North Seas Energy Cooperation (named NSEC Dublin joint statement) was issued by the NSEC Ministers. It sets ambitious new aggregate targets of reaching at least 260 GW of offshore wind energy by 2050, with intermediate targets of at least 76 GW by 2030 and 193 GW by 2040. The statement also stipulates that NSEC will act as facilitating body for the task of the North Seas Offshore Grids (NSOG) priority offshore corridor sea basin. It was also decided that the NSEC Support Group on MSP will explore options for better integration of spatial planning and regional strategies within a 2050 scenario study based on broader cooperation. All these various efforts might therefore support coherence of NSR maritime spatial plans with regard to offshore wind energy issues.

The Greater North Sea Basin Initiative (GNSBI) was started by the Netherlands and France to foster ideas and directions for future cooperation on multiple and interconnected transitions in the North Sea (energy, nature, food and the wider sustainable blue economy). It also aims to reinforce the work of existing frameworks. Participating countries are (in addition to the initiators) Belgium, Germany, Ireland, UK, Norway and Sweden.

The *North Sea Shipping Group* was established in 2019 as a result of a side event of the INTERREG NorthSEE project. It is a knowledge-sharing community that mainly focuses on sharing plans, information, tips and tricks. It encompasses representatives of the shipping authorities from France, Germany, Belgium, Denmark and Netherlands, Norway, Sweden and UK. There is a permanent chair and Secretariat in the Netherlands; the group meets four times a year. Discussions at the meetings focus on current issues relevant for safe and unimpeded navigation including conflicts with other uses (in particular

offshore wind energy installations), as well as shipping-induced pressures on the marine environment (e.g. oil spills). One of the outcomes of the group's work is an integrated map of the North Sea showing various existing and planned sea uses. The group maintains its informal character and serves as a vehicle for sharing knowledge and information among its members, increasing awareness, transparency and cross-border cooperation on the matters relevant for shipping in the North Sea.

The North Sea Region Maritime Spatial Planning Collaboration Group (NSR MSP CG) brings together MSP authorities from the greater North Sea Region (Germany, Sweden, Denmark, Norway, Belgium, France, Netherlands, Scotland, Ireland) and the North Sea Commission of the CPMR. It was launched in 2020. The NSR MSP CG focuses on transnational and cross-border topics for which functional coherence in MSP is needed. It is an informal platform to meet, discuss and exchange views and experiences. If there is consensus on a common approach or way forward to achieve coherence in MSP, the group members will promote this consensus while not being formally bound by it. The NSR MSP CG meets on a regular basis, as per the schedule elaborated by the participating authorities. It has rotating (every 2 years) chair and secretariat. The purpose of the NSR MSP CG is not to take over the role of existing groups or any national or regional processes working on joint decision making within the IMO or OSPAR, or for fisheries management or climate change adaptation and mitigation. The NSR MSP CG can play an advisory role to those groups and processes, though, for the purposes of achieving greater coherence in planning, strengthening relations between relevant processes, and sharing information and experiences. The NSR MSP CG is less formal than the Planners` Forum in the BSR but plays a similar role.

All the efforts of the various groups presented above might help to achieve the "minimum consensus" type of coherence although the NSR MSP CG might also facilitate functional coherence.

One of the key issues discussed in the NSR context is the ability to use information that is routinely produced through monitoring offshore investments. Such information usually remains the sole property of the owner of the investment and cannot be used for informing discussions on the MSP coherence in a cross-border context.

Summary

The BSR and NSR models for ensuring coherence between maritime spatial plans reflect past experiences in co-operation in each region. In the BSR, the focus is more on anticipating potential problems and facilitating their resolution, while in the NSR cooperation is more problem-induced and based on actual needs. Both models appear to converge to some degree: The BSR Planners` Forum was added eight years after establishing the HV MSP WG,

whereas in the North Sea the informal co-operation of planners was recently strengthened by more powerful ministerial co-operation on spatial planning with regard to offshore energy deployment.

3.8.3 Observations from testing the HELCOM-VASAB Voluntary guidance on cross-border coherence

The *HELCOM-VASAB Voluntary guidance for assessment of cross-border coherence* was tested by means of a cross-border discussion between Poland, Germany and Sweden and also between Finland and Estonia. The discussions followed the main steps outlined in the Guidance and were held online using an online whiteboard as a workspace. A summary report was prepared and shared with the participating countries[6]. Testing has resulted in following observations/recommendations that might inform future work on coherence in the BSR and NSR:

1. Cross-border discussions based on the HELCOM-VASAB Guidance are of the equal importance as discussions at broader sea basin level. Despite the various platforms for discussing MSP there is still a need for ad-hoc cross-border MSP discussions once a cross-border need or issue has been identified. Dedicated cross-border discussions might help address more detailed problems and issues that only apply to the planning context of a specific marine border. Such discussions can identify inconsistencies between plans (like a lack of cable gateways or mismatching transport designations), but more importantly offer a continuous process for discussing future developments and development intentions. The main problem with this type of discussion is time as in-country discussions on planning solutions usually have higher priority. Cross-border discussions would require proper allocation of time and careful preparation. The personal contacts between planners in neighbouring countries are also crucial and countries should endeavour to also tell each other about staff changes so that the informal cross-border dialogue is not hampered.

2. The Guidance should be adjusted to anticipate the future planning needs. Given the attempts in many countries to speed up planning processes to accommodate even more offshore energy, assessment of coherence should be simplified rather than complicated further. As it stands, the *HELCOM-VASAB Voluntary guidance* is only good for the current moment when all countries are still preparing their first wave of plans. In subsequent and possibly faster plan revision rounds, there may be no place for such detailed assessments. Thus the project proposal is:

   - to simplify the checklist, reducing it to assessment of functional coherence,

- to better align the assessment procedure with the planning process, i.e. encouraging planners to take care of some issues while revising the plan.

  This can be done by preparing a list of guiding questions that planners should reflect upon or ask the planners from neighbouring countries when revising their plans. Concrete proposals on how to maintain cross-border coherence are provided in the Policy Brief.

3. Planners should make use of existing sectoral networks to discuss issues related to coherence. The problem is that such networks (with few exceptions) do not exist and planners are unable to activate them.

4. Open portals with GIS data are highly beneficial as they can share crucial information for making connections between two bordering countries. If countries hold such portals, an idea would be to connect them or share the respective data. Examples are the Finnish MSP GIS portal, the regional HELCOM Basemaps or a more dynamic version of the integrated map of the North Sea.

