

Analysis of Regional Sea Convention needs ensuring better coherence of approaches under the Marine Strategy Framework Directive

Final report

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The views expressed herein are those of the consultants alone and do not necessarily represent the official views of the Commission.

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ANALYSIS OF REGIONAL SEA CONVENTION NEEDS ENSURING BETTER COHERENCE OF APPROACHES UNDER THE MARINE STRATEGY FRAMEWORK DIRECTIVE

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EXECUTIVE SUMMARY

The EU Marine Strategy Framework Directive (MSFD) and the four European Regional Seas Conventions (RSCs) - the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (the Barcelona Convention), the Convention on the Protection of the Black Sea Against Pollution (the Bucharest Convention), the Convention on the Protection of the Marine Environment of the Baltic Sea Area (the Helsinki Convention) and the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention) - pursue the common general aim of improving the state of the environment of the European regional seas. In addition, the MSFD and the RSCs are closely intertwined: the MSFD stipulates that 'where practical and appropriate' the RSCs should be used to ensure coordination among Member States and with third countries in the development of marine strategies; at the same time, the MSFD should contribute to the fulfilment of the 'obligations and important commitments' of the EU and/or its Member States' under the RSCs.

In substantive terms the RSCs can support the implementation of the MSFD in at least three main ways: by improving regional and cross-regional coherence of national implementation; by making the RSCs' long-standing experience and established structures for cooperation available to increase the efficiency and effectiveness of national implementation; and by offering practical opportunities for the mobilisation and coordination of relevant third countries' activities.

Yet, there are also important differences among the RSCs which have an impact on their role in relation to the implementation of the MSFD. In terms of membership, the EU is a Contracting Party (CP) to three RSCs, but not to the Bucharest Convention. Perhaps more importantly, a large majority of the CPs to the Helsinki Convention and the OSPAR Convention are EU Member States, but this does not apply to the Bucharest Convention and, in particular, to the Barcelona Convention which counts a large number of non-EU countries among its CPs. Other important differences concern the ecological characteristics and levels of diversity of the respective regional seas as well as different levels of CPs' economic development in the various regions and sub-regions.

Against the background of the common aims, institutional links, and opportunities for synergies between the MSFD and the RSCs, but also taking into account the variation in the conditions under which the different RSCs operate, this study aimed to (1) identify key support needs of the RSCs concerning their role in relation to the implementation of the MSFD; (2) outline corresponding support options and (3) develop a work-plan for implementing the support options.

Approach

The identification of the priority options for supporting the RSCs role in relation to the implementation of the MSFD proceeded in three main steps: (1) Identification of the pool of major support needs; (2) identification of priority support needs and associated support options; (3) identification of priority support options and development of the workplan.

The analysis is based on a broad range of information sources. As a first step, the project team carried out a review of relevant documents - in particular the major reports and assessments prepared by the RSCs themselves. These are analysed on the basis of key environmental issues and the main requirements of the MSFD.

The project team also carried out an on-line electronic survey to obtain additional information and gather the views of a broad range of stakeholders. We identified 301 stakeholders and asked them to complete the survey questionnaire. In response 48 stakeholders submitted the questionnaire. This corresponds to a response rate of about 16 percent. However, of the stakeholders who submitted the survey, eight did not provide information on the main subject matter of the survey. The survey results

were analysed both quantitatively and qualitatively. The project team used the results to inform the formulation of interview questionnaires tailored to the individual RSCs and to identify concrete RSC support needs.

The project local experts carried out 16 face-to-face interviews with leading RSC staff (One interview was conducted by a Brussels Milieu Ltd expert). The interviews were based on questionnaires which were tailored to the individual RSCs. Interview partners included the executive secretaries of each RSC and other key staff. The project team used the results of the interviews to specify and prioritise concrete RSC support needs and options.

We also carried out a survey of the national representatives in the Marine Strategy Coordination Group (MSCG) to gather the views of the Member States. The survey utilised a short questionnaire focussing on the main issues and questions guiding the study. Five Member States completed the questionnaire with one Member State covering two regional seas/RSCs. This corresponds to a response rate of about 18 percent. All four regional seas/RSCs were covered by at least one Member State. The results of the MSCG survey were used to specify and prioritise concrete RSC support needs and options.

Based on this broad range of information sources, the first step of the analysis consisted in the preparation of a 'pool' or 'list' of major support needs of the RSCs, which are more or less closely associated with the implementation of the MSFD. The next step, the identification of the priority support needs, mainly drew on an analysis of the assessments and proposals concerning the importance of various support needs and options derived from the interviews with the various expert stakeholders and the MSCG survey. Finally, the resulting set of priority support needs and associated potential support options was systematically evaluated with the help of a set of general and more specific criteria which were mostly derived from the draft workplan of the MSFD Common Implementation Strategy (CIS). For each RSC, the project team selected the top 6 or 7 priorities to be part of the final set of priority support options. These were then grouped into projects, WPs and tasks according to substantive focus. The workplan for the implementation of the priority support options relies on the timetable for implementation of the MSFD and a first preliminary estimate of the time requirements of each priority support option.

Results

Out of a much larger 'pool' of support needs and options identified, this study selected a total of 26 priority support options. These are almost evenly spread among the four RSCs as either six or seven options relate to each individual RSC. The priority support options concern three main areas of strong relevance for the implementation of the MSFD and were therefore bundled into corresponding projects focussing on:

- Integrated monitoring and assessment (Project 1)
- Data collection and reporting (Project 2)
- Developing regional Programmes of Measures (PoMs) (Project 3)

Sixteen - that is significantly more than half of the total number of priority support options - concern the field of integrated monitoring and assessment. Data collection and reporting is clearly the second largest area, comprising almost a third of the total number of options. Only two priority support options fall within the project focussing on the development of regional PoMs.

Given the number and more specific substantive focus of the priority support options falling under projects 1 and 2, these were further grouped into the following work-packages (WPs) usually comprising several priority support options:

For Project 1 (Integrated monitoring and assessment):

- WP1: Extending/improving integrated monitoring and assessment
- WP2: Targets and indicators
- WP3: Data gathering and assessment methods

For Project 2 (Data collection and reporting):

- WP1: Developing regional 'roof reports'
- WP2: Adaptation of data sharing platforms to new requirements
- WP3: Support to develop and apply new data collection tools

For Project 1, these WPs were broken down into particular tasks usually comprising several priority support options:

WP1: Extending/improving integrated monitoring and assessment

- Task 1.1: System review and design
- Task 1.2: Harmonised monitoring of loads and pressures

WP2: Targets and indicators

- Task 2.1: Developing targets
- Task 2.2: Developing indicators

WP3: Data gathering and assessment methods

- Task 3.1: Improving common data gathering methods
- Task 3.2: Improving assessment of cumulative impacts
- Task 3.3: Socio-economic assessment of impacts and measures

Box 1 below presents the complete set of priority support options for each of the three projects (The abbreviations in brackets - for example 'OSP1' - refer to the respective RSC - in this case: OSPAR - and the number of the support option as used in sections 4, 5 and 6 of the report):

BOX 1: Priority Support Options

Project 1: Integrated monitoring and assessment

WP1: Extending/improving integrated monitoring and assessment

Task 1.1: System review and design

- Establishment of an integrated monitoring and assessment system (BSC1 and 3)
- Development of a scheme for assessing and monitoring wider biodiversity status at the ecosystem scale beyond protecting individual species and habitats or specific sites (OSP1)
- Exchange of information with other RSCs on setting up integrated assessment and monitoring systems (e.g. HELCOM holistic assessment tool) (BSC1)
- Implementation of the integrated and targeted monitoring programme in third countries (MAP3)

Task 1.2: Improved and harmonised monitoring of loads and pressures (HEL3)

WP2: Targets and indicators

Task 2.1: Developing targets

- Adoption of additional regional targets in a range of areas, relating both to environmental conditions and to human pressures (HEL7).
- Enhanced cooperation between the BSC CPs in the target and GES setting process to develop joint targets and GES (BSC11)

Task 2.2: Developing indicators

- Development of additional regional indicators, relating to environmental state and human pressures, in particular biodiversity, marine litter and underwater noise (HEL9)
- Definition of threshold values and reference conditions as well as defining GES at indicator level (MAP9)
- Identification of indicators which should be common for HELCOM and OSPAR (OSP9)

WP3: Data gathering and assessment methods

Task 3.1: Improvement of common data gathering methods

- Development/revision of joint methods for sampling, analyses, data storage and quality assurance (HEL1)
- Streamlining methodologies and data collection and ensuring compatibility with new data storage and assessment requirements (MAP7)
- Improvement of data comparability (BSC16)

Task 3.2: Improving assessment of cumulative impacts (MAP5)

Task 3.3: Socio-economic assessment of impacts and pressures

- Development of assessment methods for socio-economic impacts of marine litter (OSP2)
- Preparation and coordination of socio-economic assessment compatible with MSFD requirements (MAP6)

Project 2: Data collection and reporting**WP1: Developing regional “roof reports”**

- Reporting at the HELCOM regional level (HEL6)
- Production of OSPAR regional roof reports (OSP15)
- Drafting of “roof reports” on monitoring programmes and programmes of measures (BSC4)

WP2 Adaptation and improvement of data sharing platforms

- Adaptation of common data sharing platforms (MEDPOL) to new monitoring requirements (MAP8)
- Improvement, modernization and making operational of web-based OSPAR data bases (OSP12)
- Improvement of data systems and infrastructure to make regional-level data more easily accessible (HEL13)
- Improvement of data coordination and sharing (BSC15)

WP3 Support to develop and apply new data collection tools

- Support to develop and apply new methods of monitoring e.g. ferry boxes, moorings and buoys and airborne surveillance (MAP4)

Project 3: Developing regional Programmes of Measures

- Development of a HELCOM joint Programme of Measures covering transboundary pressures (HEL12)
- Clarifying the involvement of OSPAR in the development of the PoMs and to identify concrete topics on which OSPAR should take the lead (OSP17)

The project team associated each of the priority support options listed in Box 1 with specific concrete support activities involving coordination, capacity building and/or research as illustrated in Box 2 for priority support need OSP1. In total there are 71 support activities associated with all priority support options:

BOX 2: Example of support activities covering one priority support option (OSP1)

Development of a scheme for assessing and monitoring wider biodiversity status at the ecosystem scale beyond protecting individual species and habitats or specific sites (OSP1)

Coordination:

- One or two expert workshops to explore the best way forward, for example in terms of the different approaches mentioned above (pressures, functional components, balance and comprehensiveness);
- A workshop to explore the availability of relevant data, for example in cooperation with the Directorate General for Maritime Affairs and Fisheries (DG MARE), who are increasing their surveillance of relevant human activities, and the European Marine Observation and Data Network – EMODNET, concerning pressures.

Research:

- An external project providing research and technical support for ICG-COBAM supporting the further development and implementation of the chosen approach, for example with respect to the development of methods of assessing cumulative pressures and impacts and of assessing ecosystems.
- A project to support testing of monitoring protocols regarding ballast water in harbors;
- A research project to assess the risk of new species introductions through ballast water and to develop a method to formulate target species lists.

Despite the differences among the RSCs mentioned above, the priority support options appear to be broadly similar among the RSCs: Two of the three projects, and more importantly most of the WPs, are relevant for all four RSC. More specifically, all four RSCs have priority support needs in the areas of integrated monitoring and assessment and data collection and reporting, and this applies also to each of the three WPs of Project 1 (Extending/improving integrated monitoring and assessment; targets and indicators; data gathering and assessment methods) and to WP2 of Project 2 (Adaptation of data sharing platforms to new requirements). WP1 of Project 2 (Developing regional ‘roof’ reports) still concerns three RSCs (the Bucharest Convention, the Helsinki Convention and the OSPAR Convention).

