Transboundary Planning in the European Atlantic

Evaluation Process Report

Co-Financed under European Integrated Maritime Policy

CONTENTS

1. INTRODUCTION AND PURPOSE OF THE REPORT

One of the objectives of TPEA is to develop recommendations for a systematic approach to the evaluation of transboundary MSP in the TPEA pilot areas. This includes the formulation of indicative evaluation criteria, their application to key aspects of the TPEA planning process, as well as the development of recommendations for transboundary MSP evaluation in the pilot areas beyond the lifetime of TPEA itself. This report presents the results of this work.

Evaluation is still a relatively young field in MSP research and practice, which means that prior experience with MSP evaluation for TPEA to draw on is limited. Chapter 2 begins with a brief review of selected academic literature, setting out some general concepts and challenges faced by MSP evaluation. The literature is varied and has different conceptual backgrounds, including planning theory or MPA-related concepts; some presents conceptual issues and some proposes solutions. The chapter then summarises how other EU-funded transboundary MSP projects have dealt with evaluation. A selection of practical approaches to evaluation is then presented, some of which have been tested in practice. From the literature review and the lessons learned in other projects, general conclusions are drawn for transboundary MSP.

Based on chapter 2, chapter 3 presents a proposed framework for evaluating transboundary MSP within the specific context of TPEA. The framework sets out proposals for what to evaluate, when to evaluate, who should carry out the evaluation and resourcing issues. A checklist is presented containing a series of proposed evaluation criteria and indicators which has been field tested in the two pilot areas of the TPEA project. The checklist is specific to the TPEA project in that it closely mirrors the TPEA process, but is flexible enough to provide recommendations for potential adaptation to other transboundary and national MSP contexts. These suggestions look towards the future and the application of the proposed evaluation framework for transboundary MSP at a later stage.

2. OVERVIEW OF CURRENT EVALUATION THEORY AND PRACTICE

Evaluation is only just emerging as a field of MSP research and practice, in particular in transboundary MSP contexts. Over recent years a growing body of academic and technical literature has become available dealing with aspects of evaluation. Most of this literature focuses on general evaluation requirements and specific challenges posed by MSP evaluation. Some also offers proposals for evaluation tools, such as suggestions for evaluation criteria or structured evaluation questions. It should be emphasised that most of the academic literature is theoretical, and that most of the approaches described have not yet been fully tested in practice.

In addition to the literature, previous MSP projects also offer useful background information on evaluation. Transboundary MSP projects such as PlanBothnia and BaltSeaPlan have touched upon aspects of evaluation, and dedicated research projects such as MASPNOSE and MESMA have recently been completed which also deal with MSP evaluation.

This chapter presents a brief review of key evaluation concepts and challenges covered by the academic literature. It then summarises existing experience with MSP evaluation from previous MSP and research projects. It is not intended to take forward all of the suggestions made in the literature or by previous projects. Rather, they serve as a starting point and framework for considering the specific case of evaluating transboundary MSP.

2.1 Aspects highlighted by the current literature on MSP evaluation

2.1.1 Why evaluate?

Evaluation describes the overall approach and methods used to ensure that MSP is responsive to the expectations of those who rely upon it. It is a "*systematic and independent assessment of ongoing or completed projects/measures"* with the aim of determining *"whether the measures put in place have produced the desired results"* (IOC, 2006). Based on this, planning actions can then be adjusted (Douvere & Ehler 2011).

> *"MSP operates in an environment exposed to constant change. It is based on data and information likely to vary over time. The planning process must be flexible enough to react to such changes and allow plans to be revised in due course. To meet these two requirements, a transparent regular monitoring and evaluation mechanism should be part of MSP"* (European Commission 2008).

Evaluation means assessing achievements against predetermined criteria, "*usually a set of standards or management objectives*", and includes "*the systematic collection of data on selected indicators to provide managers and stakeholders with indications of the extent of progress toward the achievement of management goals and objectives*" (Ehler & Douvere 2008). Evaluation therefore is an opportunity to ask critical questions both of the MSP process itself and the outcomes of this process (e.g. a plan):

- Have the desired objectives been achieved, and if not, why not?

- What needs to be changed in order to improve outcomes?

This makes evaluation an essential element of quality assurance in MSP.

Reasons for evaluating MSP or aspects of MSP:

- Measuring progress in MSP: Are we getting better at MSP?
- Quality assurance in MSP: Is MSP efficient and appropriate?
- Improving MSP outcomes and processes: Adaptive management
    - To demonstrate the extent to which the objectives of management have been achieved,
    - To establish more systematic linkages between management objectives and actions,
    - To provide evidence-based feedback on what's working and what isn't,
- Promoting accountability
- Encouraging appropriate resource allocation

(adapted from Day 2008)

2.1.2 How to approach evaluation

2.1.2.1 General premises

Evaluation is a cyclical process which generally consists of the following steps (Day 2008):

1. Identify management objectives
2. Define key desired outcomes
3. Identify performance indicators
4. Undertake monitoring
5. Periodically assess results
6. Report findings and recommendations
7. Adjust management as necessary

One of the challenges is the inherent complexity of the MSP process and the range of tangible and intangible benefits it can potentially deliver. The reasons outlined above for evaluating MSP demonstrate that MSP evaluation needs to cover a range of different objectives and outcomes at different strategic and spatial levels. Evaluating the overall outcomes of an MSP process, for example, might focus on whether the strategic aims of MSP have been delivered, whether ecological and socio-economic objectives have been achieved, whether risk analysis has been carried out of different planning options, and whether stakeholders have been included at key stages (Cormier, in print). Evaluating the success of individual stages of the MSP process will likely focus on more specific objectives. A distinction also needs to be made between process evaluation (e.g. evaluating a transboundary planning exercise or stakeholder involvement) and outcome evaluation (e.g. the success of planning measures in achieving certain goals) (see section 2.1.3.3).

An important aspect is to recognise that the transboundary element is part of wider MSP evaluation and not a separate process. Possible benchmarks for evaluating transboundary MSP include:

- Measuring the transboundary planning process against its **stated goals**: Does it achieve the goals it has set itself? (conformity with strategic objectives)
- Measuring the transboundary planning process against **unstated goals**: Does it achieve wider societal goals or benefits?
- Measuring the transboundary planning process against the inclusion of **other statutory objectives**: Does it refer to objectives and targets contained in statutory instruments or policies? (e.g. EU Directives)
- Measuring the transboundary planning process against existing **political commitments**: Does it contribute to achieving specific political commitments that have been made?
- (Where such factors have been defined in other projects): Measuring the transboundary planning process against available **success factors in Integrated Coastal Zone Management.**

(adapted from Day 2008, Carneiro 2013)

Different performance indicators and methods of assessment are required for different parts of the MSP process and to measure specific outcomes (Carneiro 2013) (Fig. 1).

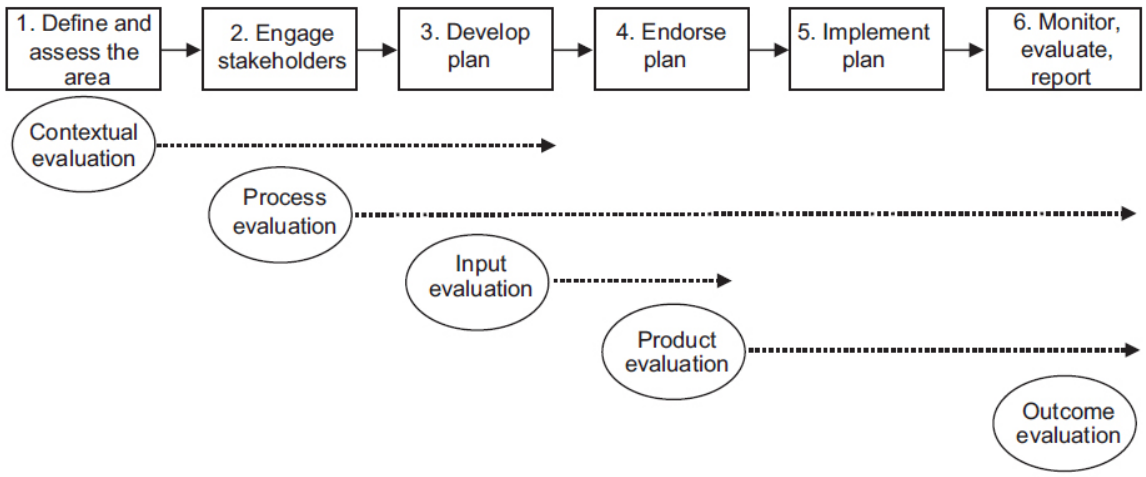

Fig. 1: Categories of evaluation for the different stages of MSP (Carneiro 2013 p. 216).

An important aspect is that evaluation design must be matched to the type of plan and the actual outcomes that are to be achieved. This means there is no standardised model for evaluation in MSP, and that fine-tuning is necessary to reflect each respective context.

2.1.2.2 Objectives and indicators

Stated operational objectives are essential for defining the focus of evaluation. The first step in designing an evaluation programme is thus to ensure that the various objectives for MSP are clearly

articulated. Six evaluation elements have been suggested for MSP together with relevant evaluation questions to help specify MSP objectives (Day 2008, Ehler & Douvere 2008):

Table 1: Evaluation elements and questions, adapted from Day (2008) and, Ehler and Douvere (2008)

Evaluation element	**Key evaluation question**	**Focus of evaluation**
Context	Where are we now?	current status
Planning	Where do we want to be? (MSP objectives)	desired outcome
Inputs	What do we need? (Who needs to do what, when, how?)	resources required
Processes	How do we go about it? (Is our planning process appropriate and effective?)	efficiency
Outputs	What were the results?	effectiveness
Outcomes	What did we achieve? (Have we achieved the objectives in the manner anticipated?)	effectiveness and appropriateness against objectives

Irrespective of the evaluation focus, objectives should be SMART (specific, measurable, achievable, realistic and timed) rather than unrealistic or remote, as it is difficult to establish meaningful conformance for very general objectives.