5. Further discussions are needed on the following topics:
   - What is the connection between coherence and the cumulative impact of human activities? How should we take this into consideration?
   - Is there coherence in how plans address climate change issues? What is the cumulative impact of plans on climate?
   - How to disseminate knowledge on innovations that can strengthen functional coherence? For example, the Swedish climate refugia could be used more broadly as a good example of approaching Climate Change in MSP.
   - What is the difference between coherence and sufficiency? For example, plans might be totally coherent in many respects but still insufficient, e.g. with regard to nature conservation or climate change. The discussion on sufficiency is even more important than the discussion on coherence.
   - How should planners deal with decisions outside their mandate, e.g. the lack of coherence at the "functional" sectoral level (incoherent N2000 designations)?
   - How should planners deal with a situation where the information base is insufficient? An example is the issue of a bird migration corridor in the German EEZ and competing offshore wind development in the transboundary area of Germany.

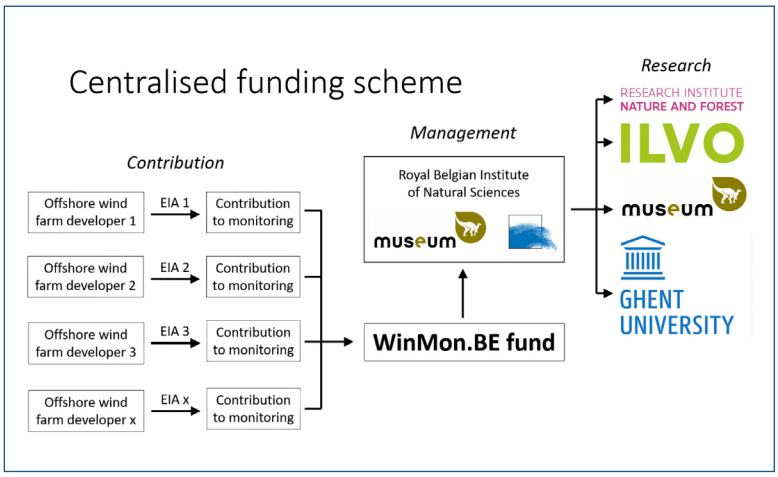
6. The *Helcom-VASAB Voluntary guidance for assessment of cross-border coherence* is a useful tool to start the discussion on the coherence of plan designations. In ongoing and future MSP revision processes, work on coherence should be forward-

looking and performed as part of the planning processes rather than take the form of a retrospective assessment. The Policy Brief on coherence sets out what a coherence mechanism that complements ongoing planning processes could look like.

3.8.4 Observations from discussing the NSR experience on cross-border coherence

Discussing the NSR experience on ensuring MSP coherence has resulted in following conclusions, observations and recommendations:

1. Communities of practice that allow expertise and opinions to be shared and discussions to take place are more easily able to accommodate non-EU countries in MSP coherence discussions than the formal decision-making groups. They are also superior when it comes to dealing with a rapidly changing policy agenda.
2. There are some other important suggestions for fostering informal co-operation:
   - Constructive positions, trusting each other and transparency are essential for exchanging opinions and data between participating members.
   - Debating possibilities and foreseeing potential conflicts during organised meeting is more valuable than looking at numbers.
   - Fostering personal connections between group members is important as this might reveal more essential (and maybe non-obvious) information.
3. For coherence, it is important to take into consideration the results of monitoring done at the project level. Making such data publicly available can facilitate and inform discussions on MSP coherence at various spatial scales (chapter 3.5.2).



4. The experience of the NSR MSP CG indicates that it is crucial to be informed to be coherent. This means knowing who is driving MSP and who wants to get what from MSP. It is essential to foresee at least some developments that will occur in the sea, and work on these should be enhanced at sea basin level. For instance, a cumulative assessment framework for offshore wind energy is to be elaborated by 2024, and a combined assessment framework for all sectors by 2028 (these are set as OSPAR operational targets).

Key project recommendations for BSR and NSR MSP on cross-border coherence

Each MSP is country-specific and different. As a result, there is a need for cooperation to make national plans more coherent within a sea basin. This particularly applies during periods of rapid change and great (global) political and environmental challenges, when plans might have to quickly adapt to new circumstances. To avoid problems with contradictory designations, work on coherence should be carried out concurrently with ongoing revision processes and inform these processes in a forward-looking way. A proposal for a complementary coherence mechanism is presented in the Policy Brief on coherence.

Processes working towards greater coherence in both macroregions (BSR and NSR) should be continued and strengthened, in line with existing patterns and experiences including modes of cooperation and working methods. Coherence is best secured if the relevant MSP actors take ownership of relevant processes, as it is they who need to dedicate their time and resources to joint work. A combination of various formal and informal efforts seems a good way forward. In the Baltic Sea Region, the HELCOM-VASAB Working Group on MSP should be supported by successful Planning Forums; in the North Sea a key role should be played by the North Sea Region MSP Collaboration Group. With regards to sustaining cross-border coherence, support should be given to bi-and trilateral cooperation mechanisms. The existing networks should also ensure coherent spatial regional strategies, generate new data and knowledge relevant for cross-border planning, act as discussion platforms on cross-border MSP issues, and keep all countries and the region's actors informed.

Cooperation between MSP networks and regional sectoral organisations of transnational/ cross-border importance should be strengthened for the purposes of greater coherence in planning, better integration of relevant processes, and sharing information and experiences. This particularly applies to BEMIP – the Baltic energy market interconnection plan, NSEC – The North Seas Energy Cooperation, IMO – International Maritime Organization, ICES – International Council for the Exploration of the Sea, and others.

Current work on coherence should be also extended to business and NGOs actors. Information on coherence (i.e. a bigger picture of why they can invest here and not there) might be crucial for investors. They can use this information in discussions within the sector and with public authorities.

Both macroregions should focus on enhancing and monitoring functional coherence. If possible some efforts could be made to initiate a discussion on solidarity-based forms of coherence. However, this would require further efforts and commitments including from the research sector.

4. Conclusions related to climate change and the European Green Deal in MSP M&E

Climate change is expected to have profound effects on oceans and seas – and with this the way we use the seas. Increasing ocean temperatures and acidification will be accompanied by declining oxygen levels, and extreme events such as storms and heatwaves will become more frequent. Consequences include structural and functional changes in marine ecosystems and coasts, leading to changing needs for coastal adaptation and changing ecosystem services – with implications for the socio-economic systems that rely on these services for a variety of benefits. While these physical and environmental changes are important in themselves, change with relevance to MSP is also caused by society's actions towards climate change mitigation and adaptation, such as expanding offshore renewables or carbon storage.