In addition, at the level of each individual priority support need/option, the assessment made in the framework of this study suggests that a large majority of the priority support needs/options is mirrored by similar support needs among at least two other RSCs – even if many of these needs are not accorded the same particularly high level of priority.

At the most disaggregated level of the 71 cooperation, capacity building and research support activities, there are 13 activities (almost 20 percent), which explicitly call for the involvement of more than one RSC. However, it should be noted that on future closer consideration of particular priority support options, additional common activities may be identified. Box 3 shows the 13 support activities explicitly calling for multiple RSC involvement:

BOX 3: Support activities explicitly involving more than one RSC

Project 1: Integrated monitoring and assessment

WP1: Extending/improving integrated monitoring and assessment

Task 1.1: System review and design

- Establishment of an integrated monitoring and assessment system (BSC1 and 3)

Coordination:

- Exchange of information with other RSCs on setting up integrated assessment and monitoring systems
- Exchange of information with other RSCs on setting up integrated assessment and monitoring systems (e.g. HELCOM holistic assessment tool) (BSC1)

Coordination

- Setting up an integrated platform among RSCs on monitoring

Capacity building

- Capacity building and training through an expert workshop with other RSCs on monitoring and assessment experience, best practice and lessons learned

- Implementation of the integrated and targeted monitoring programme in third countries (MAP3)

Capacity building

- Capacity building and training workshops relating to the individual needs of the third countries in 2015-2017. The workshops should include representatives from the specific

countries and other RSCs who can share best practice, experience and knowledge related to the particular issues identified.

Task 1.2: Improved and harmonised monitoring of loads and pressures (HEL3)

Cooperation

- Cooperation with OSPAR and, potentially, other RSCs. OSPAR has considerable experience with hazardous substances and, conversely, could itself benefit from HELCOM experience with nutrients. Cooperation on ballast water could build on the ongoing co-operation with OSPAR in this area.

WP2: Targets and indicators

Task 2.1: Developing targets

- Adoption of additional regional targets in a range of areas, relating both to environmental conditions and to human pressures (HEL7)

Cooperation

- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/ OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience.

Task 2.2: Developing indicators

- Development of additional regional indicators, relating to environmental state and human pressures, in particular biodiversity, marine litter and underwater noise (HEL9)

Capacity building

- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/ OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience and identify areas where common indicators could be adopted
- Definition of threshold values and reference conditions as well as defining GES at indicator level (MAP9)

Capacity building

- Training workshop including experts from other RSCs sharing their expertise and knowledge regarding environmental assessment criteria
- Identification of indicators which should be common for HELCOM and OSPAR (OSP9)

Coordination

- One or two common HELCOM/OSPAR workshops to discuss the work of the technical assistance project and build agreement between HELCOM and OSPAR on a set of common indicators

Research

- A technical assistance project to develop criteria and identify and propose a number of indicators which should be common to HELCOM and OSPAR

WP3: Data gathering and assessment methods

Task 3.1: Improvement of common data gathering methods

- Streamlining methodologies and data collection and ensuring compatibility with new data storage and assessment requirements (MAP7)

Cooperation

- A workshop involving all RSCs on the options and prospects of coordinated data management

Capacity building

- Support for a pilot cooperation project with two RSCs looking at one specific issue; and subsequently setting up an expert group to foster exchange of experience

Project 2: Data collection and reporting

WP3 Support to develop and apply new data collection tools

Support to develop and apply new methods of monitoring e.g. ferry boxes, moorings and buoys and airborne surveillance (MAP4)

Cooperation

- Workshop to exchange experience on new methods with other RSCs

Concerning improvement of coherence of the national implementation of the MSFD, most of the priority support options appear to be highly relevant. According to the analysis, more than half of the options can be associated with an expected strong positive impact on coherence and almost another third with some positive impact.

Although Project 3 on the development of regional PoMs only comprises two priority support options relating to the Helsinki Convention and the OSPAR Convention respectively, the significance of this area should not be underestimated. The development of genuinely regional PoMs can make a large contribution to the coherent, efficient and effective implementation of the MSFD, and both RSCs can play an important role as leaders in this area, accumulating experience and developing best practice.

The timing of the priority support options does not extend beyond early 2017 according to the work-plan developed in the framework of this study. This may largely be due to the fact that after the entry into force of the PoMs at the end of 2016, the preparations for the next implementation cycle of the MSFD will start. Although it seems likely that considerable work will remain to be done at this stage, ideally all tasks (except implementation of the PoMs) should have been completed by then. This is probably an important reason why it was difficult to identify priority support options beyond this date.

LIST OF ABBREVIATIONS

ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area
AC	Activity Centres
AG	Advisory Groups
AIS	Automatic Identification System for ships
AMAP	Arctic Monitoring and Assessment Programme - an Arctic Council Working Group
BC	Barcelona Convention
BEAT	HELCOM Biodiversity Assessment Tool
BONUS	Baltic Sea Research and Development Programme
BS SAP	Black Sea Strategic Action Plan
BS SRA	Black Sea Strategic Research Agenda
BS WP	Black Sea Region Work Package
BSC	Black Sea Commission
BSC PS	Black Sea Commission Permanent Secretariat
BSIMAP	Black Sea Integrated Monitoring and Assessment Programme
BSSAP	Black Sea Strategic Action Plan
CBA	Cost-benefit Analysis
CEMP	The Co-ordinated Environmental Monitoring Programme (OSPAR Commission)
CHASE	The HELCOM Chemical Status Assessment Tool
CLRTAP	Convention on Long-range Transboundary Air Pollution
CMS	Convention on Migratory Species
COP	Conference of the Parties
CP	Contracting Parties
EAC	Environmental assessment criteria
EC	European Commission
EcAp or ECAP	Ecosystem Approach
EEA	European Environmental Agency
EMBLAS	Improving Environmental Monitoring in the Black Sea
EMODNET	European Marine Observation and Data Network
ERA-NET	European Research Area-NET
EU	European Union
EU FP	European Union Framework Programmes
FP7	Seventh Framework Programme
GES	Good Environmental Status
GES/EO	Good Environmental Status/Ecological Objective
HELCOM	Helsinki Commission
HELCOM BSAP	HELCOM Baltic Sea Action Plan
HELCOM EUTRO-OPER	HELCOM project "Making HELCOM Eutrophication Assessments Operational"
HELCOM FISH/ENV	HELCOM Fisheries and Environment Forum
HELCOM GEAR	HELCOM Group for Implementation of the Ecosystem Approach
HELCOM MONAS	Monitoring and Assessment Group
HELCOM MORE	Revision of the HELCOM monitoring programmes
HELCOM OSPAR TG	HELCOM and OSPAR joint group on Ballast Water Management
BALLAST	
HOLAS	Holistic assessment of the Baltic marine environment, including a thematic assessment of hazardous substances
IA	Initial Assessment
ICES	The International Council for the Exploration of the Sea
ICG COBAM	Intersessional Correspondence Group on Biodiversity Monitoring and

	Assessment
ICG MSFD	Intersessional Correspondence Group on the Marine Strategy Framework Directive
ICPDR	International commission for the Protection of the Danube River
INSPIRE	INSPIRE Directive (EC)
IMO	International Maritime Organisation
MAP	Mediterranean Action Plan
MED	Mediterranean
MEDPOL	Programme for the Assessment and Control of Pollution in the Mediterranean Region (United Nations Environmental Programme - UNEP)
MISIS	MSFD Guiding Improvements in the Black Sea Integrated Monitoring System
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MS	Member States
MSCG	Marine Strategy Coordination Group
MSFD	Marine Strategy Framework Directive (EC)
MSFD CIS	Marine Strategy Framework Directive (EC) Common Implementation Strategy
NEA	North East Atlantic Strategy adopted by the 2010 OSPAR Ministerial Meeting
NEAES	North-East Atlantic Environment Summit
NGOs	Non-Governmental Organisations
NIS	Nature Information System
OSPAR	OSPAR Commission Protecting and conserving the North-East Atlantic and its resources
OSPAR COG	OSPAR Coordination Group
OSPAR QSR	OSPAR Quality Status Report
PA	Priority Area
PAH	Polycyclic aromatic hydrocarbons
PLUS	HELCOM online Pollution Load User System
PoM	Programmes of Measures
POPs	Persistent Organic Pollutants
RAP	Rapid Assessment Process
REACH Regulation	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
REMPEC	The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
RSCs	Regional Seas Conventions
SEA	Socio-economic analysis
SoE	State of the Environment report
SPAs	Specially Protected Areas
UNEP/MAP	United Nations Environmental Programme/Mediterranean Action Plan
UN/FAO GFCM	United Nations Food and Agriculture Organization, General Fisheries Commission for the Mediterranean
VASAB	HELCOM Vision and Strategy around the Baltic Sea - Intergovernmental multilateral co-operation of 11 countries of the Baltic Sea Region in spatial planning and development
WFD	Water Framework Directive (EC)
WG DIKE	Working Group - Data, Information, and Knowledge Exchange (MSFD WG-DIKE Technical Group)

1 INTRODUCTION

The present study requested by the European Commission (DG Environment) analyses the existing and potential future contributions which the Regional Seas Conventions (RSCs) make to support the coherence of the implementation of the Marine Strategy Framework Directive (2008/56/EC) (MSFD) with a view to develop recommendations on future areas of work where support may be needed, including on the practical means to be used. Below, we present the context of the study – namely requirement for coordination set by the MSFD and the time schedule for its implementation, which would guide prioritising and scheduling activities – and the approach and methodology used for this study.

Context of the study

Four RSCs promote environmental protection in the regional seas covered by the MSFD: the Barcelona Convention (BC), the Bucharest Convention, the Helsinki Convention, and the OSPAR Convention. The MSFD envisages an important role of the RSCs in supporting the implementation of the Directive and, in particular, in ensuring regional and cross-regional coherence of implementation.

The MSFD aims at achieving ‘good environmental status’ (GES) of European marine waters by the year 2020 through the implementation of two overarching principles: the ecosystem-based approach to the management of human activities and an integrated, coordinated, approach at regional and subregional level. Success in reaching the goal set by the MSFD will strongly depend on the degree of cooperation between the Member States, whether to address transboundary pollution effects and other pressures, including from human activities, or to exchange good practices in setting protection and prevention measures and in monitoring progress.

Long before the MSFD was developed and adopted, European countries have addressed the need to coordinate action with their European as well as non-European neighbours to protect the marine environment. The creation, almost 40 years ago, of three of the four RSCs, and 20 years ago of the fourth one, that today cover all the marine waters of the European Union (EU) is the illustration of the European countries’ willingness to work together and with third countries to improve the state of their marine waters. The Convention on the Protection of the Marine Environment of the Baltic Sea Area (and its governing body, the Helsinki Commission, (HELCOM)), the Convention for the Protection of the Marine Environment of the North-East Atlantic (and its governing body OSPAR), the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (and its governing body, the United Nations Environmental Programme/Mediterranean Action Plan (UNEP/MAP)) and finally the Convention on the Protection of the Black Sea Against Pollution (and its governing body the Black Sea Commission (BSC)) have continuously strengthened their capacities and influence and have repeatedly demonstrated the need for a coordinated intergovernmental approach to the protection of the marine environment at the regional level.

However, the ambitions of the MSFD for European marine waters means that there is a further need to ensure that the approaches taken by the four RSCs are themselves coordinated and harmonised, in order to promote a coherent implementation of the Directive across Europe and coordinate actions with third countries with waters in the same marine region or subregion, and with land-locked countries within the catchment area.

Legal basis for a coordinated regional approach

The MSFD requires Member State bordering a sea to develop a Marine Strategy to ensure that GES is achieved or maintained for its marine waters. To help Member States interpret what GES means in practice, Annex 1 of the Directive lists eleven qualitative descriptors which describe what the marine environment will be like when GES is achieved.