Indicators can then be set with respect to the objectives. Indicators are a key element from a quality assurance perspective as they form the basis for measuring performance and determining the effectiveness of the MSP process. Indicators are quantitative/qualitative statements and are parameters that can be used to describe existing situations and measure changes or trends over time (IOC, 2006). Evaluation indicators should be derived from the goals and objectives set in the MSP, differentiating between indicators for measuring the state of the environment and indicators that can determine the efficacy of the measures taken through the MSP (Douvere & Ehler 2010).

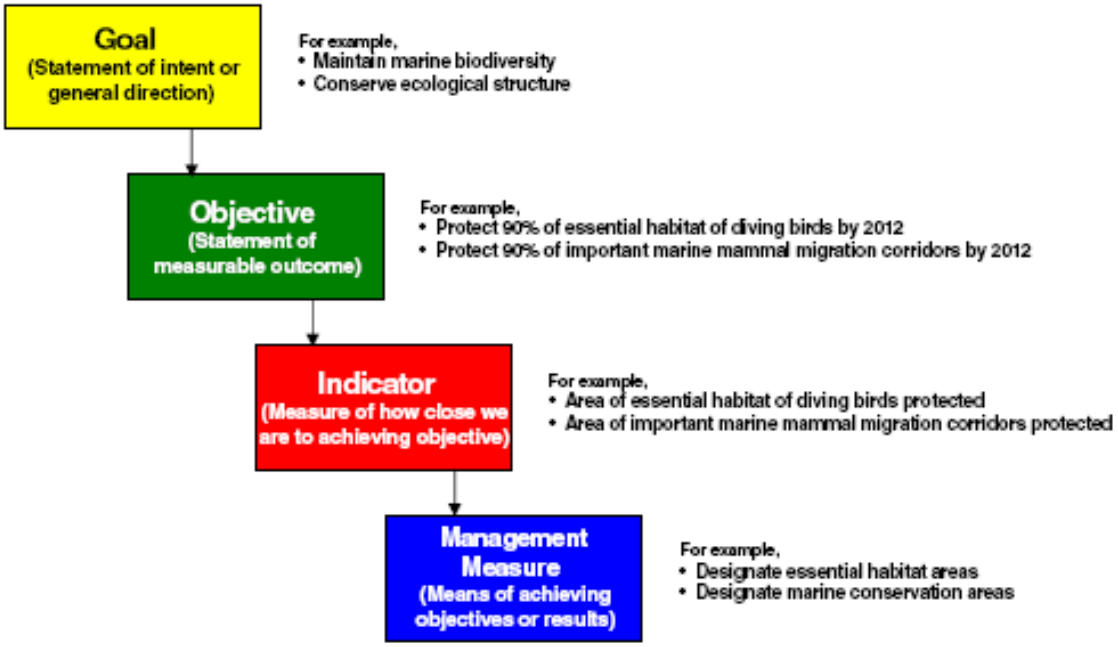

Fig. 2: The connection between goals, objectives, and indicators for maritime spatial planning (Douvere & Ehler 2010).

Rice et al. (2005) suggest properties of indicators; for example, they should be viable from both a scientific and a management perspective. Scientifically, they should be easy to measure, interpretable, grounded on scientific theory, sensitive and response specific. From a management perspective they should be cost effective, concrete, relevant to the objectives, linked to the outcome being monitored, developed inclusively and part of the management process. Indicators should also reflect aspects of concern to stakeholders. The meaning of indicators should be understood by as wide a range of stakeholders as possible (Stelzenmüller et al. 2013). The number of indicators should also be realistic and proportionate in terms of what can be measured with the given resources, but enough to ensure a comprehensive description of the system.

2.1.2.3 Outcome, performance and process evaluation

Literature differentiates between outcome evaluation, process evaluation and performance evaluation, all of which play a role in MSP evaluation.

Outcome evaluation measures the results of the plan and the planning process. Outcomes are defined as the "anticipated result of the implementation of a marine spatial management measure" (Ehler & Douvere 2008); ideally they should be clearly stated in the sense of tangible results or discrete impacts that would be expected if the objectives were fully realised (Day 2008). Outcomes, or anticipated results, can refer, for example, to the delivery of socio-economic benefits, the reduction of human pressures, or the ecological status of the area.

Performance evaluation measures MSP against less clearly defined targets, possibly relating to other deliberative processes, such as how well MSP communicates views of the future and how this might guide other policy initiatives. Criteria for success could include the degree to which a plan's recommendations are considered in other sectoral policies (Carneiro 2013).

Lastly, **process evaluation** is concerned with the overall effectiveness of the planning process, and considers whether or not the MSP process has been fully carried out. It may also cover the intrinsic value of the MSP process, such as the value of stakeholder participation and learning.

At the same time, MSP is a dynamic process open to change, which is why evaluation should also be open to considering the hidden effects of the plan and the unexpected. **Goal-free evaluation** is also a possibility, considering all the observable effects of an intervention, intended and otherwise.

2.1.2.4 The problem of attribution and causality

Measuring the impacts of a plan can be a difficult task because of the problem of attribution and causality. This particularly applies to the marine environment, where uncertainty, multiple causes to observed system effects, time lags between cause and effect and shifting baselines "erode the linearity between plan-making and, implementation, outputs and outcomes assumed in rational planning approaches" (Carneiro 2013 p.217). Problems of attribution and causality make it difficult to decide whether an observed effect is really due to the plan, to other external factors, or would have happened anyway without intervention. A key question is thus what distinct effects of MSP one can reasonably expect to measure given other interventions and the dynamics of the system (Carneiro 2013).

It has been suggested that, rather than attempting to measure impacts of the plan on the marine environment, it would be more meaningful to evaluate MSP against governance criteria that are sensitive to short-term progress, such as stakeholder satisfaction, streamlined licensing procedures, or improved integration across government agencies (Ehler & Douvere 2009). If the impacts of an MSP plan on the marine environment are to be measured, the key is to select objectives that can reasonably be achieved through MSP. It makes good sense to associate distinct indicators and targets with each step of the MSP process, which can then be evaluated more clearly. Another possible approach is to use expert or stakeholder judgement to construct the "counterfactual" (i.e. what would have happened if no planning had taken place) and to estimate the magnitude of the changes produced by the plan.

2.1.2.5 Stakeholder involvement

Carneiro (2013) emphasises that stakeholders play a key role in evaluation. Carneiro continues that if the MSP process is strongly participatory, stakeholders should be involved in defining the objectives of the plan and what it sets out to accomplish. As a consequence, they should also be asked how they would define success and help define the guiding questions for evaluation. Stakeholders should also be engaged in the actual evaluation, by, for example, identifying gaps in monitoring, confirming the usefulness of indicators, refining evaluation questions and reviewing the adequacy of the original objectives.

Stakeholders can also be involved in determining what constitutes value in the sense of a good or bad outcome. This should bear in mind that different stakeholders may value the outcomes of an intervention differently. Levels of trust and engagement need to be built up to ensure their support throughout the MSP process (Fletcher et al. 2011).

2.2 Existing European experience with evaluation in transboundary MSP contexts

A review of recent EU-funded transboundary MSP projects (Plan Bothnia, MASPNOSE, BaltSeaPlan) shows that practical experience with the evaluation of MSP in a project context is limited. Most projects stopped short of making actual planning proposals, so they either concentrate on evaluating the MSP process and/or the development of conceptual approaches to evaluation for future use. With the exception of MASPNOSE, process evaluation in these projects has been informal and based on collecting experiences from partners at the end of the project. MASPNOSE is more strongly focused on evaluation and evaluates MSP against the 10 EU MSP principles set out in the EU Roadmap (European Commission 2008). BaltSeaPlan and PlanBothnia conclude with a call for more research on evaluation and the development of dedicated evaluation tools.

Below is a short summary of the specific approaches and experiences gained in the three previous transboundary MSP projects in Europe. Thoughts are then presented on how these experiences could be taken forward in the specific context of transboundary MSP.

2.2.1 BaltSeaPlan: Need for evaluation

In BaltSeaPlan, evaluation is referred to as the last step in the MSP cycle and is described as "evaluation of the implementation process against the agreed indicators and time schedule, revision of the plan if needed or starting a new MSP process" (Schultz-Zehden & Gee 2013). None of the BaltSeaPlan pilot plans contain evaluation criteria or targets, or suggestions for an evaluation methodology. The exception is the Pilot Maritime Spatial Plan for Southern Middle Bank which is evaluated against the HELCOM/VASAB MSP principles; here, the comment is made that most of the principles have been adequately taken into account except for monitoring and evaluation (Zaucha & Matczak 2011).

One of the conclusions from BaltSeaPlan is that future initiatives should generate more information on how to monitor the consequences of a plan. It is also noted that more efforts need to be made to include evaluation and monitoring early in the MSP process as "this is easily forgotten as conflict resolution and proposing spatial solutions are more prominent in the early stages of the process". Monitoring and evaluation are also reckoned to be key issues in the context of data and information. "Data and information raised need to be matched with suitable indicators capable of describing the state of maritime space (including the marine environment in line with MSFD and trends and developments of maritime use) and the success of the plan both in terms of outputs and processes." In addition, "different forms of evaluation will be needed for different types of plan, e.g. a strategic plan vs. a zoning plan" (Schultz-Zehden & Gee 2013).