Climate-smart MSP (Frazão Santos et al., 2020) integrates climate change considerations (adaptation and mitigation) into planning in various ways. The eMSP project has summarized relevant approaches and recommendations in a separate policy brief addressing planners, researchers and policy-makers. One of the biggest challenges in the context of climate change are uncertainties related to the local impacts of climate change and when and how they might manifest themselves, making it difficult for MSP to anticipate future marine resource distribution, demands and patterns of use. Scenario analysis and projections of change in the marine environment are therefore important tools. A key recommendation of the eMSP project is that climate change mitigation and adaptation need to be tackled at the same time.[7]

Monitoring in the context of climate-smart MSP

Climate-smart MSP relies on an up-to-date evidence base which in turn requires monitoring and observation of key parameters. A solid evidence base is all the more important as accelerating climate change requires climate-smart MSP to respond to rapidly changing conditions (Frazão Santos et al., 2016; Gissi et al., 2019; Queirós et al., 2021). Key questions for monitoring the impacts of climate change as part of climate-smart MSP will likely include:

- How, where and how fast is the **marine environment** changing in ways that are spatially relevant? For example, how are habitats and species shifting, how much are sea levels likely to rise, what extreme events are more likely in the future? How are any trends likely to develop in future – will they accelerate / cumulate?

- How are **sectors** anticipating climate change, and what actions are they already taking or will soon be taking to mitigate or adapt, and to which effects of climate change? How will these actions impact on marine space? How will the economic impacts of climate change affect the ability of blue sectors to invest? For example, what does the shipping sector expect in terms of future shipping routes? How is the offshore wind farming sector anticipating sea level rise, or increased storminess, with respect to the placement and layout of wind farms, turbine size and energy yields? How is the fishing sector experiencing climate change and what strategies are being developed to adapt to changing and/or shifting resources?
- What **policy changes** have already taken place or are being discussed in relation to climate change adaptation and mitigation? Which sectors are likely to be supported in future and which are not?

Perhaps the most important question in the context of climate change is whether plans are really climate-smart or could still do more – and how to monitor and evaluate this.

It is likely that various sectors and stakeholders are already engaged in monitoring the effects of climate change. Particularly nature conservation authorities will want to determine the ecological and environmental effects of climate change on protected areas and species and ecosystems generally. Research institutes play a key role in collecting monitoring data on a wide range of biological and biophysical parameters. Models and forecasts of future conditions are increasingly being developed, including combined models and scenarios that take into account the likely impacts of climate change and emerging patterns of human use. At the same time, uncertainties remain as the exact spatial manifestations of climate change and also the timescales of climate-induced shifts remain difficult to predict.

Relating the six dimensions of the conceptual framework to monitoring the effects of climate change

Climate change is relevant to all six dimensions of the conceptual framework for M&E. An M&E concept should therefore map all known influences of climate change on the respective blue sectors and the marine environment (adaptation and mitigation) as a starting point. The following matrix demonstrates possible relations of climate change to each of the six dimensions. The recommendations are examples of how these topics could be dealt with.

Dimension	Relations	Recommendation
Plan effectiveness	• Climate change might affect if and how the planning objectives of a plan can still be reached as intended. Observation should therefore focus on the objectives of the plan and any associated risks, asking whether the impacts of climate change are likely to impede any existing spatial designations or regulations and in what way.	• Use the knowledge gathered within the other M&E dimensions (reports etc.) for the evaluation of the scale of change and possible risks for the plan's objectives.
Stakeholder involvement	• Stakeholders are the experts for their sectors and are likely to be able to contribute relevant data and/ or information based on their own experience and observation.	• Involve stakeholders in building an evidence base and for developing scenarios and forecasts. • Involve stakeholders in co-designing innovative planning solutions and visioning.
Sectoral development	• Sectoral development can be strongly linked to climate change adaptation (such as shipping routes or coastal defence) or mitigation (such as expanding offshore renewables or restoring habitats for carbon storage). • Economic developments might influence the ability of sectors to invest in climate change adaptation. • National and international policy priorities will also influence the ability of sectors to adapt.	• Stakeholders are the experts for their sectors. Involve them for information gathering and development forecasts. • Also consider the potential socio-economic impacts of climate change, such as impacts of sea level rise on coastal communities or economic impacts of climate change (changing ecosystem services) or adaptation/mitigation actions (e.g. new conflict potential but also new opportunities for co-use). • Use climate-related change in sectors as an opportunity to strengthen the transformative dimensions of MSP, including equity.
Environmental monitoring	• Monitoring can deliver information on the changing state of species or ecosystems as well as new knowledge on e.g. affectedness and resilience.	• Adapt environmental designations and cover changes in the state of species/ ecosystems in the SEA. • Use monitoring data from other authorities/bodies, and work with research institutions to make practical use of climate models and scenarios.
Frameworks and policies	• Policy changes can directly affect MSPs and planning processes, including which sectors are given spatial priority.	• Be up to date with fast changing policy frameworks. Identify needs for adaptation. • Be aware of new conflicts and opportunities for synergies arising from changing policy landscapes. • Make multi-use, conflict resolution and co-design a priority in dialogues with stakeholders.

Dimension	Relations	Recommendation
Coherence	• Changes in the sectoral development or the marine environment and their respective designations can have an effect on the coherence of plans, especially taking into consideration the cross-border nature of climate change. • Climate change should be addressed coherently within a given sea basin. Thus the climate-related efforts of sea basin countries need to be monitored at regular basis.	• Be part of a regular exchange with neighbouring countries or across the sea basin.

Table 3: Relations of climate change and the MSP monitoring and evaluation framework

A key observation is that MSP M&E in relation to climate change will require new types of knowledge and know-how. They should be related to the impact of climate change on marine ecosystems and the marine economy but also to the ability of MSP (adequacy of measures) to support climate change adaptation and mitigation.

As outlined in the eMSP Policy Briefs on climate change MSP can contribute to **climate change mitigation** through the following measures:

- designation of offshore wind energy areas in MSP (incl. cables),
- designation of other renewable energy areas (photovoltaic, hydrogen production),
- designation of research areas for assessing the carbon footprint of planning decisions,
- designation of areas and spatial measures for sustaining carbon-rich ecosystems as a form of carbon storage ,
- designation of CCS (carbon capture and storage) areas,
- enhancing multi-use solutions to support climate change mitigation (e.g. combining different types of offshore renewably energy production).