GES Descriptors defined in Annex I of the Directive

- Biodiversity is maintained
- Non-indigenous species do not adversely alter the ecosystem
- The population of commercial fish species is healthy
- Elements of food webs ensure long term abundance and reproduction
- Eutrophication is minimised
- The sea floor integrity ensures functioning of the ecosystem
- Permanent alteration of hydrographical conditions does not adversely affect the ecosystem
- Concentrations of contaminants give no effects
- Contaminants in seafood are below safe levels
- Marine litter does not cause harm
- Introduction of energy (including underwater noise) does not adversely affect the ecosystem

A Marine Strategy should include an initial assessment of the environmental status of the marine waters (Article 8), the determination of what GES means for the marine waters and the setting of environmental targets to reach GES (Articles 9 and 10), a monitoring programme to check and test the state of the marine environment on a continuous basis and allow for the update of the environmental targets (Article 11) and a coherent programme of measures (Article 13), setting up the necessary actions to achieve GES by 2020. While the requirement to develop a Marine Strategy lies with each Member State individually, Article 5(2) of the MSFD clearly states that the development and implementation of its different components should be inscribed in a coherent and coordinated approach *within* each marine region and subregion and *across* the different European marine regions.

There is therefore a strong emphasis on regional cooperation, collaboration and harmonisation for the implementation of the MSFD. Article 4 specifies the marine regions and subregions that must be taken into account when implementing the Directive:

- The Baltic Sea;
- The North-east Atlantic Ocean;
- The Mediterranean Sea;
- The Black Sea.

Article 6 of the MSFD further refines how cooperation between Member States at the regional level should take place, giving particular importance to “existing regional institutional cooperation structures”, such as those established under the RSCs that cover European marine waters. Article 6 therefore provides the legal impetus for the involvement of the RSCs in the implementation of the MSFD. It recognizes the prevalence of these existing structures to ensure coherence across, and coordination of, Member States of a single marine region, also with third countries sharing the same marine waters and where appropriate land-locked countries in the catchment area of the same marine region or subregion.

The Directive requires coordinating with the activities of the RSCs at the various stages of the development of marine strategies, as shown in the box below.

- Member States are required to take into account assessments carried out jointly in the context of RSCs when preparing the initial assessment and ensure that the methodologies used are consistent across the marine regions or sub-regions and transboundary impacts are considered.
- Commission should consult with RSCs when developing standards and methodological criteria on GES.
- Member States must ensure that their environmental targets are compatible with the objectives to which the EU and the Member States have committed to under relevant international agreements (including regional ones).

- When developing monitoring programmes, Member States should build upon and ensure they are compatible with relevant provisions laid down under international agreements.
- When devising their programmes of measures, Member States should integrate the relevant measures required under international agreements, in particular spatial protection measures.

But in addition to this strong emphasis on the regional level of coordination amongst Member States in the Directive, there is also a need for higher-level coordination, covering the whole EU region, amongst and between the RSCs and marine regions and subregions. For instance, the development of criteria and methodological standards¹ for the determination of GES aims to ensure consistency, to allow for comparison between marine regions and subregions and to help assess the extent to which good environmental status is being achieved across Europe as a whole.

Timing of the MSFD implementation and key requirements

The MSFD sets an ambitious timeline for its implementation. Activity or measures aiming at supporting the RSCs' needs should take into account this time schedule. Member States must notify the Commission of each component of their Marine Strategy three months after its establishment. The main deadlines set out in the MSFD are:

- 2012: Initial assessment of marine waters, determination of GES and establishment of environmental targets;
- 2014: Establishment of monitoring programmes;
- 2015: Establishment of the programmes of measures;
- 2016: Entry into operation of the programmes of measures;
- 2018: Update of the initial assessment and environmental targets;
- 2020: GES;
- 2021: Update of the programmes of measures.

In addition to these major milestones, the Directive and the Annex 1 to the Commission Staff Working Document on the "Relationship between the initial assessment of marine waters and the criteria for good environmental status" of October 2011 define the following deadlines:

- In 2013, Member States have to make publicly available, in respect of each marine region or subregion, relevant information with regard to spatial protection areas contributing to coherent and representative networks of marine protected areas (Article 13(6)).
- By 2015 at the latest, Member States have to inform the Commission of issues which have an impact on the environmental status and which cannot be tackled at national level, or which are linked to another EU policy or international agreement (Article 15).

As stated in Article 17 of the Directive and shown in the above timeline, the implementation of the MSFD through the establishment of Marine Strategies follows an *adaptive management* approach. Six years after the completion of each element (Initial Assessment (IA), GES & targets; monitoring programme; Programmes of Measures (PoM)), Member States must review and update them. A second cycle of implementation will therefore start in 2018 with the review and update of the initial assessment. Although the defined objective of the MSFD is to reach good environmental status by 2020, the integration of the adaptive approach shows that the MSFD, looking beyond 2020, aims at implementing a long-term, sustainable and integrated management of the use of marine waters.

The Member States have now completed their IA, determined GES and established environmental targets, with the exception of Malta and Poland. Croatia reported its IA. The Commission has started assessing whether "in the case of each Member State the elements notified constitute an appropriate

¹ Published in Commission Decision of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters (2010/477/EU), and expected to be refined and updated as implementation progresses.

framework to meet the requirements” of the Directive (Article 12). The Commission has six months to assess the Member States’ reports and in turn submit a report informing Member States whether in its opinion the elements notified are consistent with the Directive.

In assessing the Member States’ reports, the Commission is looking at different criteria, including i.a. coherence, that is whether the reports of the Member States in the same marine region or subregion are comparable and do not contradict each other, and whether they are comparable across the four marine regions, i.e. at the EU level. This criterion is central to the coordination with RSCs. It is expected that, because of the variety of approaches and methodologies used by the Member States for these first implementation milestones, there will be significant differences between the Member States’ reports, for instance regarding the criteria/indicators used for a feature in the same marine region (e.g. structure of fish populations). The Article 12 assessment will therefore allow the Commission to identify the gaps in the coherence of the overall process at the EU level and to propose recommendations to address these gaps. The outcome of the Article 12 assessment will constitute an important source of information for the RSCs regarding gaps and best practices at the national, regional and European level and will be an important element for policy recommendations and the work plan. Although the final results of the Article 12 assessment will not be available before the end of the project, preliminary results regarding the major gaps in terms of regional and European coherence can already be integrated in this analysis.

The development of monitoring programmes and programmes of measures are the next key steps for the implementation of the Directive, for which improving coherence and coordination will not only be important but actually required by the Directive (e.g. Annex 5 states that the monitoring programmes ‘need to ensure comparability of assessment approaches and methods within and between marine regions and/or subregions’). Proposals for options to support RSC needs should therefore reflect the need for enhanced coordination in view of these two milestones, in the relatively short and medium term.

Methodology

Based on an analysis of relevant documents - in particular the major reports and assessments prepared by the RSCs - the project takes stock of the contributions of the RSCs to the implementation of the MSFD so far and the respective resources and plans of the RSCs. Based on this analysis, the main requirements set out in the MSFD, an electronic survey targeting the main stakeholders, a questionnaire addressed to the members of the Marine Strategy Coordination Group (MSCG), discussions with the individual DG ENV desk officers responsible for the four European seas, and semi-structured interviews with 3-6 RSC officials/experts per RSC, the study identifies the most important support needs of the RSCs and associated options which can contribute to a better and more coherent implementation of the MSFD in the future. More details on the methodology used for each step of the analysis is provided below, in the relevant sections, and in the Annexes.

Literature review

Firstly, a desk-study was carried out. The project team with the support of its local experts for each regional sea prepared an overview of existing plans and activities, of gaps and corresponding support needs of the RSCs. This was done on the basis of the information found in some of the strategic documents produced by the RSCs themselves as well as on the basis of our experts’ knowledge and analysis. Examples of relevant documents are the BSC final ‘Diagnostic Report’ to guide improvements to the regular reporting process on the state of the Black Sea environment, the HELCOM Initial Holistic Assessment of Ecosystem Health of the Baltic Sea, the OSPAR Quality Status Report 2010, and the UNEP/MAP 2013 State of the Mediterranean Marine and Coastal Environment Report.

The documents were analysed using tables structured around the following key topics/themes, which

reflect the MSFD themes referred to in the Commission's proposal for the 7th EAP:

- Overarching activities, which group activities which relate to all themes
- Biodiversity (NIS, PA, Species)
- Eutrophication
- Contaminants
- Fisheries
- Marine Litter

and the following priority areas, defined in relation to the different components/obligations of the MSFD:

- (Initial) Assessment of the environmental status of the marine waters
- Setting priority objectives (GES/targets/indicators)
- Measures, action plan, etc.
- Monitoring
- Data collection & management (reporting)
- Stakeholder involvement
- Research
- Communication and cooperation specific to development and implementation of MSFD components

Building on the analysis of existing information, additional information was collected. The main purpose of the collection of additional information was to fill the remaining knowledge gaps and to 'test' and to update the preliminary findings derived from the desk study. For this purpose the following methods were used:

Electronic stakeholder survey

To gather the views of a broad range of stakeholders on the role of the RSCs with respect to the implementation of the MSFD and their respective support needs we carried out an electronic stakeholder survey.

The project team identified and contacted by email a sample of 301 relevant stakeholders, of which roughly 35% were from industry, around 25% from NGOs, and 20% from R&D and universities. The list of relevant stakeholders was compiled by Milieu in the context of a previous project.

The survey questions were drafted by Milieu and agreed by the European Commission. Questions ranged from stakeholders' assessments of the main environmental challenges in the regional seas to their views of the RSCs performance, to the identification of main gaps and support needs of the RSCs with respect to MSFD implementation (See Annex for the questionnaire). The survey contained mainly closed, but also some open ended questions. The questions were the same for each of the four RSCs.

Of the total of 301 stakeholders contacted 48 stakeholders responded, which corresponds to a response rate of around 16%. However, 8 respondents did not answer the substantive questions on the RSCs. In addition, response rates for individual questions varied strongly. All but one respondent focussed their replies on one of the four RSCs. Nevertheless the distribution of respondents across the four RSCs was relatively balanced:

HELCOM	8 respondents
BSC	13 respondents
UNEP/MAP	9 respondents

OSPAR	14 respondents
Overall, the professional background of the respondents was mixed. However, we received only very few responses from industry, in particular considering that industry was the largest group contacted. By contrast, the response rate among NGOs was relatively high. International/ intergovernmental organisations and research were also well represented:	
NGO	13
Individual expert/consultant	4
Research (public)	6
Research (private)	1
Industry	3
other	9
..of which:	
<ul style="list-style-type: none"> • International or intergovernmental organisations/initiatives • University • National fishermen's trade union 	 7 1 1

The survey data was subjected to quantitative and qualitative analysis. The responses to the closed questions were counted and presented as frequency tables for each question (see Annex B). The frequency tables provide a comprehensive overview of the views of the respondents on the role and main support needs of each of the RSCs. As the closed question necessarily were of a relatively general nature, indicating broader issues, gaps and areas where the RSC might need support with respect to MSFD implementation, the respective survey results were mainly used to further fine-tune the analysis. In particular, this concerns the formulation of the questionnaires for the interviews with RSC officials, which frequently refer to the quantitative results of the electronic survey (see below).

The answers to the open-ended questions were subject to a qualitative analysis. In particular, we analysed them in the light of the information obtained through the interviews with RSC officials and the findings of the literature review. Stakeholders' relevant concrete suggestions identifying gaps and RSC support needs were integrated into the list of main RSC support needs. Given the differentiated nature of the information gained from the open-ended questions, we did not subject this information to a systematic quantitative analysis.