2.3.2 Plan Bothnia: Indicators for monitoring

Plan Bothnia mentions the inherent difficulties of monitoring and assessing a strategic plan which covers a long period of time. Although no suggestions are made with respect to a broader evaluation

framework or process-oriented evaluation, selected indicators are proposed for monitoring the following topics as a follow-up to the project (Backer & Frias 2012).

Table 2: Indicators proposed for monitoring the Plan Bothnia planning area (Backer & Frias 2012)

Issue	Indicator proposals (examples only)
Fishing activities	1. changes in spatial distribution of fisheries (VMS) 2. fisheries catch 3. status of fish stocks
Wind power	1. status of wind projects 2. emerging new projects
Nature conservation	1. conservation status within existing protected area designations 2. potential new designations based on emerging information
Ecosystem status	1. progress towards reaching GES (sensu EU MSFD, HELCOM BSAP) 2. status of spawning grounds/habitats
Shipping	1. changes in spatial distribution of shipping (AIS) 2. location of accidents 3. location of spills 4. alien species introductions
New uses	1. spatial distribution of new uses
Maritime related economy in the region	1. number of regional jobs/GDP creation in maritime sectors 2. increase in tourism activities

The Plan Bothnia indicators relate to relevant activities in the planning area and are designed to monitor changes following the introduction of an MSP plan. Similar types of indicators could be drawn up for transboundary MSP elsewhere. Indicators would need to focus on those issues identified as relevant in the respective transboundary context and reflect the specific objectives that have been set for the area. .

2.3.3 MASPNOSE: Operationalising the Roadmap principles

MASPNOSE had a more explicit focus on monitoring and evaluation. The final report (MASPNOSE 2012a) concludes that:

- Monitoring and evaluation of an MSP process needs to be planned at the beginning of the process as part of a Quality Assurance programme.
- Monitoring should ideally be carried out by experts who are not involved in the content of the MSP process.
- Monitoring and evaluation are currently not an explicit part of MSP processes in the Member States involved in MASPNOSE.
- Cross-border MSP processes pose specific challenges because of the potentially different phases in the policy cycle in different Member States.

The report also draws a distinction between outcome (referred to as 'state of the art') and process (referred to as 'performance-based') evaluation (Douvere & Ehler 2011) (see 3.2). "*On the one hand, evaluation refers to the evaluation of system developments once the spatial plan and associated measures have been implemented, such as species, habitats, the economy or social aspects. On the other it refers to quality control of the planning process itself. Here, the key focus is on the steps in the planning cycle and how they have been completed (e.g. has a legal basis been established, have stakeholders been involved etc.)*" (MASPNOSE 2012a p. 62).

The cross-border plans developed for Dogger Bank and Thornton Bank do not include monitoring and evaluation as intrinsic elements. Nevertheless, MASPNOSE did evaluate the MSP process in the two case studies based on a specially developed monitoring and evaluation framework. A key focus of this work was to operationalise the 10 EU MSP principles in recognition of their basic alignment with the MSP planning process.

MASPNOSE's framework for evaluation is based on the premise that different activities need to be carried out at different stages of the MSP process. To this end, MASPNOSE divided the MSP cycle into five policy phases:

1. Design and planning (where does MSP want to be and how do we get there?)
2. Inputs (what is needed to achieve the desired results?)
3. Process (how do we go about management?)
4. Output (what was done and what products or services were produced?)
5. Outcomes (what has been achieved?)

Evaluation of phases 2 and 3 measures adequacy and appropriateness and phases 4 and 5 measure the quality of delivery.

For each policy phase, MASPNOSE then defined a series of monitoring and evaluation questions. The evaluation questions can be understood as a means of operationalising the 10 Roadmap principles, although MASPNOSE found that additional questions need to be asked in the context of transboundary MSP.

Table 3: Review and assessment of the cross-border MSP processes in two case studies (MASPNOSE Deliverable 1.3.2, 2012), p.15-16

Policy phase	**Monitoring and Evaluation questions**	**Key principle**	**Principle text**
1. Planning	How has the area been defined?	1	Using MSP according to area and type of activity
	By whom, and	1 (4)	Using MSP according to area and type of activity
	When? (during the MSP process or beforehand)	1	Using MSP according to area and type of activity
	What are the values and what is the significance of the area for each country?	1	Using MSP according to area and type of activity
	Did a maritime spatial plan already exist?		
	What are the objectives for the	2	Defining objectives to guide MSP

	MSP process?		
	Who defined these objectives, when and how?	2 (4)	Defining objectives to guide MSP
	Are these objectives agreed by all parties involved, if not, by whom?	2 (4)	Defining objectives to guide MSP
	Have objectives been communicated to the public?	2 (3)	Defining objectives to guide MSP
	Which reference points do we take for M&E in this case (beginning and end), and why?	8	Incorporating monitoring and evaluation in the planning process
	Which activities are taking place?		
	Which means are allocated to the process?		
2. Inputs	Is an M&E plan available?	8	Incorporating monitoring and evaluation in the planning process
	If yes: Made by whom? What is the focus? What is it used for? Is it communicated to the stakeholders? At which stages of the policy cycle does M&E take place?	8 (3,4)	Incorporating monitoring and evaluation in the planning process
	If no: Why not?	8	Incorporating monitoring and evaluation in the planning process
	Which data was used? (scientific, local knowledge etc)	10	A strong data and knowledge base
	What role does data play in the process?	10	A strong data and knowledge base
	Which data was important but not available?	10	A strong data and knowledge base
3. Process	Which actors/institutions (from which countries) are involved in the MSP process?	4	Stakeholder participation
	Are these public/private stakeholders?	4	Stakeholder participation
	Do these actors have authority/ decision-making power?	4	Stakeholder participation
	At which stage of the process were these stakeholders involved?	4	Stakeholder participation
	How are the stakeholders involved?	4	Stakeholder participation
	Are stakeholders satisfied with the degree of participation?	4	Stakeholder participation
	Is the MSP process transparent?	3	Developing MSP in a transparent manner
	At which stage of the MSP process is transparency implemented and why?	3	Developing MSP in a transparent manner
	Who is leading the cross-border process, and what mandate do	7	Cross-border cooperation and consultation

	they have?		
	Did interactions between the countries take place at the start of the process?	7	Cross-border cooperation and consultation
	Between which countries and which actors? On which themes? Formal/informal?	7	Cross-border cooperation and consultation
	Did this change throughout the process, and why?	7	Cross-border cooperation and consultation
	Is a coordinating administrative body established for MSP within the MS and does this body have a legal and formal mandate and authority?	5	Coordination within Member States – simplifying decision processes
	Does a lack or presence of internal coordination affect the MSP process? In what way?	5	Coordination within Member States – simplifying decision processes
	Is national MSP regulated by law?	6	Ensuring the legal effect of national MSP
	Are there any opportunities for linking activities at sea with coastal activities?	9	Achieving coherence between terrestrial and maritime spatial planning – relation with ICZM
4. Output	What products and services have been delivered (actual vs planned)	8	Incorporating monitoring and evaluation in the planning process
	Are they available to the public? In which language?	3	Developing MSP in a transparent manner
5. Outcome	What did come out of the process (e.g. spatial plan, agreements between countries)	8	Incorporating monitoring and evaluation in the planning process
	What are the opportunities and bottlenecks for cross-border MSP and why?	7	Cross-border cooperation and consultation
	Are stakeholders satisfied with the outcome? Why/why not?	4	Stakeholder participation

MASPNOSE then used the questions devised to do an *ex post* evaluation exercise of its two case studies Thornton Bank and Dogger Bank. This however was purely descriptive since MASPNOSE did not specify any criteria or targets against which to measure outputs and outcomes. For Thornton Bank for example, evaluation results for three of the above process questions read as follows:

Table 4: Example evaluation results, Thornton Bank case study (MASPNOSE 2012b p. 24)

Did interactions between the countries take place at the start of the process?	Yes, there were already pre-existing contacts between Belgium and The Netherlands on a number of issues.
Between which countries and which actors? On which themes? Formal/informal?	Prior to MASPNOSE involvement, cross-border cooperation was already taking place between some Belgian and Dutch ministries. This

	cooperation mainly took place on the level of coordinating cross-border activities. Coordination was arranged through existing rules/forums, such as the ESPOO convention, SEA regulation and consultation on shipping. The coordination was a mix of formal and informal contacts.
Did this change throughout the process, and why?	Throughout the MASPNOSE project the informal contacts between Belgium and The Netherlands government stakeholders have improved.

In another deliverable, MASPNOSE refers to the following monitoring and evaluation cycle which also has useful general evaluation criteria for each step; these however are not elaborated further by the project.