Monitoring the above requires permanent collaboration between MSP authorities and the research sector due to the novelty of many proposed measures, the lack of information on their long term consequences beyond climate change mitigation (e.g. the impact on large-scale offshore energy inftrastructure on cultural landscapes and perceptions of the sea, as well as cumulative impacts on other sectors including defence), and important socio-economic and environmental trade-offs.

The situation may be less challenging when monitoring the effectiveness of MSP in contributing to **climate change adaptation**. This is because MSP, and in particular integrated coastal zone management (ICZM), have long years of experience in coastal defence and storm risk prevention. MSP can contribute to climate change adaptation by:

- Promoting nature conservation and nature-based solutions (NBS) for ecological resilience,
- Designating refuge areas for species threatened by climate change,
- Designating areas for coastal defence,
- Promoting storm risk preventing measures (e.g regulate the height or durability of marine constructions).[8]

In terms of innovation in M&E, there is a need to assess plans from the perspective of resilience rather than economic development and nature conservation only. M&E might benefit from a risk-based approach that considers exposure to climate change risks (of marine space, of sectors and communities), sensitivity to these risks (the ability to absorb them) and adaptive capacity (including the environmental, economic, social, cultural and political dimensions of adaptive capacity). Here M&E should be more future oriented and pay more attention to broad collaboration with stakeholders and among tiers of government. All these measures require proper monitoring and evaluation in terms of plan effectiveness, stakeholder involvement, sectoral development, changeability of policy frameworks, environmental impact, and cross-border coherence. Moreover, the social and economic consequences of climate change across different time spans should be also monitored.

Climate-smart MSP relies on a **climate-smart MSP process** that offers a platform for discussion and forecasting. MSP processes should be used to specifically:

- Envision positive impacts of climate change (e.g. on coastal tourism),
- Take into consideration outcomes of research and modeling of climate change impacts and threats,
- Develop and apply climate change scenarios,
- Consider cumulative effects of human uses (including adaptation and mitigation action) in relation to climate change.[9]

“Under a changing climate, MSP needs to implement suitable monitoring and evaluation programs to assess the effects of climate change in marine ecosystems and human activities. MSP initiatives must be built so that the actual management process generates the information needed to deal with uncertainty. Monitoring and evaluation are two of the most important phases of MSP, as without knowing what is being achieved – or not achieved – by an MSP initiative it is not possible to engage in effective adaptive policy and management.” Catarina Frazão Santos

8 eMSP NBSR Policy Brief on Climate-Smart MSP, https://www.emspproject.eu/results/
9 eMSP NBSR Policy Brief on Climate-Smart MSP, https://www.emspproject.eu/results/

The European Green Deal (EGD) is another complex topic with many links to MSP. The M&E system described can be used in the same way as for monitoring climate change. Clarity on which dimensions of the European Green Deal have spatial relevance for the sea and a labelling system on changes in sectoral developments might be helpful to increase transparency. The DG Mare project MSPGreen is developing suggestions for better integrating the EGD in MSP and is also evaluating how existing plans have referred to the EGD (www.mspgreen.eu).

According to the discussions held at within the CoP the EGD is relevant for MSP in the following key aspects:

- enhancement of the production of offshore renewable energy,
- enhancement of protection and conservation of marine ecosystems in a holistic way (expansion of protected areas and including so called no-go areas),
- food production (fishing, aquaculture).

The development of these sectors within MSP should be monitored in relation to EGD targets and ambitions. Here, sea-basin co-operation is essential.

5. The way of working in the Learning Strand (LS) and Community of Practice (CoP)

Within the Learning Strand Monitoring and Evaluation, the Communities of Practice (CoP) approach was applied in a unique way. Around 70 participants joined the meetings, spanning planners and policy-makers, the scientific community and stakeholders (e.g. environmental NGOs). Most of the participants were based in the project partner countries, but some joined from other European countries and a few even from beyond Europe.

From the very beginning the group's subject matter was divided into two themes: (1) the creation of a framework for MSP monitoring & evaluation, supplemented by practical examples, and (2) methods to monitor and evaluate the cross-border coherence of plans. During the early stages a list of needs was drawn up together with the CoP participants, listing key questions and issues arising from MSP practice and current research. Subsequent CoP meetings were conducted alternately on M&E and MSP coherence.

At the beginning, and again towards the end the CoP meetings were held as a large online assembly. During the process, however, it became necessary to split into smaller subgroups

to specifically deal with selected dimensions of M&E and to create a more dedicated work atmosphere.

The main CoP meetings were held at more or less regular intervals and considered various topics:

1. 1st meeting – introductory meeting (26 April 2022): presenting the eMSP project, the M&E learning strand, the CoP approach and planned activities.
2. 2nd meeting (21 June 2022): discussing the EU COM's report on the implementation of the MSP Directive, general concepts and tools for MSP evaluation, and a first draft of a conceptual framework for M&E.
3. 3rd meeting (15 November 2022): discussing coherence and monitoring of plans and monitoring information to be drawn from project level (e.g. offshore wind licensing).
4. 4th meeting (7 February 2023): assessing the coherence of plans (including a theoretical approach), examples of platforms and groups for exchange in the North Sea and Baltic Sea, progress and final products of the Learning Strand.
5. 5th meeting (18 April 2023): discussing results of the Learning Strand so far and potential takeaway messages, approaches to assessing plan effectiveness in England and Scotland.
6. 6th meeting (22 June 2023): discussing the European Green Deal, its application in MSP and what this means for monitoring; climate change and what this means for MSP evaluation and monitoring; progress and next steps in developing Learning Strand products.
7. 7th meeting (10 October 2023): discussing the final report of the Learning Strand and the Policy Briefs on the M&E framework and cross-border coherence.

Between the second and third CoP meeting the group was split into subgroups that discussed the following topics:

1. The conceptual framework
2. Plan effectiveness
3. Sectoral development
4. Stakeholder involvement
5. Environmental monitoring.

Additionally, two case study groups were formed to discuss coherence (trilateral: Poland, Sweden and Germany as well as bilateral of Estonia and Finland). The subgroups each contained 4-8 participants and were also held online. The subgroups then came together again in the full CoP to continue discussions there (Figure 22).