RSC interviews

To obtain the RSCs own views, to 'test' and update preliminary results and to obtain more detailed information on the RSCs support needs and options with respect to the implementation of the MSFD we conducted 16 interviews with RSC officials. The face-to-face interviews were carried out by the project team's local experts (A Brussels-based Milieu expert travelled to London to conduct the OSPAR interview).

The interviews were based on questionnaires, but used a semi-structured approach, which allows the interviewer to deviate from the questions contained in the questionnaire to obtain more or better information during the interview. Although the questionnaires followed a similar approach and overall structure, the project team 'individualised' the questionnaires for each RSC based on the information obtained through the literature review, and in particular the results of the quantitative analysis of the data obtained by means of the electronic stakeholder survey (see Annex B for the individual

questionnaires). A conference telephone call to discuss relevant issues involving the DG Environment officer responsible for the respective regional sea, the Milieu local expert and the Milieu team in Brussels preceded each set of interviews.

Reflecting the preferences of the RSC officials interviewed, the interviews were conducted either individually (the default option) or as group interviews. Individual interviews lasted about an hour, group interviews about 2.5 hours. The written results of the two group interviews were in each case subsequently reviewed and amended by two of the interview partners.

For the Black Sea, we interviewed three members of the BSC Permanent Secretariat, including the Executive Secretary. The HELCOM Executive Secretary and all Professional Secretaries (three) were interviewed. Similarly, we interviewed the OPSAR Executive Secretary and three Deputy Secretaries. The UNEP/MAP interviews comprised the Executive Secretary and five other officials occupying a variety of relevant functions in the UNEP/MAP structure.

The results of the interviews provided a major input for the identification and prioritisation of the RSCs' concrete support needs and options concerning their contribution to the implementation of the MSFD.

MSCG survey

To obtain Member States' views and to gather more detailed information on the RSCs support needs and options with respect to the implementation of the MSFD a survey of the Member States represented in the MSCG was carried out. For this purpose the project team designed a short questionnaire containing open-ended questions focussing on the main issues concerning this project (see Annex A). The European Commission submitted the questionnaire to the MSCG.

Five Member States completed the questionnaire with one Member State covering two regional seas/RSCs. This corresponds to a response rate of about 18 percent. All four regional seas/RSCs were covered by at least one Member State.

As with the RSC interviews, the MSCG survey results provided a major input for the identification and prioritisation of the RSCs' MSFD related concrete support needs and options.

Structure of the report and steps of the analysis

The structure of this report is as follows: Section 2 on the 'state-of-play' provides a general overview of the involvement of each of the RSCs in the process of implementing the MSFD so far. This is followed in section 3 by short summaries of the most important existing and planned activities of the RSCs which are relevant for implementing the MSFD. A more detailed statement of these activities, structured according to the main environmental topics covered by the MSFD and by the main steps in the implementation process, can be found in the respective tables in the Annexes.

Based on the analysis of the RSCs' support needs with respect to their potential contribution to the implementation of the MSFD and, in particular, the expert interviews and surveys conducted for this study, section 4 identifies each RSCs priority support needs and associated support options. In a first step, we identified a number of main support needs by bringing together the support needs identified by the desk study, the interviews and the surveys, thus creating our basic 'pool' of support needs from which to select. Subsequently, we derived a more limited number of priority support needs for each RSC from the 'pool' of main support needs, mainly based on our analysis of the opinions of the expert and stakeholders who we interviewed/surveyed. For each of the priority support needs we provide a basic outline of one or more potential support options.

Finally, section 5 presents a more limited set of priority support options, which were selected on the basis of a set of general and more specific criteria which were largely derived from sections concerning the role of the RSCs in the draft CIS work programme. These priority support options were

then reworked into projects, workpackages and tasks and a workplan for implementation based on the timetable for the implementation of the MSFD.

2 STATE-OF PLAY: THE INVOLVEMENT OF THE RSCS SO FAR

The RSCs have been involved in decisions concerning the MSFD from an early stage on, including the consultation and policy formulation process which preceded the adoption of the MSFD.² This involvement reflected the RSCs' extensive experience with, and expertise on the protection of the regional marine environment. Perhaps more importantly, since the adoption of the MSFD, the RSCs have also been involved in the implementation of the Directive. In addition to the expertise and experience which the RSCs can bring to the implementation process, the main reason for their involvement relates to the ecosystem approach on which the MSFD is based. As each RSC governs one of the main European marine ecosystems, the RSCs can function as platforms for the regional ecosystem based coordination of national implementation of the MSFD.

As described in section 1, the MSFD contains several provisions on the involvement of the RSCs in the implementation process.

Although each RSC has been involved in the processes associated with the adoption and implementation of the MSFD, the intensity and type of involvement has been variable. This can be attributed to a number of economic, political, institutional, and ecological factors, including the following:

- *The Contracting Parties' resources and capacities:* OSPAR, and to a somewhat lesser extent HELCOM Contracting Parties (CP), are predominantly highly developed economies, whereas a significantly larger share of UNEP/MAP and Black Sea Commission (BSC) CP have less developed economies. Consequently, the total resources available for engagement in the processes of adoption and implementation of the MSFD differ among the RSCs.
- *Share of 'EU' and 'common' Contracting Parties:* while almost all OSPAR and HELCOM Contracting Parties are EU Member States and the EU itself is an OSPAR, HELCOM and UNEP/MAP CP, many UNEP/MAP and BSC Contracting Parties do not belong to the EU. In addition, the EU itself only has an observer status at the BSC. The legal and political commitment to the implementation of the MSFD differs accordingly among the RSCs. Some of the BSC Contracting Parties for example cannot openly engage in activities for the implementation of MSFD because of conflicting national priorities. Regarding incentives for co-operation between the RSCs it is also relevant that OSPAR and HELCOM have four Contracting Parties in common (not counting the EU), whereas this number is significantly smaller for other combinations of two RSCs. In general, Contracting Parties which are parties to two RSCs support cooperation and coordination among the respective RSCs to increase the coherence of domestic implementation.
- *Ecological diversity:* ecological conditions in the four regional seas differ in that the North-East Atlantic (NEA) and the Mediterranean comprise several ecosystem sub-regions. By contrast, the Baltic and Black Seas essentially consist of one ecosystem. As a consequence of having to cope with higher ecological diversity, OSPAR decision-making may be more 'bottom-up' and less hierarchical than HELCOM decision-making. In OSPAR this has complicated the adoption of common targets.³
- *RSCs' working methods:* In contrast to the other RSCs, OSPAR relies less on projects and more on the work of its national expert working groups to develop measures to advance its mission.⁴ OSPAR therefore has less experience with managing projects and integrating their results.

² RSC stakeholder interview.

³ RSC stakeholder interview.

⁴ RSC stakeholder interview.

- *RSCs' institutional characteristics*: RSCs differ in their institutional set-up. For example, unlike the other RSCs, UNEP/MAP has a decentralized structure which for much of its work relies on the various 'topic centres'. The Black Sea Commission does not publish its decisions. According to some stakeholders, the decentralized structure of UNEP/MAP, and to some extent also the BSC, and the lower transparency of the BSC tend to make it more difficult for the other RSCs to cooperate and coordinate with UNEP/MAP and the BSC.

In spite of these differences between the RSCs, with a view to their contribution to the implementation of the MSFD they also face a number of common opportunities and challenges including the followings:

- Supporting RSC objectives: Perhaps most importantly, the overall objectives of the RSCs and the MSFD are very similar. Consequently, implementation of the MSFD can be seen as presenting a major opportunity for promoting the environmental aims of the RSCs.
- Increasing RSC measures' effectiveness: The effectiveness of RSC measures which CPs use to comply with the MSFD can be expected to benefit from the fact that the MSFD is, unlike some RSC measures, legally binding and, in particular, the EU's superior enforcement powers.
- Helping CPs to reduce MSFD compliance costs: For the CPs which are EU MS, working via the RSCs to comply with the MSFD offers the opportunity of cost savings/ efficiency gains, e.g. through common reporting and sharing of work.
- 'Capacity squeeze' between EU and national level: Contracting Parties' experts working with the RSCs tend to be less available because the Contracting Parties also need these experts to work on the implementation of the MSFD at national and EU levels;
- Since the adoption of the MSFD, the Contracting Parties appear to be more careful to enter into commitments under the RSCs. One of the reasons for this could be that those who are also members of the EU are concerned that their RSC commitments are also MSFD commitments – in which case they are subject to the considerably stronger enforcement mechanisms of the EU. This type of thinking may, for example, have negatively affected the level of ambition of OSPAR targets⁵;
- Establishing comparability of measurements, targets etc. often remains difficult because of political sensitivities of Contracting Parties which are afraid that their performance may compare unfavourably with others.

Reflecting the different contexts and conditions under which the RSCs operate as well as the challenges which they face, they have to varying degrees provided platforms for the regional coordination of national approaches to the implementation of the MSFD.

HELCOM and OSPAR have created special coordination forums for the implementation of the MSFD (OSPAR Coordination Group (OSPAR COG) and the Intersessional Correspondence Group on the Marine Strategy Framework Directive (ICG MSFD) and HELCOM Group for Implementation of the Ecosystem Approach (HELCOM GEAR)). Both Conventions have supported the first phase of MSFD implementation, in particular by:

- Developing science-based proposals for indicators (OSPAR common indicators, HELCOM core indicators) in accordance with the MSFD requirements;
- Addressing thematic gaps (such as on particular aspects of biodiversity, the food web, marine litter and underwater noise);
- Preparing regional assessments and roof reports and orienting their strategic planning and work programmes towards meeting the MSFD requirements;
- Revising and further developing their monitoring programmes and data collection activities to meet the MSFD needs;
- Working on socio-economic analysis and ecosystem-based assessments;

⁵ RSC stakeholder interview.

- With regard to measures, the HELCOM Baltic Sea Action Plan includes a first basis for a regional programme of measures. HELCOM, OSPAR and UNEP/MAP are developing regional action plans on marine litter.

UNEP/MAP developed a systematic process, namely the Ecosystem Approach (EcAp), contributing to the implementation of the MSFD for its EU parties. However, it has been noted that the process is currently too slow for the implementation of the 1st MSFD management cycle. The approach interprets each descriptor under the MSFD and casts it as a Mediterranean-relevant Ecological Objective. In a few cases, descriptors have been merged, amended, and added to reflect the priorities and characteristics of the Mediterranean Sea. Current efforts are focused on achieving the remaining steps of the EcAp 7-Step Process⁶. Through this process the Barcelona Convention and Mediterranean Action Plan (MAP) have provided a platform for all Mediterranean countries.

In its 2009 Black Sea Strategic Action Plan (BS SAP) the BSC covers the EU MSFD requirements only to a certain extent, focusing mainly on the descriptors 1, 2, 3, 5 and 8 of the MSFD. However, efforts are under way to adapt the BS SAP to significantly increase synergies with the MSFD implementation process.

⁶ The Ecosystem Approach 7 Step Process, was approved at the 15th COP in January 2008 (Decision IG17/6), consists of the following steps: i) Definition of an ecological Vision for the Mediterranean; ii) Setting of common Mediterranean strategic goals; iii) Identification of important ecosystem properties and assessment of ecological status and pressures; iv) Development of a set of ecological objectives corresponding to the Vision and strategic goals; v) Derivation of operational objectives with indicators and target levels; vi) Revision of existing monitoring programmes for ongoing assessment and regular updating of targets; and, vii) Development and review of relevant action plans and programmes.

3 SUMMARY OF EXISTING AND PLANNED RSC ACTIVITIES

The desk-study aimed at reviewing the four RSCs' existing and planned activities in relation to the MSFD requirements as background information for the identifications of gaps and support needs. The information was also used to feed into the design of the questionnaires and as a basis to allow a better assessment of the results of the surveys and interviews.