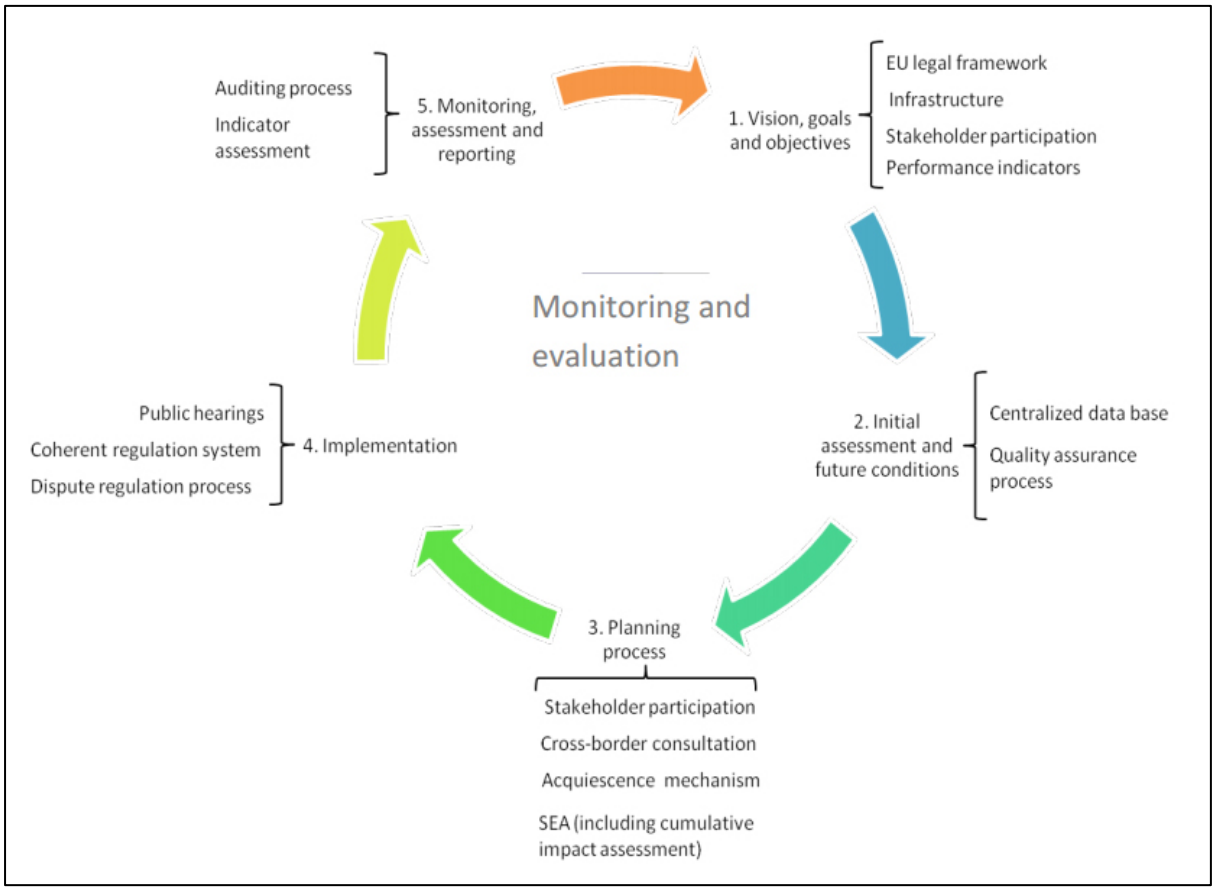

Fig. 3: A general monitoring and evaluation cycle (from de Vos 2012 p.7).

The MASPNOSE approach operationalises the 10 Roadmap principles, offering a list of useful evaluation questions for the different stages of the MSP cycle and then relating each question to one of the Roadmap principles. Conformance with the Roadmap principles could be used as a simple quality indicator for transboundary MSP processes, although the specific evaluation questions would need to be adapted to each transboundary context. At present, the approach presented is mostly descriptive; suitable indicators would also need to be added to translate each evaluation question into a measurable entity.

2.3 Other Models for Evaluation

What other experience is available for TPEA to draw on? In the academic literature, different evaluation models have been developed for the specific case of MSP. Most have not yet been applied to MSP and therefore remain theoretical. Four examples are given here, which vary in their complexity and aims, such as evaluating the planning process itself or specific impacts of MSP measures on the planning area. Laurian's approach is a simple ex-post evaluation. The approach proposed by Carneiro (2013) is structured along the lines of the MSP cycle, like the MASPNOSE approach. The MESMA approach is an example of a scientific approach set within the DPSIR framework, it explicitly also includes environmental criteria for evaluation. MRAG presents a scoring system for measuring indicators.

2.3.1 Ex-post evaluation: The Plan-Outcome Evaluation methodology

This methodology developed by Laurian et al. 2010 and described in Carneiro (2013), is a basic framework for ex-post evaluation of MSP plans. It addresses three main questions:

1. Are plan goals achieved?
2. Why and why not?
3. Are the outcomes attributable to the plan?

The method has three steps:

1. **Plan logic mapping**, representing the ways in which the plan components are expected to affect the system (excluding external factors and the problem of attribution)
2. **Goal-outcomes matching**, examining the association between plan goals and observed results by means of discriminatory indicators,
3. **Outcome explanation**, which is a participatory process in which the planning process, the results of implementation and the factors influencing the outcomes are examined. The magnitude of outcomes and the degree to which they can be attributed to the plan are also examined. Direct and indirect effects of the plan are combined to establish the aggregate value of the plan.

This is a participatory approach to planning and measuring outcomes, which could be a way of keeping stakeholders involved in the transboundary process throughout the entire planning cycle.

2.3.2 Carneiro: The planning-led approach

Building on six methodologies for plan evaluation, Carneiro (2013) proposes a generic, methodological framework for evaluating MSP (see 2.4.5 for more detail). It encompasses four steps of plan-making, implementation and results, allowing for enough flexibility to accommodate the diversity of MSP. The general criteria of this model are not prescriptive, they therefore need to be elaborated further depending on the specific MSP case.

In the first step the plan-making process is evaluated in terms of the essential steps of the plan-making process and the capabilities of the planning team. The second step analyses the contents of the planning document and also looks at the links between plan elements, outputs and outcomes. Step three of the framework is concerned with plan implementation in line with the 'performance' perspective on planning evaluation. The fourth step is the evaluation of plan outcomes and impacts. How to conduct this type of evaluation varies widely from case to case. Finally, although not explicitly included in the framework, it is pointed out that any MSP evaluation will have to include a process for communicating results and promoting their utilisation. Carneiro also refers to the importance of learning and the need to evaluate organisational performance.

A comprehensive model for analysing the transboundary MSP process, the quality of any planning outputs and their implementation. The method proposed makes clear that evaluation of transboundary planning outcomes and impacts would depend on setting appropriate targets and criteria for evaluation.

2.3.3 MESMA: An ecosystem-led approach

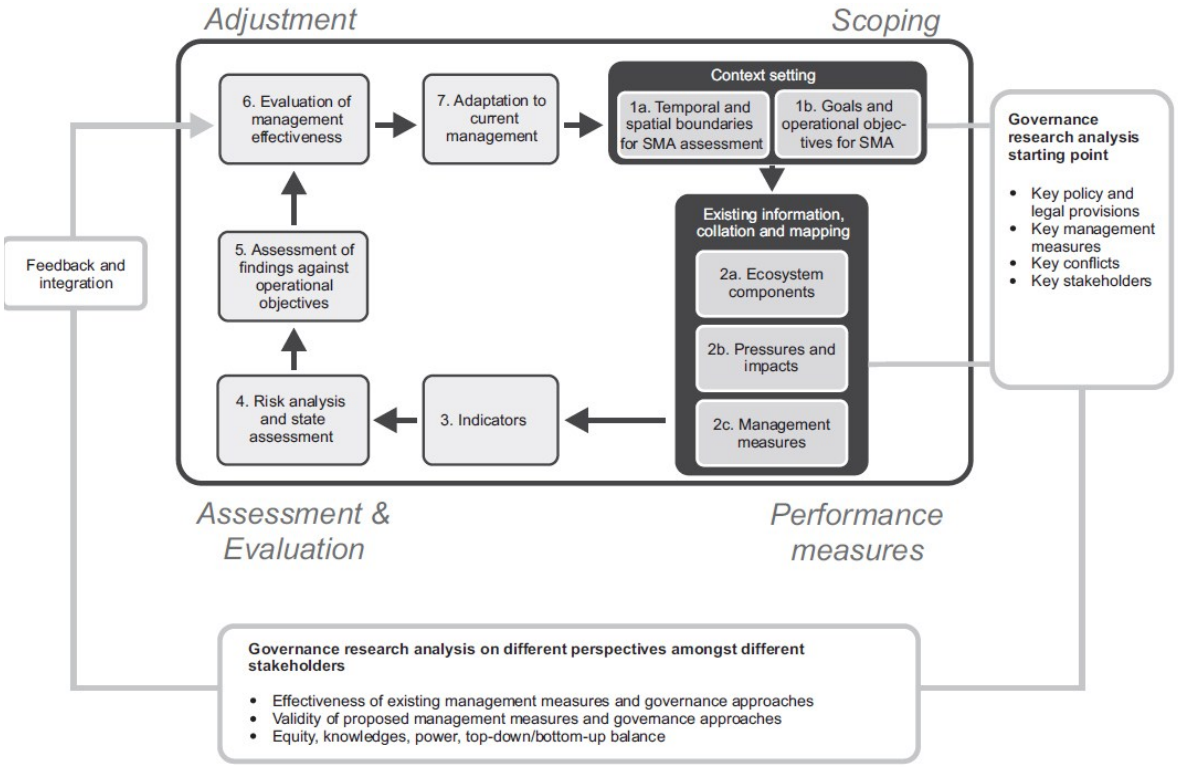

Fig. 4: The MESMA evaluation model (www.mesma.eu)

The MESMA project provides a comprehensive framework for monitoring and evaluating spatially managed areas which was tested across nine case study areas in Europe (www.mesma.eu). The idea of the framework is to be generic enough to apply to established MSP plans or projects still in the development phase. The MESMA model is based on an ecosystem perspective and the premise that MSP seeks to maintain or improve the ecological status of the marine environment, so includes specific reference to the marine ecosystem, using the DPSIR approach as a way of describing human impacts on the environment and state and pressure indicators (Stelzenmüller et al. 2013).