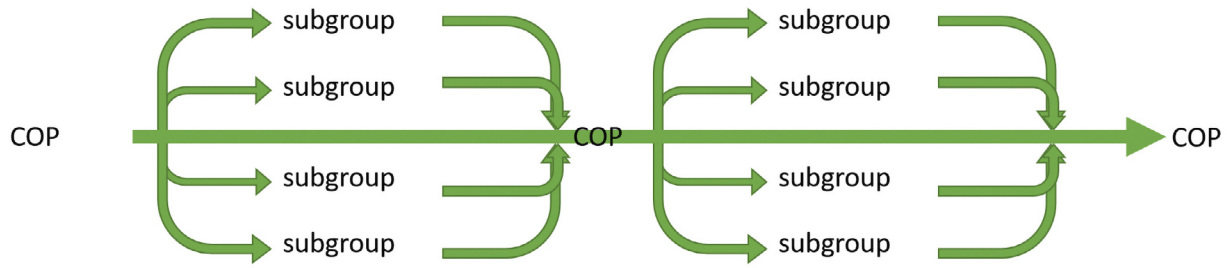


Figure 22: How the eMSP M&E CoP structured itself

In general, the importance of M&E is well recognised within the planning community, and the shared challenge of developing a workable M&E system that also includes coherence and climate change helped to attract participants. Participants remained involved in the CoP throughout the project and provided additional examples and practices for this report. Presentations from external experts broadened the scope of the CoP and attracted additional participants from outside the project region. Some discussions have been successfully transferred to national processes, such as the report assessing public participation in Polish MSP based on the Swedish example. There is also willingness in some countries to shape their M&E frameworks on the basis of the CoP discussions, the present report and Policy Briefs. Comments from the participants show that participants were able to extract very helpful information from the work of the CoP and that in some cases new processes were initiated in the partner countries.

While sticking to online meetings only, the format guaranteed the possibility of participation for externals who might not have been able to participate in person. By that, travel emissions were reduced, leading to a more climate-friendly work approach.

The CoP demonstrated usefulness of working in flexible manner, with flexible agenda but with committed group of people. It resulted in mutual learning and transfer of experience. Key preconditions of successful CoP seems following:

- committed core group of mixed character (researches and practitioners) preparing the meetings,
- importance and the urgency of the subject tackled by the CoP,
- ability of mutual learning through meetings and exchange of opinions,
- existence of the boundary objects (in our case it was miro board).

It seems that the M&E CoP has an inherent potential to continue it work in the future. It can be done in following manner:

- Sustaining CoP as Part of the existing Baltic Planners forum (regular subgroup discussing monitoring and evaluation) – drawback limitation to the Baltic Sea region

- Continuing in a new NBSR project. Focus on monitoring grand challenges (CC, biodiversity, EGD, usage of artificial intelligence in MSP monitoring, etc) how MSP is impacting them or how MSP takes them into account (these issues have been only tackled in the current report with only one CoP devoted to them),
- Extending beyond NBSR e.g. by offering to MSP Global permanent working group on M&E for broader learning and experience dissemination on the topic that is important for all MSP responsible entities.

6. Linking to our sister project: MSP-OR

Natali Santos

www.msp-or.eu

The MSP-OR project "Advancing Maritime Spatial Planning in Outermost Regions" supports Portuguese, Spanish, and French competent authorities in advancing the development of their Maritime Spatial Planning (MSP) processes in the Outermost Regions (OR) of the Azores, Madeira, Canary Islands, and French Guiana, contributing to promoting ocean governance through MSP.

WP5 – Continuous MSP monitoring & evaluation

(state of play – September 2023)

One of the key goals of the project is to further develop the theme of Monitoring and Evaluation (M&E) of MSP in the OR, starting with setting overarching guidelines and recommendations for M&E, followed by the identification and testing of indicators specific to each OR, and concluding with a proposal for monitoring plans. As for the state of play, the partners from each OR have worked on delivering the preliminary versions of Deliverable 5.1. "General Guidelines for Monitoring and Evaluating Maritime Spatial Planning in the Outermost Regions" and Deliverable 5.2 "Selection of monitoring indicators and metadata sheets":

- The report D5.1 was developed as a guide to support practitioners and competent authorities, providing conceptual background and showcasing different approaches, mechanisms, and practical examples for MSP monitoring, evaluation, and review, all the while working from the shared features and challenges between the OR, but also taking into consideration the regional specificities, the different legal contexts

and development stages of MSP in each OR. Partners are now working on filling an MSP data fiche encompassing themes such as the state of play and current phase of MSP for each OR, as well as the general approach and framework to M&E. Ultimately, the guide lays out a set of recommendations to M&E, which set the basis for the work developed in the following report D5.2.

- The report D5.2. tackles specifically the topic of indicators for MSP M&E, starting by outlining recommended criteria for indicators and guidelines for the involvement of stakeholders, followed by dedicated chapters to each OR. Regarding the Azores and Madeira, the report describes the methodology proposed for identifying and pre-selecting MSP M&E indicators in Portugal, tailored to the specific context of each OR and the performed consultation with stakeholders. In the case of the Canary Islands, the report describes the process developed for the identification and selection of MSP M&E indicators specific to the region, taking into consideration the indicators proposed in the published Spanish MSP plans, by evaluating its adequateness to the regional context and by proposing new ones. Some of these indicators will be evaluated in the framework of sectorial workshops. Concerning French Guiana, the report provides an overview of the M&E context in the region in the framework of the Strategic Sea Basin Document for French Guiana, by describing the process of identifying indicators linked to the MSP objectives and the approach to engaging stakeholders in the regular review process, and outlines the indicator review and update process.

The following steps are to further improve the selection of indicators and draw the main findings into a concise, objective, and implementation-oriented monitoring plan for public dissemination.

Co-funded by the European Union

7. Recommendations

Starting out

1. Communicate the value of evaluation and the risks of not evaluating MSP

Communicate the value of evaluation to policy-makers, stakeholders and the public. Explain that time and resources must be set aside for evaluation to be as comprehensive and practicable as possible. The risk of not evaluating a plan is that it may be ineffective, that money and other resources are wasted on a poor product or outcome (UNESCO, 2021), and that stakeholder voices are not heard when it comes to improving plans and planning processes.

2. Plan for evaluation along with the development of the plan

Monitoring and evaluation should be seen as intrinsic elements of plan development rather than an add-on. The plan and its M&E concept can be aligned more easily during the planning process, and expectations are easier to manage, e.g. on any data and information stakeholders may be able to contribute and in what format (such as monitoring data they are collecting anyway) and when in the process they will be expected to do so (e.g. sharing their thoughts on the effectiveness of the plan or specific MSP provisions).