Beyond the use of the results of the desk study in the remainder of this study as outlined above, the 'raw' results are presented in the Annex in the form of tables structured around the following **key topics/themes**, which reflect the MSFD themes referred to in the Commission's proposal for the 7th EAP:

- Overarching activities, which group activities which relate to all themes
- Biodiversity (Nature Information System (NIS), Marine Protected Areas (MPAs), Species)
- Eutrophication
- Contaminants
- Fisheries
- Marine Litter

and the following **priority areas**, defined in relation to the different components/obligations of the MSFD:

- (Initial) Assessment of the environmental status of the marine waters
- Setting priority objectives (GES/targets/indicators)
- Measures, action plan, etc.
- Monitoring
- Data collection & management (reporting)
- Stakeholder involvement
- Research
- Communication and cooperation specific to development and implementation of MSFD components

The tables are mainly based on available documents and constitute a high-level assessment of the current status of activities within each marine region. They provided the background against which to identify the needs for support during the next steps of the project, the survey and interviews.

The following sub-sections present short summaries of the main RSC activities.

3.1 BLACK SEA COMMISSION

Based on the 2008 State of the Environment of the Black Sea report and the 2009 report on the Implementation of the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (BS SAP), the revised 2009 BS SAP sets long-term ecosystem quality objectives (EcoQOs), which cover all themes but marine litter. However, two of the BS SAP management targets address minimisation, monitoring, assessment and reporting on marine litter and there is a draft Marine Litter Action Plan for the Black Sea. There is also a draft Strategic Action Plan for the Black Sea Biodiversity Conservation Protocol and a Draft Legally Binding Document (LBD) for Fisheries and Conservation of the Living Resources of the Black Sea.

Monitoring is based on the Black Sea Integrated Monitoring and Assessment Programme (BSIMAP) and the online database Black Sea Information System for collection of national data on all themes except for marine litter.

The 2010 BSC Final “Diagnostic Report” to Guide Improvements to the Regular Reporting Process on the Black Sea Environment provides an analysis of BSC data and monitoring and indicator availability and requirements with respect to MSFD implementation. For Bulgaria, Romania and Turkey the Diagnostic Report II updates this information.

The BSC advisory groups are working on the development of indicators.

The BSC Secretariat manages the EU funded project “Support to the Black Sea Commission for the Implementation of the Marine Strategy” which – based on the consideration of the MSFD descriptors and MSFD requirements – prepares the update of the templates for the next Black Sea State of Environment Report and the next report on the implementation of the BS SAP. It is also working on proposals for updating BSIMAP monitoring and the reporting system.

Focusing on EU MS/Candidates Bulgaria, Romania and Turkey, the project “MSFD Guiding Improvements in the Black Sea Monitoring System” (MISIS) supports monitoring in accordance with MSFD requirements. For Russia, Ukraine and Georgia the EU/UNDP funded project “Improving Environmental Monitoring in the Black Sea” (EMBLAS) mirrors the MISIS project.

The EU funded Baltic2Black project is a collaboration between the Secretariats of the Black Sea Commission and HELCOM which draws on the experience of HELCOM to enhance the protection of the Black Sea from eutrophication. Another EU funded project, which is close to finalisation, is expected to contribute to the compatibility of the Black Sea State of Environment (SoE) Report and Integrated Monitoring and Assessment Programme (BSIMAP) with MSFD concepts and structure; this will enable better consideration of, and stronger synergies with, the MSFD in the next Baltic Sea Strategic Action Plan (BS SAP).

Implementation of the MSFD is also supported by various EU research projects, such as Development of Innovative Tools for Understanding Marine Biodiversity and Assessing good Environmental Status (DEVOTES), Policy-oriented Marine Environmental Research for the Southern European Seas (PERSEUS) and Towards Coast to Coast networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential (COCONET), which often include the BSC Secretariat as a partner.

3.2 HELCOM

HELCOM adopted the Baltic Sea Action Plan (BSAP) in 2007. The plan, which focuses on eutrophication, biodiversity, hazardous substances and maritime activities, shares basic features with the MSFD in that it is based on the ecosystem approach and aims to achieve good ecological status by 2021. HELCOM will assess the progress made in implementing the BSAP – in particular the CPs’ respective National Action Programmes (NIPs) - in October 2013. The 2010 HELCOM Initial Holistic Assessment provides a comprehensive overview of the state of the Baltic Sea ecosystem.

In 2005 HELCOM adopted a monitoring strategy. The HELCOM Monitoring and Assessment Group (HELCOM MONAS) is currently reviewing and revising monitoring activities, including the revision of the HELCOM monitoring programmes in the framework of the HELCOM MORE project. HELCOM has also developed a range of assessment tools, i.e. ‘ecosystem health status’ (HOLAS), ‘eutrophication status’ (HEAT), ‘chemical status’ (CHASE) and ‘biodiversity status’ (BEAT) and the Baltic Sea Pressure Index (BSPI) which can assesses cumulative pressures.

The BSAP sets out Ecological Objectives and corresponding initial indicators and targets were developed. The HELCOM CORSET project developed a set of common core indicators which have been agreed by HELCOM. Additional ‘pre-core’ indicators will be developed further under the

HELCOM CORSET II project. A list of pressure indicators has also been prepared. The HELCOM EUTRO-OPER project aims at making eutrophication assessment operational. HELCOM engages with actors and activities in relevant key sectors - i.e. agriculture and fisheries – via the HELCOM/AGRI and HELCOM/FISH forums.

For those CPs which are EU MS, the HELCOM Group for the Implementation of the Ecosystem Approach (HELCOM GEAR) establishes HELCOM as the coordination platform for the regional implementation of the MSFD based on the HELCOM GEAR roadmap.

Numerous research and technical support projects sponsored by HELCOM CPs and the European Commission, for example HELCOM CORSETT II, HELCOM MORE and DEVOTES, support the work of HELCOM which is relevant to the MSFD.

3.3 OSPAR

The OSPAR North East Atlantic Environment Strategy covers the years 2010-2020 and aims to implement the ecosystem approach in the North East Atlantic (NEA) region. For those CPs which are also EU MS, the strategy also serves to coordinate the implementation of the MSFD in the NEA. The Strategy is complemented by six more specific strategies focussing on biodiversity, eutrophication, hazardous substances, offshore industry, radioactive substances and monitoring and assessment. OSPAR is also developing an action plan to address marine litter.

The 2010 OSPAR Quality Status Report provides a comprehensive assessment of the main environmental issues in the NEA.

Since 2010 OSPAR monitoring and assessment is guided by the Strategy for the Joint Assessment and Monitoring Programme (JAMP) which includes, in particular, the Coordinated Environmental Monitoring Programme (CEMP). With a view to the OSPAR contribution to the regional implementation of the MSFD, the JAMP will be reviewed and a revision is expected in 2014.

OSPAR adopted a number of Ecologic Quality Objectives (EcoQO) and developed proposals for 35 common indicators. In June 2013 OSPAR adopted a first set of common indicators for application under MSFD Descriptors D1, D2, D4 and D6. The adoption of additional common indicators is expected for 2014. In addition OSPAR developed advice documents on various MSFD descriptors (D1, D2, D4, D6, D5, D7, D8 and D10).

The OSPAR Intersessional Correspondence Group for the Implementation of the Marine Strategy Framework Directive coordinates OSPAR's role with respect to the regional implementation of the MSFD.

OSPAR's MSFD relevant work is supported by a number of research projects, such as DEVOTES and there is a close working relationship with ICES. OSPAR is currently preparing a research agenda.

3.4 UNEP/MAP

UNEP/MAP adopted the Ecosystem Approach (EcAp) and the accompanying roadmap for implementation in 2008. In principle the EcAp's Ecologic Objectives cover the MSFD descriptors – albeit in a form which is sometimes adapted to the circumstances of UNEP/MAP and particular regional requirements. In addition to the broad Ecological Objectives, UNEP/MAP subsequently also agreed on more specific Operational Objectives and a set of indicators. Definitions of GES and targets are currently under preparation.

In 2011/12 UNEP/MAP carried out the “Integrated initial assessment of the Mediterranean Sea (IIAMS): fulfilling Step 3 of the Ecosystem Approach Process” (IIAMS) which was followed by the “2013 State of the Mediterranean marine and coastal environment” (SoMMCER) report. These reports cover the main environmental topics of the MSFD as well as an analysis of the main pressures, knowledge and regulatory gaps.⁷

MED POL monitoring of pollution uses standardized formats and it is planned to expand monitoring beyond pollution hot spots. A regional eutrophication monitoring strategy was also approved in 2003.

The EU supported EcAp-MED project supports UNEP/MAP in the implementation of the Ecosystem Approach “in full synergy and coherence with the implementation of the European Union (EU) Marine Strategy Framework Directive (MSFD)”.

The EcAp Coordination Group (GC EcAp) coordinates UNEP/MAP activities for the implementation of the Ecosystem Approach. In particular, this concerns the activities of the UNEP/MAP Correspondence Groups for Good Environmental Status (COR GES), for monitoring programmes (COR MON) and for Economic and Social Analysis (COR ESA). COR MON has not been active yet.

UNEP/MAP adopted a number of multi-annual action plans which promote the adoption of measures to achieve the Ecological Objectives. Most of these are linked to the Barcelona Convention’s protocols. Examples include the MED POL Strategic Action Plan (SAP/MED), the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP/BIO), and the Action Plan for the Implementation of the ICZM Protocol (ICZM Action Plan). A Regional Action Plan for Marine Litter is likely to be adopted soon.

Implementation of the EcAp/MSFD in the Mediterranean is also supported by various research projects which are managed externally, for example PERSEUS and CoCoNet.

⁷ UNEP/MAP, supported by independent rather than officially designated CP experts, developed these reports. Therefore, they do not necessarily fully reflect the position of the CPs.

4 PRIORITY SUPPORT NEEDS AND POTENTIAL SUPPORT ACTIONS

As a first step, this section presents the main support needs of each RSC. This is followed by a subsection which identifies a number of particularly important priority support needs for each RSC as well as associated potential support options. This section is preceded by a short account of the approach which was used to identify the priority support needs.

Much of the information contained in this section is derived from the stakeholder and expert interviews and surveys as well as the desk study conducted for this project. To indicate the source of the information we use the following terminology:

- RSC stakeholder: information derived from interview with a member of the staff of an RSC secretariat;
- MS stakeholder: information derived from the MSCG survey;
- Local project expert: information provided by our local expert;
- Survey stakeholder: information derived from the electronic stakeholder survey conducted for this project;
- Desk study: information derived from the desk study conducted for this project.

4.1 LIST OF MAIN SUPPORT NEEDS

4.1.1 Black Sea Commission

Based on the desk study, the interviews with RSC stakeholders, the survey of MSCG members and the electronic stakeholder survey, we identified the following main needs for the Black Sea Commission:

1. Monitoring

The RSC stakeholders, the BSC project expert, the Member State stakeholders, the stakeholder survey and the desk study all identified needs in the area of monitoring. These needs relate both to cross-cutting issues and to more specific environmental topics.

Cross-cutting issues

Support for the development of an implementable integrated structure for monitoring is needed. The 2010 Diagnostic Report showed that there is a lack of an integrated monitoring programme and that this affects all topics covered by the MSFD. The Diagnostic Report I and II discuss these issues in detail and provide specific recommendations.

The RSC stakeholders added that the results of monitoring projects have to be better integrated into the work of the Black Sea Commission. This relates in particular to two major ongoing support projects (the MSFD Guiding Improvements in the Black Sea Integrated Monitoring System (MISIS) and Improving Environmental Monitoring in the Black Sea (EMBLAS) projects).

According to the RSC stakeholders, additional monitoring could focus on the organisation of ferry box lines, plankton recording, etc. The BSC project expert added that MISIS and EMBLAS most probably will not include such practices, but will focus more on R/V based discrete field work.