Step1: Definition of the spatial and temporal boundaries of the area and of high level goals and operational objectives.

Step2: Identification, collation and mapping of existing information

- **Step 2a:** mapping of ecosystem components relevant to the set of objectives;
- **Step 2b:** mapping of pressures and impacts;

This is a detailed analysis of the pressures exerted by human activities and their combined impacts on ecosystem components; requires both a method for translating human activities into ecosystem specific pressures, and a measure of sensitivity of ecosystem components to those pressures.

- **Step 2c:** summary of existing or proposed management measures; (e.g. national laws, international policies, codes of conduct, regulations of human use).

Step 3: Definition of performance measures or indicators together with their reference points (e.g. indicators to measure the status of ecosystem components and operational objectives, e.g. the abundance of a certain species, the surface area covered by a certain habitat). Thresholds or reference points should be defined against which the status of the indicators can be assessed.

Step 4: State assessment or risk analysis (state assessment evaluates the performance of a current management through monitoring and auditing, risk analysis evaluates the predicted effectiveness of proposed management scenarios).

Step 5: Summary of assessment results against operational objectives (technical summary of Step 4)

Step 6: Evaluation of management effectiveness (assessing whether the operational objectives for the area have been achieved with respect to the key pressures from particular human activities). Findings should identify why something does or does not work and reflect on the sources of uncertainty in the assessment results. This also includes some guidance on how to deal with uncertainty or unforeseen consequences in time and space. A comprehensive synthesis should also link to both a description of the level of stakeholder satisfaction and acceptance, and an assessment of the overall balance between high-level policy objectives and local objectives. A detailed governance research analysis will complement such an evaluation in order to provide an understanding of the social and political context, other incentives for reaching the operational goals and issues such as equity.

Step 7: Summary of assessment results and formulation of recommendations (e.g., alternative management scenarios).

Comprehensive, although complex model which specifically includes the ecosystem perspective. This could be useful background for recommending an evaluation process covering the conduct and outcome of transboundary planning exercises in the longer term.

2.3.4 MRAG: Measuring progress towards MSP

In a contract to DG MARE, a list of indicators has been drawn up to measure the relative progress of Member States regarding MSP (MRAG 2008). The same indicators could also be applied in a transboundary context.

Seven indicators are proposed, along with a scoring guide from zero to five to assess relative progress in each category. Text descriptions give an indication of the status of each indicator. The top score indicates a near "perfect" practice, representing what would be expected in a mature MSP system. It is proposed that the actual scoring should be done on the basis of expert opinion and questionnaires.

The top score of five translates into the following status for each of the indicators (Table 5):

Table 5: Draft table of indicators developed by MRAG (2008) p. 64.

Policy and legal framework	**Data and information management**	**Permitting and licensing**	**Consultation**	**Sector conflict management**	**Cross-border co-operation**	**Implementation of MSP**
Comprehensive MSP legislation adopted and implemented. Adoption of necessary sub-legislation. Law has stood the test of time, no serious litigation	Comprehensive data exists on marine substrates, habitats, ecosystem functions, all species of commercial interest and maritime sectoral activities for the coastal zone and whole EEZ Comprehensive socio-economic data on maritime activities (location, economic, social, cultural values) for the coastal zone and whole EEZ All data are processed into useful information and available in GIS format (centralized data facility). Data are easily available and effectively disseminated when required	Streamlined and transparent process with information readily available. No contradiction Simplified and clear procedures Clear mechanism to coordinate and manage overall decision making process for the allocation of space *or* a one stop shop – a single application process that can cover multiple licence applications and take into account overarching MSP objectives	Requirement for active consultation on all plans and projects Information on most plans and projects activity promoted to the public through a number of forms Findings are reflected in the decision Consideration is documented Procedures for revisions and consultation on evaluation	Clearly defined procedure as well as principles and objectives for decision-making Priorities agreed within a geo-graphic context to guide decision-making Compensation measures for persisting conflicts	Mandatory trans-boundary consultation procedures implemented with joint decision-making and conflict resolution Legislation and related mechanism for cooperation and coordination across land-sea boundaries and administrative boundaries	A comprehensive plan/system defining legally binding priorities within a geo-graphic context has been developed and is being effectively implemented at regional and national levels Effective cross-sectoral and vertical coordination Monitoring mechanisms in place Regular reviews undertaken and plans evaluated in this light

The indicators presented here relate to issues that are also important in transboundary planning contexts (e.g. licensing and permitting, data and information, cooperation). Although basic, this could be a useful starting point for discussing indicators for transboundary MSP initiatives. Scoring indicators on a scale from 0 to 5 (especially as a participative exercise) could be a way to approach those aspects of MSP where numerical targets or thresholds are difficult to define. It is also useful to explore differences in scoring by different participants, e.g. by asking why these differences arise and how they impact on the MSP process.

2.3.5 A model for comprehensive MSP evaluation

Drawing together the frameworks proposed by Carneiro (2013) and Baer (1999), Juan Luis Suárez de Vivero (University of Seville) proposes the following criteria as a comprehensive framework for MSP evaluation:

0. Organisation responsible for planning

- Is the administrative authority indicated?
- Is the role of the preparing agency adequately explained?

1. Evaluation of the plan–making process

1.1. Stakeholder participation
- Process for facilitating stakeholder participation
- Degree of effective participation
- Influence of participation on the final plan

1.2. Validly of data and analyses
- Incorporation of best available information
- Use of suitable methods and technologies
- Robustness, clarity and reproducibility of analyses

1.3. Consideration of alternatives
- Methods for scenario-building
- Comprehensiveness and adequacy justification of scenarios
- Procedures and methods for scenario assessment

1.4. Prospective impact assessment
- Comprehensiveness and adequacy justification of scenarios
- Procedures and methods for scenario assessment

1.5. Adequacy of resources (for plan-making)
- Evolution of resources over the plan-making process, inc. sources of funding
- Ratio between available and necessary resources

2. Evaluation of plan contents

2.1. Internal coherence
- Logic of plan components-vision, goals, objectives, measures and underlying assumptions and analyses

2.2. Relevance of plan for the region or country
- Relationships between the main needs and ambition of the region or country (socio-economic, environmental, cultural, governance) and the components of the plan

2.3. Conformance with planning system
- Conformance with strategic principles and objectives
- Conformance with statutory rules and guidance
- Harmonisation/conformance of planning methods

2.4. External coherence
- Harmonisation between the analyses and proposal in the plan and those of other policy and management instruments

2.5. Guidance for implementation
- Comprehensiveness and clarity of provisions and schedule for implementation
- Clarity and adequacy of roles and responsibilities
- Adequacy of follow-up mechanisms
- Adequacy of resources for implementation

2.6. Approach, data and methodology
- Detail of descriptions of methodology
- Information about who conducted the analyses

2.7. Quality of communication
- Clarity of the text, given the intended audience
- Clarity of data and analyses
- Balance between level of detail and reader/user-friendliness

2.8. Plan format
- Structural correctness of the plan document (in view of intended use)

3. Evaluation of plan implementation

3.1. Prescribed steps and outputs
- Degree to which prescribed steps and products o implementation are or have been followed and produced

3.2. Adequacy of resources (for implementation)
- Evolution of resources over the implementation process, int. sources of funding
- Ratio between available and necessary resources

3.3. Utilisation
- Plan utilisation in decision-making (political level)
- Plan utilisation in management and development control (operational/technical level).
- Alignment of other policy and management instruments with the plan

4. Evaluation of plan outcomes and impacts

- Observed (mid-term) outcomes and (long term) impacts assessed against stated plan objectives and/or broader societal aspirations, included a measure of the degree to which outcomes and impacts can be attributed to the plan.

5. Process for communicating results

- Is the client or reading public identified?
- Are the ideas convincingly presented, given the nature of the audience?

Irrespective of whether a transboundary MSP exercise covers all the steps of the MSP planning cycle, this is a useful starting point for thinking about the various elements that could be included in the evaluation of transboundary MSP.

2.4 Summary

The purpose of MSP evaluation is to ensure quality in MSP by means of a regular, standardised review of processes and outputs. The review of existing evaluation practice and literature shows that various evaluation models have been developed from a range of perspectives, including more ecological and more planning-based perspectives and including more process- and more outcome-oriented models. The review also shows there is no ready-made solution or standardised protocol, implying that evaluation programmes need to be tailored to the specific MSP purpose.

Only someEuropean countries such as Germany, Belgium, Portugal, the UK and the Netherlands have a statutory system for MSP, and they are still in relatively early stages of implementing MSP. As a result, outcome evaluation has so far rarely been carried out in practice. Elements still missing in current evaluation models include land-sea interaction, as well as suggestions for measuring MSP outcomes against sustainable development objectives; there is also little experience with evaluating specific transboundary elements of MSP such as cooperation between countries.

With the exception of MASPNOSE, the literature and examples presented here have not been developed for the specific case of transboundary MSP. It should also be recognised that they have been drawn up mostly in the context of research projects, not statutory or officially recognised processes. They may therefore take insufficient account of the constraints within which public authorities operate. A key question is therefore how these models can be adapted to better reflect these constraints whilst still ensuring adequate evaluation of the transboundary elements of MSP.