3. See monitoring and evaluation as a systematic exercise

A systematic approach to M&E developed alongside the plan helps to understand why exactly specific information is needed, what is realistic in terms of data collection and who to approach for important information – nationally and internationally. The following key questions can help to tailor approaches:

- What can MSP realistically achieve in a given context? (e.g. legal requirements, resources, timing)
- How can we know what MSP is achieving? (e.g. impact and outcome evaluation, where to obtain relevant data)
- In terms of data and information: What do we actually need to know, rather than all the things we could explore? (guiding monitoring and observation)

4. Be as ambitious as possible in M&E …

Evaluation is an opportunity to do some deep thinking on the purpose of MSP and what we expect from a plan. Plans are opportunities to do more than allocating space through priority areas and should be ambitious. For this reason, M&E should strive to be as

comprehensive as possible. The eMSP conceptual framework sets out the various elements of M&E that are likely to apply to all countries and maritime spatial planning systems in some form. It also divides observation, monitoring and evaluation into separate sections that can be tackled individually and in different combinations and timescales. Ideally, all six dimensions of the M&E framework should be covered rather than only focusing on the effectiveness of a plan.

5. … but tailor concepts to time and place

In times of rapid change, plans must be able to quickly adapt to new circumstances. This may mean streamlining processes, including M&E. In such situations the framework can be used as a starting point for deciding which elements of M&E can realistically be pursued. Despite pressures of time and resources, it is important not to skimp on minimum requirements and to ensure M&E still supports a forward-looking MSP perspective. The risks of not applying a holistic M&E approach should be clearly communicated.

6. Plans are not a universal remedy

Remember that it is impossible to do everything in a plan. Plans have a specific frame and purpose and cannot themselves create political strategies or fill strategic gaps. We therefore need to accept the fact that planning – and planners – can only do so much. For example, plans may have issues with mutually exclusive goals, meaning they may not be able to meet all demands to the full. This should be reflected in evaluation, in particular when it comes to interpreting the results of evaluation: Were certain objectives really ever achievable?

7. Consider setting up a Community of Practice

A Community of Practice (CoP) is a good way of mobilising various stakeholders around MSP M&E, revealing their tacit knowledge and sustaining the institutional memory that has been created during the planning process. It can also help to raise awareness among the general public on the importance of proper monitoring and evaluation of maritime spatial plans. A CoP allows flexible, content-oriented discussions and the creation of relevant boundary objects. A CoP might be a perfect complement to indicator-based M&E in that it helps to understand changes in the planning context and/or the speed of maritime spatial development (e.g. the intensity of changes of various sea uses) by including relevant experts.

Putting M&E into practice

8. Understand the meaning of, and the interplay of monitoring, observation, evaluation and review

Monitoring (of the marine environment, of the effects of the plan) is different from observation (e.g. of sectoral developments), and both are different again from evaluation and review. It is important to specify clearly, from the beginning, what is to be evaluated and for what purpose (e.g. a formal review), why this is important and how this is linked to monitoring and observation. Observation and monitoring can deliver valuable data and information, in particular when linked to specific evaluation issues (e.g tracking change in patterns of sea use, tracking sectoral spatial requirements to evaluate the steering effects of a plan). Similarly, evaluation does not yield concrete results without a good grounding in relevant and timely information that is derived from suitable monitoring and observation against an agreed baseline.

9. Agree on a baseline against which to interpret change

Monitoring and evaluation usually relates to targets to be achieved (e.g. water quality, use of designated priority areas by sectors), while observation does not require any targets. Nonetheless, an agreed baseline is needed in both cases (e.g. shipping volume, use of sea space by sectors in year x) against which to interpret observations.

10. Consider climate change in all dimensions of M&E

The changing climate is affecting the marine world and maritime sectors, resulting in uncertainty and knowledge gaps for MSP and a need to deal with this challenge broadly in planning. All six dimensions of the conceptual M&E framework relate to climate change in MSP; therefore they can and should be used to track changes resulting from climate change and how a plan is responding to the impacts of climate change through adaptation and mitigation. Try to be creative in this respect. Tracking how a plan responds to climate change might be a challenge.

11. Six dimensions as part of a conceptual framework

Evaluation in MSP should ideally comprise:

- Evaluating plan effectiveness – are we reaching our goals?
- Evaluating stakeholder involvement: How were stakeholders involved and how did they perceive this?
- Evaluating coherence: How do we align our goals and developments across borders?

These evaluation strands build on the following types of monitoring and observation:

- Environmental monitoring: How is the plan affecting the environment and what are the relevant changes in state and knowledge?
- Observing sectoral development: What is happening in the maritime sectors?
- Observing policy developments: How is the framework of maritime spatial planning changing?

The diagram depicts when each of these dimensions comes into play relative to the other dimensions and what products could be related to each.