In addition, the MS stakeholder identified a support need for the development of a regional monitoring programme which would ideally cover descriptors, criteria and/or indicators (where applicable) in accordance with COM Decision 2010/477/EU. An alternative would be the revision of the regional integrated program for monitoring and assessment of the Black Sea (Black Sea Integrated Monitoring and Assessment Programme (BSIMAP)).

The RSC and MS stakeholders further identified a need for new and advanced techniques to be developed for the region to:

- Monitor in higher temporal and spatial resolutions, including the monitoring in open marine waters;
- Cover large marine areas (like the use of ferry boxes, remote systems and moorings); and
- Include remote sensing, satellite images etc. into the monitoring process on a long term basis.

These gaps were also identified in the Diagnostic reports (I and II-MISIS Project output) for the improvement of monitoring and reporting systems of the Black Sea and in the Black Sea Strategic Research Agenda (BS SRA), developed within the SEAS ERA Project (EC ERA NET Scheme). The need for new equipment is further supported by the results of the stakeholder survey.

Contaminants

According to the RSC stakeholders, support is needed for monitoring contaminants in sediments and biota including the marine waters. This relates particularly to the identification and monitoring of hazardous substances.

Hydrographical conditions and food web

The RSC stakeholders further stated that guidelines for monitoring of hydrographical conditions and also for food web monitoring need to be developed. The project expert suggested the adoption of available criteria for the BS as an alternative.

2. Assessment

The RSC stakeholders, the BSC project expert, the Member State stakeholder, the stakeholder survey and the desk study all identified BSC needs in the area of assessment. These mostly relate to cross-cutting issues.

Cross-cutting issues

As mentioned above, according to the RSC stakeholders, the stakeholder survey and the desk research, support is needed for setting up an integrated structure for assessment.

Member State and RSC stakeholders also identified a need to develop consistency in methods for assessment of the Black Sea environment.

According to the Member State stakeholder, a periodical overall detailed assessment of the Black Sea state of the environment would:

- Improve the understanding of the transboundary impacts;
- Achieve coherence and balance between the individual environmental elements;
- Improve efficiency; and
- Reach comparable results at the Black Sea regional level.

Hydrographical conditions and food web

The RSC stakeholders also favoured the development of guidelines for assessment of hydrographical conditions and for food web assessment.

3. Reporting

Both the RSC stakeholders and the stakeholder survey mentioned BSC cross-cutting reporting needs.

Cross-cutting issues

According to the RSC stakeholders, support is needed for setting up of an efficient integrated structure for reporting.

The reporting format and the BSIMAP should also be updated according to the MSFD requirements to enable MSFD reporting and to facilitate reporting on implementation of the Baltic Sea Strategic Action Plan (BS SAP) at the national level (annually). Current reports of the Advisory Groups (AG) are not structured according to the BS SAP.

4. Good Environmental Status

RSC stakeholders identified support needs in relation to determination of good environmental status. These needs are of a cross-cutting nature.

The MSFD was adopted shortly before the BSSAP (2009) which is one of the reasons why its requirements were not incorporated in the SAP's update. The philosophies of the BSSAP (2009) and the MSFD are different but complementary. The BSSAP is based on targeting environmental priority problems for the Black Sea. The management targets of the BSSAP do not directly state what the environmental status would be as a result of the activities undertaken under the BSSAP. However, the MSFD defines GES and develops measures specifically for achieving the GES.

Cross-cutting issues

The RSC stakeholders singled out the need to update the BSSAP taking into consideration the implications and principles of the ecosystem approach. More specifically, they consider that GES should be incorporated into the BSSAP. Further, the BSSAP management targets will have to be modified/updated and harmonized with the programmes of measures which EU CPs will have to develop under the MSFD.

The MS stakeholder underlined the need to coordinate activities relating to the definition/ achievement of GES. In particular, this concerns capacity building for project management at the regional level, the active participation of the Black Sea Commission in the CIS process, and specific research projects.

The RSC stakeholders also identified the exchange of information on the identification of GES targets and their achievement as requiring support.

5. Targets

The RSC stakeholders, the MS stakeholder and the RSC project expert identified support needs related to the definition of targets. These are partly supported by the stakeholder survey. Both cross-cutting and specific environmental issues were identified.

Cross-cutting issues

The RSC and MS stakeholders emphasised the need to develop a regional understanding of the ecosystem approach to be implemented by the future actions of the BSC. To achieve consistency in drawing up corresponding targets, close cooperation with the CPs will be necessary.

According to the project expert and the RSC stakeholders there will be a need for a strategic target setting process to update the 2009 BSSAP to include the results of the upcoming state of the environment assessment of the Black Sea. More specifically, the SoE is expected to be more oriented towards the MSFD/GES than the current BSC approach. Updating of SAP targets should therefore be carried out on the basis of the SoE after its completion.

Underwater noise

There is a need to address underwater noise which is currently not clearly addressed at either regional

or national levels. According to the RSC stakeholders, underwater noise should be included in the BSSAP and management targets established. This is also supported by the survey.

Fisheries

The conclusion of a regional agreement on fisheries constitutes the first management target of the BSSAP. More specifically, there is a need to update and adopt the “Draft Legally Binding Agreement on Fisheries”. The process of the conclusion of such an agreement must be started by at least one CP.

6. Indicators

The RSC stakeholders and the MS stakeholder identified support needs in the area of indicators, both cross-cutting needs and needs relating to specific environmental issues.

Cross-cutting issues

The MS stakeholder stated that harmonisation of the methodological approaches in determining GES by descriptors, criteria and / or indicators at the regional level should be undertaken through the Black Sea Commission Secretariat and Advisory Groups. Methods applied should be coherent and coordinated. They should also reflect transboundary impacts.

The RSC stakeholders added that environmental quality standards need to be developed for the region as a whole. This relates in particular to the identification of hazardous substances.

In addition, the RSC stakeholders state that the lack of historical data on many of the GES descriptors (except on some eutrophication and biodiversity attributes) needs to be addressed.

Hydrographical conditions

According to the RSC stakeholders, there is a need to address hydrographical conditions which are not part of the Convention and the BSSAP.

Food web

There is a need to define GES and indicators in relation to food webs.

7. Data collection

The RSC stakeholders identified support needs in the area of data collection. This is partially supported by the stakeholder survey, relating to both, cross-cutting and specific environmental issues.

Cross-cutting issues

The RSC stakeholders also mentioned the need to make the data supplied by BSC parties more comparable. This is also supported by the stakeholder survey.

Contaminants, marine litter and fisheries

The RSC stakeholders identified data collection gaps regarding contaminants, marine litter and fisheries. They suggested that data need to be collected every 3-5 years and that this might initially be supported by the EU. Fishing for litter might be integrated into this effort.

The intercalibration exercises - in particular for chemical contaminants - conducted in the last five years proved to be useful. It has provided the BSC with more comparable data. Similar exercises for nutrients, contaminants and for certain biological parameters might also be promoted for the region.

8. Information systems

The RSC stakeholders and the MS stakeholders identified RSC support needs concerning information systems. The desk study also identified a related need.

Cross-cutting issues

According to the MS stakeholder, there is a need for consultancy and technical support to improve coordination and data sharing. Available information systems have to be integrated to respond to new needs for data analysis and reporting. In addition, better coordination would improve data processing, information and knowledge exchange, general reporting tasks and data management. According to the RSC stakeholders, there is a strong need for cooperation, in particular regarding the exchange of information on the identification of GES targets and their achievements.

The desk study revealed a need to develop a well-functioning and transparent website in addition to establishing a good information basis. In addition, as stated by the RSC stakeholders, existing IT gaps in the BSC permanent Secretariat concerning data management should be addressed, in particular in terms of equipment and staff.

9. Measures

The RSC stakeholders, the project expert and the MS stakeholder identified RSC support needs concerning the definition of measures. All of them relate to cross-cutting issues.

Cross-cutting issues

The MS stakeholder identified a need to prepare a regional programme of measures to achieve and maintain good ecological status of the Black Sea. The programme should include measures to address transboundary pollution; it should also integrate different measures and requirements under directives other than the MSFD. In addition, the regional programme should be complemented by national measures by EU Member States. These could potentially function as examples/precedents for measures by other non-EU CPs.

One MS stakeholder called for technical assistance concerning the assessment of the capacities and training needs of implementing organisations - such as institutes, municipalities, sectoral ministries (transport, fisheries, energy etc.) - to coordinate the integrated maritime policy.

In addition, the RSC stakeholders considered as necessary financial support to the development of MSFD compatible programmes of measures in the Black Sea region. They expect that the development of such programmes will increase the eligibility for financial support from the EU and other sources which would, in turn, further benefit implementation of MSFD compatible measures.

The project expert and the RSC stakeholders further described the need to update the BSSAP 2009 using the strategic target setting process described above (under “targets”).

10. Socio-economic assessment

The RSC and the MS stakeholders identified a cross-cutting support need concerning socio-economic assessment.

Cross-cutting issues

The RSC stakeholders stated that the results of the EMBLAS and MISIS projects will most probably identify a lack of equipment, staff, methodologies, training, etc. These issues should be addressed once the needs are identified and analysed by EMBLAS 2nd Stage (expected to be available in 2014). EU support for some Black Sea countries should be mirrored in the remaining Black Sea countries both EU and non-EU, as well as at the regional level, i.e. the Black Sea Commission.

11. Implementation

The RSC stakeholders, the MS stakeholder and the project expert identified RSC support needs related to implementation. The desk study also identified an implementation-related need. These support needs include both cross-cutting and specific environmental issues.

Cross-cutting issues

The RSC stakeholders, the MS stakeholder and the project expert underlined that the BSC should assist CPs, both EU and non-EU, with implementation. The BSC needs to play a coordinating role and to better assist the managerial level in each country. It further needs to follow-up the implementation process in a more effective way, since currently the BSC is primarily concerned with harmonization of methodologies, approaches, and reaching regional agreements on related issues (see also Annual Work Programmes of the BSC).

The desk study shows the need to support implementation of the BSC work programme. The programme cannot always be implemented in the foreseen time frames and tracking/ monitoring implementation is challenging, not least because the implementation of the SAP and the targets is assessed every 5-6 years. It is therefore not suitable as a basis for short-term corrective actions in case of implementation failure.

In addition, the RSC stakeholders called for a financial support to implementation. This relates, as mentioned above, in particular to supporting the development of MSFD compatible programmes of measures in the Black Sea region. Such programmes would facilitate further financial support from the EU and other sources.

Biodiversity and fisheries

The desk study showed the need to adopt legally binding measures for the conservation of biodiversity and fisheries management (e.g. the BSC draft legally binding document on fisheries and living resources).

Marine litter

According to the desk study, the draft action plan on marine litter needs to be adopted. RSC stakeholders suggested that the plan has so far not been adopted because of a lack of strong commitment of the Contracting Parties but also because of the heavy load of work of the BSC Secretariat.

12. Research

The RSC stakeholders identified various support needs in the area of research. These are partially supported by the stakeholder survey. They relate to cross-cutting and specific environmental issues.

Cross-cutting issues

The RSC stakeholders identified a general need for support for the research topics identified in the BS SRA of the SEAS ERA. This was supported by the stakeholder survey. Priorities for research have been identified having in mind the SEAs ERA project – A Strategic Research Agenda for the Black Sea, and also considering the MSFD requirements. The priorities could be considered at the regional, national and EU levels.

The RSC stakeholders considered that research should be better coordinated. In particular, the SEAS-ERA BS SRA documents should be made available to the BSC Permanent Secretariat. Furthermore, the documents should be examined by research funders who need to establish practices for “common programming” and “joint calls”. This is supported by the stakeholder survey.

According to the RSC stakeholders there is a need to support research on socio-economic analysis and assessments of pressures, impacts and measures.

Marine litter

The BSC stakeholders stated that scientific challenges associated with the impact of marine litter at the ecosystem level, as well as the chemical effects of marine litter, need to be addressed through further research.