2.4.1 General principles

The literature and the examples set out above suggest general principles for MSP evaluation that apply regardless of the specific setting or scale of MSP. One is that evaluation should **cover the MSP process comprehensively**, including the planning and implementation stages: this also applies to transboundary MSP. Another is that MSP evaluation should **build on a clear understanding of what should be evaluated**, which in turn depends on setting clear objectives for MSP at different stages of the MSP cycle. In the transboundary MSP context for example, if evaluation is to be concerned with the transboundary planning process, what are the objectives the planning process is looking to achieve? If evaluation is to be concerned with specific outputs, what are the outputs transboundary MSP is seeking to produce? Objectives can also be set for performance-related criteria such as stakeholder involvement or the influence of transboundary MSP on other strategies or policies. The

clearer the objectives and desired outcomes, , the easier it is to develop appropriate evaluation criteria. Literature points out that different evaluation criteria will likely apply to different stages of the MSP cycle, these will need to be carefully considered by the countries involved in transboundary MSP exercises. As a general rule, transboundary MSP evaluation should comprise evaluation of context, process, output and outcomes.

Another general principle is that evaluation criteria should be matched by suitable **indicators**. Good indicators for transboundary MSP are measurable, cost-effective, concrete, interpretable, grounded, sensitive, responsive and specific. Last not least, **stakeholder involvement** is an important part of successful evaluation. This can take many forms ranging from communication of evaluation results to full-scale stakeholder involvement in defining the evaluation criteria, indicators and measures of success. Each transboundary MSP initiative will need to define for itself which scale of stakeholder involvement is desired in the evaluation process, and what the benefit of such an inclusive approach might be.

2.4.2 Specific learning needs during early stages of transboundary MSP

Given that MSP, and especially transboundary MSP, is still a young practice, learning needs particularly concern the organisation of the transboundary planning process (for example, exploring data exchange and management, exploring the possible development of joint objectives, coordination and collaboration), as well as the delivery of strategic and specific objectives for transboundary planning areas (e.g. improved coordination of licensing processes). Transboundary evaluation frameworks should thus include output and performance-related criteria.

Organisational learning is another important consideration, since one of the outcomes of transboundary MSP exercises may propose, subject to consideration of the cost effectiveness and value added, new administrative routines and structures relevant to the transboundary MSP process (e.g. with respect to data exchange). This implies that governance structures for transboundary MSP need to be adaptable enough to accommodate the lessons learned from evaluation.

2.4.3 Basic premises for the TPEA approach

One question not addressed above is the extent to which transboundary MSP should be incorporated in evaluation exercises for national or sub-national MSP. From the perspective of efficient use of resources and coordination with MSP processes, it is suggested that transboundary MSP evaluation is carried out as an **integral part of MSP evaluation** in a national context (see also 3.6).

Taking one step further than the examples given above, TPEA is seeking to develop an approach to evaluation of transboundary MSP which is in keeping with the possibilities open to authorities with responsibility for MSP within their jurisdictions, and which does not propose unrealistic requirements for evaluation. The approach set out in the section below therefore takes account of the experience and recommendations summarised above, but is also geared towards the **practical possibilities for transboundary MSP evaluation in official contexts**.

3 A PROPOSED APPROACH TO EVALUATING TRANSBOUNDARY MSP IN THE TPEA PILOT AREAS

In the light of chapter 2, we now set out proposals for a framework for evaluating the conduct and outcome of transboundary MSP in the two TPEA pilot areas. The framework is based on the insight that evaluation design should be specific to each MSP case, which is why the details provided here are TPEA-specific, reflecting TPEA's aims and also TPEA's approach and structure. Nevertheless, the aim is also to provide enough flexibility for consideration by others to adapt this framework. Cost effectiveness and proportionality are important considerations in the development of this framework, although it needs to be acknowledged that transboundary evaluation will bring with it additional tasks.

The TPEA evaluation framework sets out to answer the following questions:

- **What is to be evaluated?**
  - Section 3.1: Proposals for evaluation criteria,
  - Indicators for transboundary MSP in the pilot areas.

- **When should evaluation be carried out?**
  - Section 3.2: Proposals for a timed programme of evaluation, ensuring periodic assessment of conditions and levels of use.

- **Who should evaluate?**
  - Section 3.3: Proposed evaluation responsibilities and suggestions for the involvement of stakeholders.

- **How are results to be presented?**
  - Section 3.4: Communication of evaluation results, and suggestions for target groups and style of communication.

- **Who should be responsible for spatial data collection?**
  - Section 3.5: Suggestions for spatial data collection and analysis and coordination of monitoring data.

- **What resources are needed?**
  - Section 3.6: Ensuring cost-effectiveness.

Each of these is now considered in turn.

3.1 What is to be evaluated?

3.1.1 Six blocks for comprehensive MSP evaluation

Section 2.4.5 has shown that a comprehensive evaluation framework should ideally consist of the following elements:

0. Organisation responsible for planning
1. Evaluation of the plan-making process
2. Evaluation of plan contents
3. Evaluation of plan implementation
4. Evaluation of plan outcomes and impact
5. Process for communicating results

Given the main TPEA objective (to develop recommendations for a transboundary approach to MSP in two pilot areas), the TPEA evaluation framework mostly focuses on item 1 "**evaluation of the plan-making process**". Naturally, states involved in transboundary MSP will bring into consideration their own approach to MSP evaluation, which is why the framework only focuses on the **transboundary elements** of the plan-making process. The guiding question in developing this framework has been "What is required of the transboundary MSP process to ensure it meets accepted quality standards?"

TPEA did not produce full marine spatial plans or implement any measures (Fig. 5), which is why we do not refer to items 2 and 3 (evaluation of plan contents and plan implementation). However, as full marine spatial plans will be required in the future, suggestions for how these could be taken forward are presented. Suggestions are also made with respect to item 5 "communication of evaluation results". Once again, these suggestions focus on the transboundary elements of MSP.

3.1.2 Evaluation criteria and indicators

Based on the overall TPEA structure (Fig. 5), and based on TPEA's own experience of the transboundary process, we have drawn up a list of **criteria for evaluating transboundary MSP** in the two pilot areas. These criteria cover a range of institutional and spatial issues that emerged as important.

The logic of the criteria closely follows the TPEA process diagram set out in Fig. 5. Like TPEA itself, evaluation is thus divided into the three stages of preparation, diagnosis, and planning, reflecting the corresponding stages of the MSP planning cycle. Data and information, stakeholder engagement and communication are listed as separate categories of evaluation as these transcend the stages of the planning cycle.

Each criterion has been assigned **at least one descriptive indicator** designed to be as specific, measurable, interpretable and responsive as possible. Like the criteria, indicators were determined

collaboratively by the TPEA project partners based on the review of MSP evaluation literature and experience from other projects.

The indicators have been tested and refined by the project partners for each pilot area to ensure their sensitivity, ease of use and relevance for improving transboundary MSP as part of an adaptive approach.

3.1.3 Indicative quality checklists

We provide the criteria and indicators in the form of indicative **quality checklists for transboundary MSP.** Their main purpose is to highlight areas already well covered, and particularly also point to gaps and any unresolved issues**.**

An indicative checklist for transboundary MSP processes

This quality checklist focuses on the transboundary planning process, covering preparatory steps, definition and analysis of the transboundary area, planning and communication. We have applied and tested this indicative checklist using the transboundary process in the two pilot areas as an example (see Pilot Areas Report, www.tpeamaritime.eu).

An indicative checklist for transboundary MSP implementation, outcomes and impacts

In this quality checklist, we propose criteria for evaluating MSP contents and implementation at a future point in time. Since this type of evaluation was outside the scope of TPEA, these are suggestions only, listing ideas on how post-project evaluation might be undertaken at a later stage.

3.1.4 How to use the checklists

It is not intended that each point on the checklist should have to be addressed comprehensively. The checklist should be understood as a tool to identify and prioritise key elements for further development in the subsequent planning cycle, giving due regard to the resources available. The indicative evaluation checklists should therefore be understood as flexible instruments which can be expanded and adapted according to need. Categories for rating each indicator, for example, can be refined as more experience with MSP is gathered and better information becomes available. Examples for adapting and applying the checklist in practice are provided in the separate Pilot Areas Report (download from www.tpeamaritime.eu), covering both the Northern Ireland/Ireland and the Spain/Portugal TPEA pilot cases.

We envisage use of the checklist to be an iterative process which would take place at regular intervals beyond the lifetime of TPEA. During this process, the checklist would be filled in by each country involved in the transboundary exercise, either in a collaborative process or individually with subsequent discussion of results (see also section 3.2).