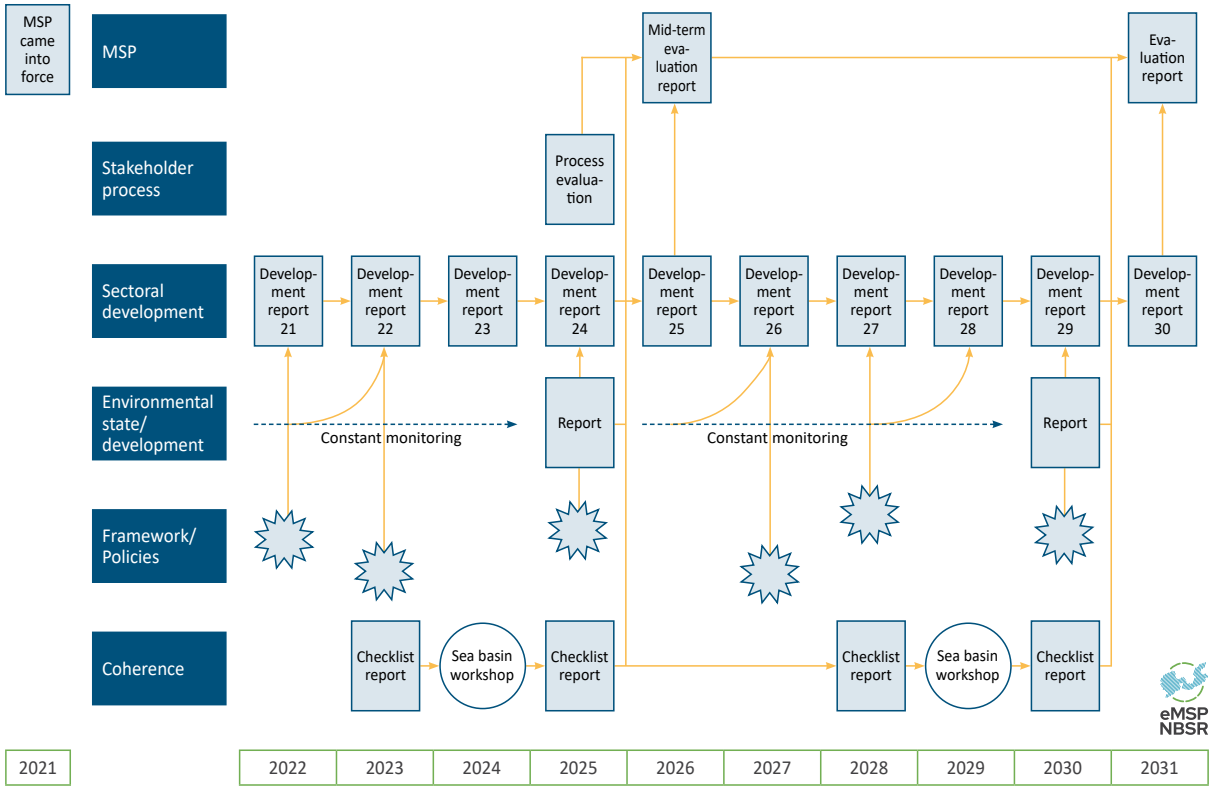


Figure 23: The conceptual framework for M&E developed by the eMSP M&E CoP

Evaluating plan effectiveness

12. Use a (simple) theory of change to evaluate plan effectiveness

Evaluating the effectiveness of a plan means evaluating its impact after the fact. How, and to what extent, have the provisions of the plan corrected the problem they were intended to address? Answering this question means establishing a "theory of change" or "intervention logic". This does not need to be complicated and can be a simple description of how the plan's policies or regulations are expected to achieve the desired effects. The intervention logic will ideally also consider how the plan intends to contribute to the desired long-term impacts of MSP.

13. Mind the attribution gap

Evaluating the final outcomes of a plan remains a challenge. Even if the plan achieves the desired steering effects – for example, if it successfully guides where particular uses can take place in marine space – it is difficult to say how this then contributes to the broader, overall objectives the plan may be supporting, such as environmental objectives. In this context, it helps to have a clear understanding of the role and responsibility MSP plays in relation to other guiding policies and regulatory tools.

When the plan is contributing to an overarching goal for maritime development (international, national, regional), it is likely that it will be classed as successful if that overall goal is reached. This is independent of the range of other tools and policies that may also have contributed to reaching this goal.

Plan evaluation should not focus on the right or wrong of the overall goal (or vision, or strategic objectives), but only on whether this goal is reached.

14. Start small and scale up from the spatial designation level

When it comes to evaluating plan effectiveness, start small! A good first step is to focus on monitoring the effectiveness of spatial designations first. For example, are priority or reservation areas having the desired steering effect in the way that was intended? Monitoring the steering effects of regulations at the project level is another useful approach to build an information base for evaluation. Do all relevant authorities (e.g. licensing authorities) understand how to use the plan and are they using it correctly to guide project decisions? Scaling up from the designation and project level is a feasible and practical approach.

15. Understand how policy coherence influences plan effectiveness

Policy incoherence is a potential impediment to plan effectiveness. Policies for designating priority areas for offshore wind, for example, need to be supported by other policies facilitating offshore energy deployment (e.g. tariffs, connection to the transmission grid etc.). It is for this reason that evaluation could also consider evaluating the respective policy context for MSP. At the same time, remember that to ensure investment in a particular sector actually occurs is not the full responsibility of MSP.

16. Consider efficiency as well as effectiveness of the plan

MSP plans aim to be efficient and effective; both aspects need to be considered in their evaluation.

Evaluating stakeholder involvement

17. Use M&E to stay in touch

Regarding M&E as a participatory process helps to keep in touch with stakeholders, policy-makers and the public throughout the MSP cycle. Do not restrict stakeholder contact to statutory consultation periods or regard it as an add-on towards the end of a plan's life. Asking stakeholders how they perceive the impact of MSP (significant or not), and how it is making an impact and why, can directly contribute to evaluation or help design the right evaluation questions. Stakeholder contact is also useful for obtaining a more nuanced understanding of the capabilities of the plan, especially when engaging in informal discussions. In this sense, Communities of Practice (CoPs) could usefully integrate stakeholders.

18. Be clear and realistic in what you are asking from stakeholders

Be clear on what is expected from stakeholders and what they should expect to contribute during what phase of the planning cycle. For example, are they being asked to provide data, or opinions, or something else? Good relations with stakeholders are very important, so transparency and trust are key. This especially applies when asking them to engage in more time-consuming activities such as surveys or focus groups. Make sure their contributions are valued and that results are communicated back to stakeholders.

Try not to combine evaluations of the planning process and the plan itself in a single study. Process evaluation should take place relatively quickly after completing the process, whereas plan evaluation (i.e., how well it is working and whether it meets expectations) is best done after a few years and may be repeated.

Consider monitoring how stakeholders are using supporting documents (e.g. explanatory documents, brochures, the plans themselves, briefing documents) as an indication of their willingness to engage with MSP.

19. Make the most of informal channels of communication

Try to connect to stakeholders informally rather than merely through formal channels as this will give more essential (and maybe non-obvious) evaluation information. Try to use interactive tools of communication (e.g., participatory mapping) to make interaction more attractive and to tap stakeholders' spatial data and knowledge. Present the added values of such tools and prepare relevant manuals.

20. Use qualitative as well as quantitative information

When it comes to evaluating stakeholder participation, qualitative information can be useful in answering "why" questions. Although they are time-consuming to organise and analyse, a focus group discussion can be useful as it is more flexible than a survey and can allow for discussion and constructive debate.

21. Offer implementation training to stakeholders

Stakeholders may not know how to work with a maritime spatial plan. Implementation training should be offered to different authorities and stakeholders. In England, it was found that the more implementation training is offered (such as leaflets, face to face meetings, YouTube videos, a marine planning game), the more the plans were being referred to in decision-making. Providing training also generates greater familiarity and trust, meaning a better response when stakeholders are asked to contribute to monitoring.