Climate change and food web

The BSC stakeholders called for support for research on the scientific challenges associated with the impact of climatic variability and change on ecosystem functions.

13. External cooperation

The BSC actively cooperates with other RSCs and international agreements and bodies. For example, Memorandums of Understanding (MoU) were signed with the United Nations Food and Agriculture Organisation, the General Fisheries Commission for the Mediterranean (UN/FAO GFCM), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area (ACCOBAMS), the International Maritime Organisation (IMO) and the International Commission for the Protection of the Danube River (ICPDR). But the RSC stakeholders and the project expert also identified RSC support needs related to external cooperation, in particular in terms of cooperation with other RSCs. The stakeholder survey supports some of these needs. The support needs include both cross-cutting and specific environmental issues.

Cross-cutting issues

The RSC stakeholders identified a need to support cooperation with other RSC's on setting up an integrated structure for monitoring, assessment and reporting. The recent cooperation experience with HELCOM was considered helpful. Concerning cooperation with UNEP/MAP, RSC stakeholders stated that UNEP/MAP's EcAp project experience and the related processes could provide important lessons also for the Black Sea region and the update of the BS SAP according to the principles of the ecosystem approach.

Biodiversity

According to the RSC stakeholders, cooperation on biodiversity and fisheries with UNEP/MAP could be supported.

Fishery and marine litter

The RSC stakeholders also noted that UNEP/MAP and the BSC could engage in joint activities regarding the "Fishing for litter" initiative. The project expert added that the Mediterranean (MED) draft marine litter action plan also covers fishing for litter and could be extended to the BS as a result of cooperation between the two RSCs.

Eutrophication and contaminants

The RSC stakeholders stated that the existing cooperation with HELCOM could be expanded. This could include intensified cooperation on eutrophication, monitoring and assessment tools and cooperation on implementing the ecosystem approach to the whole Black Sea region.

14. Internal cooperation

The RSC stakeholders and the MS stakeholder identified RSC support needs related to internal cooperation. The desk study supports some of these needs. They relate to cross-cutting issues only.

Cross-cutting issues

According to the MS stakeholder, the coordination role of the BSC needs to be addressed, especially regarding the assessment and improvement of the regional capacities. According to the desk study, the lack of personnel (scientific officers) and the diversified responsibilities of the subsidiary bodies (thematic AG and Activity Centres (AC)) to the Permanent Secretariat are the main obstacles to cooperation.

The RSC stakeholder added that support for a stronger role of the BSC Permanent Secretariat in the coordination of the implementation of the BS SAP and the MSFD is key.

4.1.2 HELCOM

Based on the desk study, the interviews with RSC stakeholders, the survey of MSCG members and the electronic stakeholder survey, we identified the following main needs for HELCOM:

1. Monitoring

Two of the RSC stakeholders and both Member State stakeholders identified HELCOM needs in the area of monitoring. Some of these are supported by the desk study. The needs relate both to cross-cutting issues and to more specific environmental topics.

Cross-cutting issues

The MS stakeholders as well as three RSC stakeholders identified a need to revise the HELCOM joint monitoring activities to better take into account the requirements and the timetable of the MSFD. The HELCOM Monitoring and Assessment Group (HELCOM MONAS) (including the Revision of the HELCOM monitoring programmes - HELCOM MORE project) is currently undertaking the revision.

Another RSC stakeholder added that the revision of the HELCOM joint monitoring activities concerns, in particular, the establishment of joint methods for sampling, analyses, data storage and quality assurance. A specific example of the development of a joint monitoring method is the mapping of habitats/biotopes. Support for compilation, evaluation and development of comparable monitoring methods would be valuable.

Furthermore, a joint documentation of monitoring programmes in a “roof report” would reduce reporting burdens on Member States and increase overall coherence. HELCOM access to information resulting from national monitoring should also be improved.

Two RSC stakeholders identified a support need to help keeping the Russian Federation, the only non-EU CP, involved in the joint monitoring.

One RSC stakeholder stated that there is a need to support comparisons of different monitoring programmes and assessment results by scientific standards.

In addition, one RSC stakeholder called for the development of new monitoring methods such as public observations.

One RSC stakeholder underlined the need for enhanced monitoring of pressures/loads.

Nutrients and hazardous substances

There is a need to support the harmonization of monitoring of nutrient and hazardous substances inputs, according to one RSC stakeholder.

2. Assessment

Two RSC stakeholders, the Member State stakeholders and the desk study identified BSC needs in the area of assessment. These mostly relate to cross-cutting issues, partly in connection with monitoring needs.

Cross-cutting issues

One MS stakeholder identified a need to support joint assessment activities, taking into account the requirements and the timetable of the MSFD. HELCOM MONAS (including HELCOM MORE) is working in this area. As with monitoring, support of joint assessment is seen as a high priority. Similarly, joint reporting of assessment of GES and of access to information resulting from national-level assessments should be improved.

One MS stakeholder identified a need to support planning for new, operational assessment systems (incl. indicators and assessment tools) to coordinate the HELCOM CPs' assessment of reaching GES. The monitoring should focus on commonly agreed parameters. National or sub-regional assessments of certain parameters should be carried out and the results should be published. This is confirmed by another RSC stakeholder.

According to one MS stakeholder, support is needed for assessment of anthropogenic pressures and their impacts. Also best practices in ground truthing assessment results (state and pressures) with other data sources and estimating their confidence would benefit from wider EU-funded projects.

3. Reporting

HELCOM cross-cutting reporting needs were identified by two RSC stakeholders and one MS stakeholder.

Cross-cutting issues

One MS and one RSC stakeholder identified a need for joint reporting especially regarding GES and the PoMs. One RSC stakeholder identified a similar need for monitoring.

According to one RSC stakeholder, support is needed for implementing the “roof report” approach into practice. More precisely, there is a need for coordination regarding the production of the next HELCOM HOLAS report, in particular with respect to the development of operational systems (see above on assessment).

Delayed and partial reporting to the common data base should be addressed, as identified by one RSC stakeholder. Another RSC stakeholder added that this is mainly due to a lack of HELCOM expertise and resources. HELCOM does not have its own national data expert network to be mobilised for a certain period of time to support the reporting – the MSFD Working Group - Data, Information, and Knowledge Exchange (WG DIKE) provides a platform but only covers overall issues.

4. Good Environmental Status

One RSC stakeholder identified a cross-cutting need relating to GES.

Cross-cutting issues

According to the RSC stakeholder, GES boundaries and associated monitoring should be developed. In particular, there is a lack of expertise regarding the development of coherent and concrete indicators with GES boundaries.

5. Targets

All stakeholders identified support needs related to the definition of targets. Some of these are supported by the stakeholder survey and/or the desk study. Cross-cutting and specific environmental issues were identified.

Cross-cutting issues

According to one MS stakeholder, the development of compatible environmental targets would enhance the efficiency of current activities dealing with environmental issues.

One RSC stakeholder contended that locally ambitious targets are needed.

Specific environmental topics

Three RSC stakeholders mentioned that there is a particular need to support work on targets in the following areas: biodiversity, nutrients (originating from agriculture, municipalities/industries and

land-based traffic), fisheries, and contaminants (consumer and industrial chemicals), maritime traffic and off-shore and costal development. One RSC stakeholder added that the sectors' priorities are contrasting and research would be needed to identify those.

Eutrophication

Two RSC stakeholders and the desk study identified a priority need to address eutrophication. Eutrophication is seen as the "root" main problem in the Baltic Sea. Support is necessary to make the core set of eutrophication indicators operational (from monitoring to assessment leading the way to the adoption of cost-efficient and targeted PoMs).

According to one RSC stakeholder, ambitious targets for the reduction of loads of nutrients should be set.

Hazardous substances and nutrients

The same RSC stakeholder underlined a similar need for ambitious targets applicable to the reduction of loads of hazardous substances.

6. Indicators

Three RSC stakeholders and one MS stakeholder identified support needs in the area of indicators. One of these was supported by the desk study. Cross-cutting and specific environmental issues were identified.

Cross-cutting issues

One RSC stakeholder identified a need to support the CPs' commitment to the joint development and adoption of a core set of indicators. National indicators should complement this core set. This is also supported by the desk study. The core indicators need to be made operational (from monitoring to assessment of GES).

One MS and one RSC stakeholder noted the need to better allocate resources for the development of new indicators in less advanced areas (e.g. biodiversity, litter, noise, commercially exploited fish stocks) rather than re-working of existing achievements.

Two RSC stakeholders identified a need to develop indicators for human activities ("human pressures"). In particular, this concerns pressures and linkages between pressures and impacts such as bottom trawling, fisheries in Marine Protected Areas (MPA), cumulative, synergistic and antagonistic pressures. One RSC stakeholder noted that HELCOM has access to a large amount of relevant data (the regional HELCOM Automatic Identification System for ships (AIS) established in 2005) to support such an effort. Another RSC stakeholder added that, regarding ecosystem components and human pressures, the indicators for benthic habitats were less developed than for other features. However, the CORESET II project was expected to further develop the benthic indicators by 2015. It was also noted that the information on the population size and distribution area of harbour porpoise is so poor that the adopted mammal indicators cannot be used to assess its status.

Fisheries

According to one RSC stakeholder, there is a need to develop indicators to assess populations of commercial fish / shell fish. Work in this regard is already ongoing, involving the International Council for the Exploration of the Sea (ICES).

Hydrographical conditions

One RSC stakeholder stated that there is a need to develop indicators regarding alteration of hydrographical conditions.

7. Data collection

All RSC stakeholders identified support needs in the area of data collection, relating to both, cross-cutting and specific environmental issues.

Cross-cutting issues

Two RSC stakeholders mentioned the need to compile regional datasets with raw data (data comparability, data mining, data modelling) which HELCOM could then make available to the public.

One RSC stakeholder described the need to address a lack of data submission from the research community to national and regional authorities.

In addition, three RSC stakeholders identified a need to address the inconsistency in data flows, which have resulted in insufficient geographical or temporal coverage of data. This applies mainly to parameters which have not traditionally been dealt with by HELCOM. The HELCOM core indicators now cover these parameters, aiming at coordinated monitoring, data reporting and assessments.

One RSC stakeholder stated that there is a need to improve HELCOM access to data on fisheries activities which are in principle available for scientific purposes. However in practice ICES uses them only for single purposes and HELCOM has had difficulties to access them for assessment purposes.

In addition, support is needed for the collection of data related to physical pressures.

Shipping

One RSC stakeholder identified a need to create better regional statistics on shipping (traffic intensity, oil transportation, accident data) and human activities such as fisheries (EU Common Fisheries Policy, Vessel Monitoring System). Support for a study on leisure boating intensity in the Baltic Sea region would be helpful.

Biodiversity and fisheries

Two RSC stakeholders underlined a need to address main knowledge gaps regarding endangered harbour porpoise populations and, more generally, biodiversity. Further data should be collected regarding occurrence and distribution of habitats/biotopes and on pharmaceutical substances and quantification of POPs inputs regarding contaminants.

Contaminants

According to one RSC stakeholder further data is needed regarding occurrence and distribution of habitats/biotopes and on pharmaceutical substances and quantification of POPs inputs.

8. Information systems

The RSC stakeholders and one MS stakeholder identified RSC support needs related to information systems.

Cross-cutting issues

One RSC and one MS stakeholders mentioned the need to enhance HELCOM data systems to allow for improved publication of regional data and information resulting from assessments and monitoring.

Furthermore, according to two RSC stakeholders, HELCOM's online Pollution Load User System (PLUS) (currently under development) should be integrated into the HELCOM Map and Data Service. PLUS will allow online uploading and downloading of datasets on national and regional pollution inputs to the Baltic Sea, both riverine and direct discharges. One RSC stakeholder added that the data should be made publicly available.