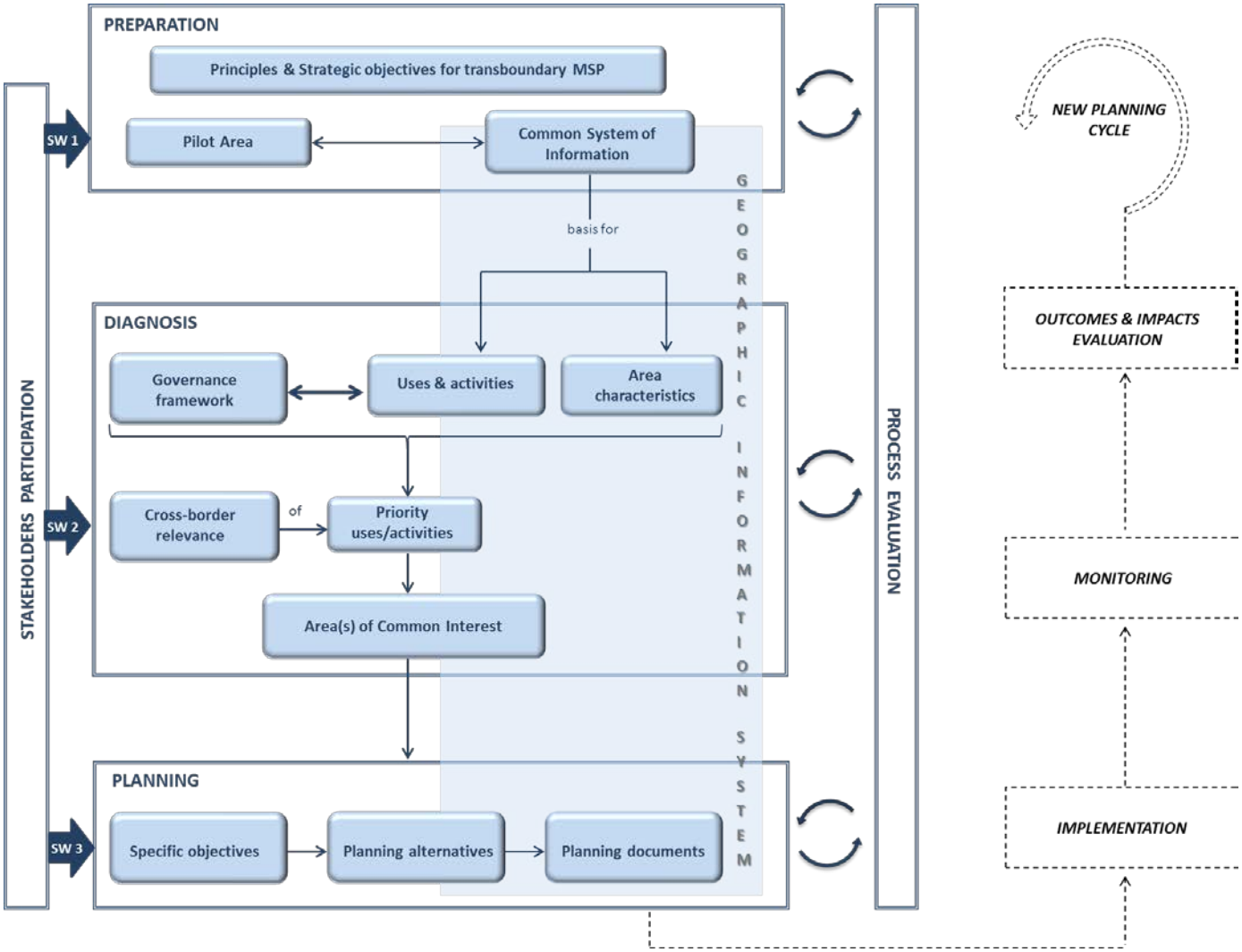

Fig. 5: The TPEA process diagram

3.1.5 The indicative TPEA quality checklist for transboundary MSP processes

A. Process evaluation				
Preparation				
Criterion	**Indicator**	**Country**	**yes/partly/no**	**Space for comments**
1. Legal and administrative framework	a. Formal jurisdictional MSP systems are in place.	Country 1		
		Country 2		
		(Country 3…)		
	b. Legal instruments and administrative processes are in place to facilitate transboundary cooperation in MSP activities.	Country 1		
		Country 2		
2. Institutional capacity and cooperation	a. Authorities have responsibility for transboundary cooperation in MSP.	Country 1		
		Country 2		
	b. The roles and responsibilities of organisations in transboundary MSP have been clearly defined and communicated.	Country 1		
		Country 2		
	c. There are institutional resources (eg. staffing, skills, funding, data availability) for organisations to engage in transboundary cooperation in MSP.	Country 1		
		Country 2		
	d. There is effective formalised communication between organisations across borders.	national level		
		regional level		
		local level		
	e. There is equitable sharing of transboundary MSP responsibilities and tasks across borders.			
3. Trans-boundary MSP area	a. An agreed transboundary area has been defined for MSP purposes.			
	b. Stakeholders have been involved in the selection of the transboundary area.			
4. Formulation of strategic	a. Agreed strategic objectives for the transboundary MSP process have been established.			

objectives	b. Economic, social and environmental opportunities have been incorporated into the strategic objectives.		
	c. Principles of transboundary cooperation, governance and MSP have been incorporated into the strategic objectives.		
	d. Stakeholders have been included in the formulation of strategic objectives.		
Diagnosis			
5. Area characteristics	a. The ecological, economic and social character of the transboundary area has been described.		
6. Uses & activities and cross-border relevance of coastal and maritime issues	a. Key pressures and opportunities for the transboundary area in question have been identified.		
	b. There has been cross-border deliberation on relevant transboundary issues, involving stakeholders and the policy community.		
7. Governance framework	a. The existing and emerging policy, regulatory and management framework for planning and sectoral interests relevant to transboundary issues has been drawn up.		
	b. An analysis has been carried out of the consistencies and inconsistencies of the policy, regulatory and management framework, including across borders.		
	c. Any gaps in the policy, regulatory and management framework needed for consideration of transboundary issues have been identified.		
	d. There has been consideration of the relationship between MSP, ICZM and terrestrial planning across the transboundary area.		
	e. Stakeholders have been involved in drawing up the policy, regulatory and management framework.		
	f. Planners understand the institutional setup relevant to MSP governance in each country.		

8. Area of common interest	a. Areas of common interest have been defined		
Planning			
9. Specific objectives	a. Agreed specific objectives for the transboundary area in question have been established.		
	b. Economic, social and environmental opportunities have been incorporated into the objectives.		
	c. Principles of transboundary cooperation, governance and MSP have been incorporated into the specific objectives.		
	d. Stakeholders have been included in the formulation of specific objectives.		
10. Planning alternatives (options and scenarios)	a. Options and scenarios for the transboundary area have been given consideration.		
	b. There is coherence between the options and scenarios presented and the wider policy, regulatory and management framework.		
	c. Methods for the visualisation and analysis of issues, options and scenarios have been used.		
11. Planning documents	a. Suitable methods for visualising planning data have been used.		
	b. The boundaries of the planning area have been clearly delineated.		
	c. Strategic and specific proposals for the transboundary area have been drawn up.		
	d. There has been consultation with stakeholders regarding the strategic and specific proposals for the transboundary area.		
	e. There is evidence for coherence across spatial scales and conformance with other policy principles and objectives.		
	f. There is coherence between the strategic and specific goals, objectives and measures set out in the planning proposals.		
	g. Planning documents contain an agreed schedule for		

	implementation			
B. Data and information				
12.Data availability and quality	a. The knowledge and data needs for full consideration of transboundary issues have been identified.			
	b. The best available, relevant data has been used in considering transboundary issues, options and scenarios.			
	c. The metadata is complete for all data sets used.			
	d. A suitable, shared system for data management and analysis has been used.			
	e. Data is consistent across borders (Please specify categories – e.g.:).	Shipping		
		Offshore wind		
		Fishing		
		Heritage		
		Environment		
		Sand and gravel		
		Cables and pipelines		
		….		
		….		
	f. There has been cross-border cooperation in gathering and managing data.			
	g. Stakeholders have been involved in providing relevant data.			
C. Stakeholder engagement				
13.Stakeholder engagement	a. Potential participants representing statutory and non-statutory organisations have been identified through stakeholder analysis.			
	b. Actual stakeholder engagement has been representative of interests, both within and across jurisdictions.			
	c. Stakeholders have participated at critical points throughout the transboundary MSP process.			
	d. Methods have been used that have fostered collaborative and equitable engagement.			

	e. Stakeholder perspectives have been incorporated in the transboundary MSP process.		
	f. Stakeholders have been satisfied with their level of participation and the incorporation of their input.		
D. Communication			
14. Communi-cation	a. Transparency has been ensured by regular reporting of the transboundary MSP process.		
	b. Non-technical information about the process has been communicated to the wider public.		
	c. Events communicating the transboundary MSP process have been held.		
	d. Links have been made to related processes and organisations and the academic community.		
	e. Results and recommendations have been clearly communicated to policy-makers.		
	f. The transboundary MSP process has been conducted and communicated in languages that are accessible to participants.		

3.1.6 The indicative TPEA quality checklist for implementation, outcome and impact evaluation of transboundary MSP

The sections outlined below represent suggestions for post-project evaluation from a general evaluation perspective. These sections only apply if MSP proposals are actually implemented in the pilot areas. In such a case, more specific outcome indicators would need to be drawn up for each of the pilot areas based on the specific objectives for each. More discussion would be needed on the practical implications of these indicators.

Criterion	Indicator	yes/partly/no	comments
E. Implementation			
15. Roles, responsi-bilities and decision-making	a. Roles and responsibilities for implementation have been clearly assigned.		
	b. There is clarity on cross-border decision-making structures and processes for MSP.		
	c. Licensing decisions affecting the transboundary MSP area are taken in a coordinated way and in line with the proposals set out in the planning documents.		
16. Resources	a. Adequate resources have been made available within the responsible organisations for transboundary coordination.		
17. Implemen-tation	a. The proposals set out in the planning documents have been implemented.		
	b. The specific objectives set out in the planning documents have been achieved.		
F. Outcomes and impact evaluation			
18.Achievement of objectives	a. There has been an assessment of the extent to which strategic objectives have been met.		
	b. Difficulties hindering the achievement of objectives have been identified.		
	c. The uptake of wider recommendations has been reviewed.		
	d. The implementation of planning proposals has been reviewed.		
	e. Monitoring is in place to facilitate the evaluation and impacts of the planning outcomes.		
	f. The outcomes and impacts of planning provisions have been evaluated.		

	g. The evaluation framework has been reviewed.		
19. Wider benefits	a. Wider benefits of the transboundary MSP process, such as for cross-border governance, institutional capacity-building, skills development, communication and learning, have been identified and achieved.		