22. Keep learning

It's ok to not be perfect. Reaching out to all relevant stakeholders and ensuring meaningful involvement throughout the MSP cycle is a big ask. Keep learning from past experience and acknowledge boundaries - it may not be possible to reach every stakeholder or member of the public every time. Bear in mind that stakeholders are changing, contexts are changing, and methods of engagement can also change.

Observing sectoral developments

23. Regularly and systematically observe maritime sector developments

Observing sectoral developments with relevance to MSP can serve multiple purposes. Regular and systematic observation builds an up-to-date information base that can be used to evaluate change. An agreed baseline is important for this. A revision process might be initiated faster, as the need for change may become apparent more quickly as a result of sector observation. Constant observation of developments also provides an up-to-date knowledge base, which is indispensable for a revision anyway. Regular sector development reports can be useful for understanding the real impact of the plan and serve as a basis for discussion with stakeholders.

24. Only observe sectoral developments that are relevant to the plan

Observation of sectoral development should have a clear link to the overall vision and aim of the plan, e.g., observing the percentage area occupied by a sector. Quantitative data is useful for sector observation (area covered, licensing applications granted, licensing

applications put forward, MW per unit of space etc.), but it is also useful to look at each sector as a whole from a qualitative (descriptive) perspective (e.g. the development of sectoral strategies and their actual economic impacts).

25. Pool resources

Ask sectors how they want to be observed, especially across borders. Sectors may themselves be engaged in monitoring and observation (e.g. sending annual reports to the MSP authority), so think about how to pool resources with them across countries. As some sectors might produce data related to observations and/or measurements consider incentives to make them publicly available and so usable in MSP processes and in work with stakeholders. Strengthen international co-operation to broaden knowledge on sectoral development.

Environmental monitoring

26. Be smart when it comes to environmental monitoring

Environmental data is gathered by a wide range of organisations for a wide range of purposes. Offshore wind farm monitoring can be an important foundation for monitoring the environmental effects of implementing the plan. This data can be enriched with further monitoring data from other sectors or projects.

Some aspects will need closer monitoring than others. This affects the required data resolution and how much effort should be spent on acquiring data, either directly or from other stakeholders or sectors. It helps to explain why certain data is relevant for MSP and why it is being collected.

27. Consider AI

AI is a rapidly developing field that could find application in environmental and other forms of monitoring. The advantage of AI is that it can scan large amounts of data quickly. However, technologies are still developing, so targeted application may still be difficult. Engage with sectors, authorities and research to learn more about AI capabilities and discuss possibilities for applying different AI tools in MSP.

Frameworks and policies

28. Keep up with the dynamic policy landscape!

Keep up with the dynamics! Don’t be driven by developments – as far as possible, observe political developments to be ahead of the curve. European directives and frameworks

such as the European Green Deal contain ambitious targets which require awareness and readiness for adaptation and change. Change can be unexpected and fast, hence being connected to the political arena and to sectoral policy processes is essential.

29. Be mindful of the public

Successful MSP is closely linked to ocean literacy and especially ocean governance literacy. Be ready to explain how MSP works and how it benefits a changing society. Include in outreach actions/activities information on how MSP plans are monitored and evaluated.

Evaluating coherence (crossborder and transnational)

30. Coherence remains crucial in times of rapid change

Cross-border coherence will be even more important to monitor as sectoral developments and national planning cycles gather … speed. Coherence is essential if one wishes to avoid problems/challenges such as contradictory designations on two sides of the borders, creation of obstacles for spatial development in the neighbouring countries or hampering the proper functioning of marine ecosystems. This particularly includes sectoral developments and interests as important drivers of coherence. A forward-looking attitude is essential in this context: What developments are likely to occur in the sea in the years to come, and are all neighbouring plans taking these into account? The work on coherence should be carried out concurrently to ongoing revision processes and inform these processes in a forward-looking way (rather than looking back at past MSP processes/plans). Here it is important to pool resources across countries, for example when monitoring sector developments. Be in touch across countries to exchange data, share policy and planned sector developments.

31. Coherence gains even more importance while all countries have their MSPs in place

In contrast to previous years there are now far fewer marine areas not covered by planning designations. Changes to the existing plans could therefore have a greater impact or result in a greater need for coordination between neighbouring countries and/or at sea basin level.

After the fact

32. Use monitoring and evaluation to push for policy change in other fields

The benefit of MSP monitoring and evaluation extends beyond marine planning itself, e.g. with respect to suggestions for changes to overarching or sectoral policy. This needs to be communicated more, although some processes of changing policy can be slow.

33. Discuss a statutory requirement for MSP reporting

A statutory requirement for reporting on MSP (e.g. to Parliament or Cabinet) is helpful for designing M&E activities as it clarifies what needs to be evaluated, and with this, monitored. Examples from some countries with a statutory requirement for reporting show that this can secure a large volume of resources for these processes within the competent authorities. Statutory reporting is also useful for answering important questions politicians may have and can help to fuel a broader political debate on MSP.

34. Encourage publication of information from project level monitoring

Information derived from project level monitoring can be extremely useful for M&E, not least to help assess the need for adapting the plan. Such information is in the public domain in Belgium, for example. Discuss possibilities for making such information publicly available.

8. Summary

Maritime spatial planning in general is quite a complex tool given its overarching integrative perspective and specific legal context. Change is always a complex matter because of uncertainty and lack of knowledge. Finding the right way forward for maritime spatial planners to deal with changes in their area of responsibility is therefore no easy task. This has led to many questions within the community in recent years. What, when and how to evaluate plans to avoid getting caught in unproductive circles?

With the work done in the Monitoring and Evaluation Learning Strand of the eMSP NSBR project, we hope to address some of these issues by reducing the perceived complexity of MSP evaluation:

Cutting the elephant into pieces!

The conceptual framework enables planners to assess their MSP system, define relevant and important aspects for the development of an M&E concept with feasible tools and products for monitoring, observation and evaluation. An important point is that coherence is gaining more importance, meaning a greater need to co-develop MSP or more importance, co-developing MSPs or developing MSPs in cooperation with the neighbouring countries to tackle the changes related to MSP.

Aim for better and connected plans!

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Thank you for your interest!

This document is the result of joint work of the eMSP NBSR project partners and invited contributors.

This may be the last page of the document, but it isn't the end of the eMSP NBSR project. Learn more about the eMSP NBSR project Learning Strand and the Community of Practice on Monitoring and Evaluation in MSP here.

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