The following sections set out some of the practical considerations involved in transboundary MSP evaluation and recommendations for dealing with them. As above, we base our suggestions on the experiences gained in the TPEA pilot areas, but are looking to the future, assuming that transboundary evaluation will be one of the elements of full MSP processes. The recommendations therefore primarily apply to the TPEA pilot areas, but may also serve as more general recommendations for transboundary MSP in other contexts.

3.2 When should evaluation be carried out?

Evaluation can either be a **continuous** process in which indicators are defined and systematically compared with the plan's goals and objectives, or a **periodic** process defined in accordance with specific steps of the plan's application (IOC, 2006). The BALANCE project for example recommended a periodic approach, stating that reporting should preferably be carried out annually and then feed into each step of the MSP process in order to improve the performance of each step and to make the entire MSP process more efficient (Ekebom et al. 2008). However, the cost effectiveness of such an approach would require careful consideration and less onerous approaches should also be considered. In any case, a timed programme of evaluation is recommended, ensuring periodic assessment of conditions and levels of use.

In the initial developmental stages of transboundary MSP, it could be recommended that **process evaluation should be carried out as part of regular meetings using the adaptive process checklist presented above**. This is less resource intensive than a formal review process. Frequent early process evaluation is important as partners are still getting to know each other and learning to understand each other's institutional, political, cultural and procedural setup. Routines for collaboration and cooperation take time to be established, so regular MSP process evaluation may ensure that mistakes are quickly corrected. Evaluation at this early stage may also contribute to generating a sense of mutual trust as it requires honesty by all parties concerned and willingness to correct what isn't working well. Continuous evaluation in the early stages of transboundary MSP may also be important for stakeholder involvement, as this was found to be an essential element of analysis and consideration of options for the transboundary MSP pilot areas.

It is recommended that once planning documents or marine spatial plans have been drawn up, the type of periodicity for their evaluation is agreed by the responsible organisations, taking into account cost effectiveness and proportionality. At this stage, partners can also revise the periodicity for process evaluation, in particular if processes of collaboration and cooperation have become well established and/or institutionalised. Process evaluation at this stage should become needs-based, using both continuous and periodic processes and either using the entire checklist or relevant sections. Consideration of any evaluation requirements within the new MSP Directive should help inform the extent of the process.

3.3 Who should evaluate?

In principle, evaluation can be conducted by a wide range of actors, including external experts, internal staff, or a combination of these (Better Evaluation, 2013):

- **Community**: conducting evaluation by using the broader community or groups of intended beneficiaries.
- **Expert Review**: conducting evaluation by using someone with specific content knowledge or expert judgment and professional expertise.
- **External Consultant**: contracting an external consultant to conduct the evaluation.
- **Hybrid - Internal and External Evaluation**: a combination of internal staff and an external (usually expert) opinion to jointly conduct the evaluation.
- **Internal Staff**: conducting evaluation using staff from the implementing agency.
- **Learning Alliances**: bringing together different groups to conduct the evaluation.
- **Peer Review**: conducting an evaluation using individuals/organisations who are working on similar projects.

Whichever form is chosen, clear identification of responsibilities is necessary, as well as agreement on the involvement of stakeholders and the wider public (e.g. with respect to timing and the methods employed).

In the initial stages of transboundary MSP, the evaluation of the transboundary MSP process can readily be carried out by those most closely involved in it. This comprises both the responsible MSP authorities in each Member State, as well as the stakeholders involved.

To ensure a well-managed evaluation process, it is suggested that the responsibility is assigned to one authority/institution in each of the Member States concerned. This authority/institution should be responsible for managing the evaluation process within its own jurisdiction and for collating and distributing the results, ensuring that transboundary MSP evaluation is part of regular MSP evaluation. This does not mean the authority/institution is necessarily engaged with data collection itself. If the authority/institution does not have sufficient capacity in-house, external experts can be brought in. The responsible authority would liaise closely with the responsible authority in adjacent Member States to ensure that the evaluation process can utilise the scientific data and stakeholder perspectives required to evaluate the effectiveness of the transboundary MSP.

In general, the designated MSP authority in each Member State should be responsible, asking for input from those with responsibilities in the transboundary marine area and stakeholders. One possibility for coordinating the evaluation process is through a transboundary forum or body. Stakeholders would be involved through agreed communication channels including workshops.

Whichever process is chosen it is advantageous to be agreed by all participating institutions/bodies within the Member State.

In TPEA, stakeholders had the opportunity to evaluate their involvement within the transboundary MSP process. Workshops were evaluated by means of a questionnaire survey after each workshop, which checked overall satisfaction with the events, satisfaction with the level of involvement and information provided, satisfaction with the organisation of the event and the facilitators (see TPEA workshop reports on www.tpeamaritime.eu). Satisfaction with the overall TPEA experience and outcome was also surveyed. The information obtained proved helpful for improving the design and involvement in subsequent workshops. This type of regular evaluation is particularly useful in the early stages of the transboundary MSP process in order to ensure stakeholder involvement is appropriate and delivers the results envisaged. Later, evaluation is important to ensure stakeholders

are willing to stay involved, feel their contribution is relevant and heard, and do not feel "fatigued" by the process.

3.4 How are results to be presented?

Generally speaking, evaluation results should be communicated as widely as possible. There will be interest from respective Governments, MSP authorities, as well as other organisations and institutions with responsibility in the marine area in each Member State. Results should also be made available to as wide a range of stakeholders and the public as possible.

Information should be provided as required throughout the MSP process. After adoption of MSP plans, evaluation results should be communicated regularly, possibly at least every 3-6 years depending on the specific requirements. Some evaluation may require shorter time periods whilst others e.g. to identify trends may require longer time periods.

Responsibility for communicating evaluation results could lie with the designated MSP authority in each Member State unless other mechanism are more appropriate, with input from those with responsibility for the marine area including stakeholders. The designated MSP authorities are responsible for initiating the evaluation of MSP at a national level; transnational evaluation and communication of evaluation results should form part of this ongoing task.

Cooperation between the relevant MSP authorities to decide on who should be responsible for distributing information, what messages are to be communicated, when to communicate and how to communicate (e.g. languages used) is an important element to be agreed.

Results are best communicated in written format, adapted to different communication needs as necessary. Formal and operational messages, for example, may differ in style and focus from the messages communicated to stakeholders. Information should be as concise as possible, but the style should be flexible and use different types of language (technical, non-technical) as appropriate.

3.5 Who should be responsible for spatial data collection?

Baseline data collection is an essential element when developing any MSP process. It helps to provide an overview of possible conflicts and compatibilities between human activities/uses and the environment, and amongst human activities/uses themselves in any Marine Plan area. Data collection is intrinsically an evolving process as often the data that is important for MSP is supplied by authorities/organisations outside that of the MSP authority, and data collection methods and technologies are constantly improving.

As carried out in the TPEA project, it may be useful to ascertain at the outset which datasets are desirable through the establishment of a Data Model. The majority of the datasets required may have been collected for purposes other than MSP, therefore the resolution, collection methods, reference systems, data formats may not be ideal for MSP, and of course this problem is compounded across jurisdictional boundaries. As awareness of MSP grows amongst data providers, who are frequently stakeholders, opportunities to work collaboratively increase and data collection can often develop in terms of usefulness. This is especially true in transboundary MSP where

datasets can often be harmonised between jurisdictions quite easily, but this harmonisation would never have been considered pre-MSP. Evaluation may require not only an assessment of progress in datasets collected against those listed at the outset, but also an assessment into the number of times the Data Model has been amended/refined and if any efforts have been made to make data more useable specifically for MSP or to make datasets comparable for transboundary MSP could be acknowledged. Data sets which have been collected consistently over time may have more value as they may identify trends. Other data such as shipping and fishing data may hold some valuable information regarding seasonality. This too may be considered when measuring the progress and quality of the data collection.

In the light of the evaluation checklist proposed in chapter 3.1, additional consideration could be given to how data can be used to contribute to an evaluation process. Important considerations in terms of data quality are standardisation of data, coordination across borders, and compliance with the EU INSPIRE Directive. For outcome and impact evaluation, data could be collected regularly on the main uses and activities in the transboundary area, in order to analyse trends, developments, pressures and impacts. Factors to consider in the evaluation of such data may include the seasonality of activities/environmental processes, data comparability, and attribution and causality.

Member States could collaboratively determine how to use data to evaluate transboundary MSP and draw up a joint evaluation plan. Responsibility for data collection should lie with the MSP authorities in each MS with input from those with responsibilities in the marine area. Stakeholders would also be involved throughout. Stakeholders play an important role in that they may have the power to make amendments to data collection, to make available information about their sector relevant to MSP and to help make data comparable across jurisdictions.

3.6 What resources are needed?

Evidently, it is necessary to have sufficient financial resources for conducting evaluations of an acceptable quality (Kusek and Rist 2004). Evaluation of transboundary MSP is important, but it should be effective and respective of the resources involved. Cost-effectiveness and proportionality are therefore important considerations.

Transboundary MSP evaluation should be seen as an aid to the MSP process. Subject to the requirements in each Plan area, transboundary evaluation should therefore be factored into the overall MSP evaluation process. Continuous and periodic evaluation processes may be required; therefore each MS should consider cost effective and proportionate resourcing to ensure effective MSP (see also 2.4)

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