In addition, one RSC stakeholder identified the need to address the often delayed and partial reporting to the common data base.

9. Measures

Two RSC stakeholders and one MS stakeholder identified RSC support needs related to the definition of measures. Most of these concern cross-cutting issues.

Cross-cutting issues

One MS stakeholder identified a general need to better align HELCOM's Baltic Sea Action Plan (HELCOM BSAP) and MSFD activities.

In addition, according to one MS stakeholder, HELCOM projects to develop a joint Programme of Measures for transboundary pressures would benefit from further support. One RSC stakeholder added that the HELCOM BSAP and EU MSFD priorities need to be included in any funding instruments applicable to the Baltic Sea Region. While this is happening in the case of the EU Strategy for the Baltic Sea Region, it is important to ensure that these priorities are also included in the actual programming documents.

One RSC stakeholder recognised that it will become increasingly important to involve Russia, in the implementation of a Programme of Measures.

Another RSC stakeholder identified a need to support the development of a HELCOM "roof report" on programmes of measures (PoMs) which should focus on transboundary problems, the analysis of planned measures from a regional perspective and the identification of gaps. Such a "roof report" on PoMs could serve the implementation of both the HELCOM Baltic Sea Action Plan and the MSFD.

Underwater noise, fishery and marine litter

One RSC stakeholder stated that new measures are needed, as new assessments results are made available, such as regarding underwater noise, commercially exploited fish stocks and marine litter.

Biodiversity

In relation to MPAs, two RSC stakeholders identified a need to support the development of better management. Several MPAs lack management plans or their management plans are not sufficient. Effective management measures should be developed, in particular for certain human activities within MPAs, e.g. fisheries.

10. Socio-economic assessment

One RSC and one MS stakeholder identified a cross-cutting support need related to socio-economic assessment.

Cross-cutting issues

According to one MS stakeholder, there is a need to better include socio-economic analysis (SEA) within HELCOM. So far, SEA depended on external projects. One RSC stakeholder stated that a better valuation of the costs of degradation and ecosystem services is needed.

11. Research

All RSC stakeholders, one MS stakeholder, the electronic stakeholder survey and the desk research identified HELCOM support needs in the area of research. These relate to cross-cutting and specific environmental issues.

Cross-cutting issues

Three RSC stakeholders identified a general need to better coordinate the HELCOM knowledge base with respect to both research and an improved science-policy interface. However, HELCOM appears to be in a significantly better position in this respect than some of the other RSCs because of its close cooperation with the Baltic Sea Research and Development Programme (BONUS) and increasing cooperation with ICES. Still, one RSC stakeholder identified a need to update the strategic research agenda of BONUS and to improve the role of ICES in coordinating research.

One MS stakeholder identified a need to support research collaboration within and between regions. The focus should be on pilot studies and applied research projects which support the operational implementation of MSFD requirements and the uptake of their results.

One RSC stakeholder stated that support should be provided to comparisons of different monitoring programmes and assessment results by scientific standards.

According to two RSC stakeholders there is a need to support research benefiting the socio-economic analysis of the Baltic Sea region. Valuation of ecosystem services is an important topic. More research is also needed on the ecosystem approach and maritime spatial planning, as well as on pressures and implications for management measures (e.g. MPA functioning).

Two RSC stakeholders identified a need to support research on cumulative effects to improve understanding of the functioning of ecosystems and links to ecosystem services, the management of human activities and socio-economic aspects more generally.

According to one RSC stakeholder, research support should also be provided to the development of joint tools related to remote sensing.

Biodiversity

According to two RSC stakeholders more research is needed on alien species introduced through ballast water. The desk study identified knowledge gaps in particular in the areas of biodiversity and food-webs.

Contaminants

Two RSC stakeholders identified a need to support research on the inputs and sources of POPs in the Baltic Sea region.

Marine litter and underwater noise

According to two RSC stakeholders, more research is necessary with regard to the effects of noise and implications for management measures (e.g. in terms of MPA functioning). The desk study identified knowledge gaps in particular with respect to both underwater noise and marine litter.

Shipping

Concrete and special research needs in the area of shipping are identified by two RSC stakeholders and relate to new innovative solutions for sewage and waste handling in Baltic Sea ports; oil and hazardous substances transportations in the Baltic Sea and human activity/ pressure related topics resulting from shipping, as well as relating to general environmentally relevant maritime traffic issues.

12. External cooperation

Two RSC stakeholders and both MS stakeholders identified HELCOM support needs related to external cooperation, in particular with other RSCs. These relate to cross-cutting and specific environmental issues.

Cross-cutting issues

According to one MS stakeholder, there is a need to better share the workload both vertically (among national, EU and regional levels) and horizontally (among RSCs and other organisations, such as ICES). Generally, there is a need to improve coordination and sharing of work among MS, RSCs and ICES within the CIS as well as between HELCOM, ICES and BONUS to ensure communication between the policy, science and research funding bodies.

According to one RSC stakeholder, HELCOM should cooperate with institutions having leading expertise in economic and social analysis related the Baltic Sea and of the cost of degradation of the marine environment. This could help to coordinate CPs activities for the 2018 Assessment's socio-economic analysis. Cooperation between HELCOM and river basin commissions should also be improved. One RSC stakeholder also mentioned a need for cooperation among RSCs on maritime spatial planning.

One MS stakeholder supported further exchanges of experience between the Baltic and Black Seas as the two brackish and semi-enclosed European seas.

Biodiversity

One RSC stakeholder identified a need to support further coordination on alien species control and the implementation of the IMO Ballast Water Management Convention. HELCOM and OSPAR established a joint group on Ballast Water Management (HELCOM/ OSPAR TG BALLAST) and agreed on joint guidelines for BWM implementation.

Eutrophication

One RSC stakeholder stated that there is a need for cooperation with other international organisations on airborne deposition of nutrients.

Contaminants

According to one RSC stakeholder cooperation is needed on assessment and quantification of long-range transport of harmful substances covered under the Convention on Long-range Transboundary Air Pollution (CLRTAP) and other relevant treaties.

Hazardous substances

According to one MS stakeholder, HELCOM could benefit from co-operation with OSPAR particularly in the field of hazardous substances, where OSPAR has taken specific steps in target setting and data analyses with ICES. Germany, Denmark and Sweden have already now adopted many good practices from OSPAR to HELCOM in the field of hazardous substances.

13. Internal cooperation

All stakeholders and the desk study identified RSC support needs related to internal cooperation. These concern cross-cutting issues.

Cross-cutting issues

Two RSC stakeholders pointed out that HELCOM's coordinating function would generally benefit from support for HELCOM countries, in particular in the Eastern Baltic Sea, to implement the MSFD and the BSAP.

According to two RSC stakeholders, EU supported project could contribute shifting perspective with respect to the allocation of resources. The regional focus should be central, complemented by national approaches and information as needed.

Similarly one RSC stakeholder argued that the role of RSCs with respect to MSFD implementation

needed to be defined more clearly, but that progress looked promising, for example in respect of shared reporting systems (HELCOM “roof report”). One MS stakeholder stated that HELCOM should take the lead in the regional implementation of MSFD in the Baltic Sea by coordinating CPs approaches, in particular concerning monitoring and assessment, determination of GES and coordination of PoM for transboundary pressures.

According to one MS stakeholder, the EU should fund data infrastructure and research collaboration, including funding of supporting staff to manage the respective projects. The CPs should fund HELCOM’s regular work and other capacity building.

According to one MS stakeholder, there is a need to increase the acceptance of RSCs as equal partners in the implementation process and to take greater account of their specific biogeographical and geopolitical conditions and different capacities.

Both MS stakeholders and two RSC stakeholders identified a need to improve coherence of MS approaches to implementing the MSFD through mutual learning and by using to the extent possible common agreements achieved in the CIS process, such as guidance documents. At the same time, CPs should feed common agreements reached under their RSCs into the CIS process to increase efficiency by avoiding duplication of work. For example, HELCOM agreements relating to monitoring and measures could be included in MSFD guidance documents to illustrate how MSFD implementation could look like, identify potential gaps and recommend solutions.

One RSC stakeholder stated that activities of the joint CPs should be enhanced to support the exchange knowledge, information and good practices.

According to one RSC stakeholder, there is also a need to improve the CPs’ internal coordination and cooperation to streamline the implementation of HELCOM and of the MSFD, increase awareness of the HELCOM role in coordinating the regional implementation of the MSFD, and promote the incorporation of stakeholders.

The desk study showed a need to review the HELCOM working structure and working practices to enable better and timelier coordination of the national marine strategies in the Baltic Sea.

Three RSC stakeholders and one MS stakeholder called for improved communication and cooperation with economic sectors and the respective authorities. HELCOM uses cross sectoral forums and groups for this purpose. However, additional initiatives are necessary, including at national and EU levels.

According to one stakeholder, more targeted platforms for public authority-industry cooperation, such as the Platform on Port Reception Facilities under HELCOM Maritime, should be established for other economic activities.

Similarly, three RSC stakeholders and one MS stakeholder identified a need to support long- term cross-sectoral cooperation among stakeholders in the region, including academics, the media and NGOs.

4.1.3 OSPAR

Based on the desk study, the interviews with RSC stakeholders, the survey of MSCG members and the electronic stakeholder survey, we identified the following main needs for OSPAR:

1. Monitoring

Three RSC stakeholders, the OSPAR project expert and the desk study identified OSPAR needs in the area of monitoring. In this respect, on-going work (with regard to identified ‘common indicators’ and ‘candidate indicators’) to document existing monitoring and to specify still open monitoring needs will

need to be taken into account.

Support needs in the area of monitoring relate both to cross-cutting issues and to more specific environmental topics:

Cross-cutting issues

The 2010 NEAES identifies the need to develop an OSPAR monitoring framework, which will feed into an updated Joint Assessment and Monitoring Programme by 2014, focused on supporting countries' MSFD implementation.

One RSC stakeholder identified a need to support the production of an OSPAR monitoring systems roof report.

Biodiversity

The project expert and the desk study recognised the need for OSPAR to extend its focus beyond protecting individual species and habitats or specific sites to develop a scheme for assessing and monitoring wider biodiversity status at the ecosystem scale in line with the concept of GES under the MSFD.

According to one RSC expert, in the context of ballast water, there is a need to support testing of monitoring protocols in harbours.

Eutrophication

The desk study identified a need to improve OSPAR's monitoring framework through coordinated use of novel observation tools and coordination of data collection on sources, inputs and environmental status.

Contaminants

According to the 2010 Quality Status Report integrated monitoring of pollution effects should be discussed. There is a need to improve and extend OSPAR's monitoring framework (The Co-ordinated Environmental Monitoring Programme (CEMP)) and better link it with the understanding of biological effects and ecological impacts. Where appropriate, biological effects monitoring should be integrated with chemical monitoring and the research results on concentrations and effects of hazardous substances on deep-sea species and ecosystems should be used in the CEMP. In addition, considerations of climate change should be included in future monitoring and assessment of hazardous substances. Monitoring programmes on the impacts of discharges of radioactive substances in the marine environment should be continued.

Fish

The desk study identified a need for improved observer programmes for by-catch of non-commercial species.

Marine litter and underwater noise

One RSC stakeholder and the project expert identified a need to improve the monitoring of the impact of shipping, including underwater noise, and of underwater noise associated with off-shore industries. Similarly, the desk study identified a need for continuing monitoring of, key pressures and impacts of shipping on the marine environment, including underwater noise and for the development of monitoring of energy/noise. There is also a need to monitor micro-plastics and the impacts of marine litter from growing human uses of the sea.

2. Assessment

Two RSC stakeholders, the OSPAR project expert, two survey stakeholders and the desk study

identified OSPAR needs in the area of assessment. These relate both to cross-cutting issues and to more specific environmental topics.

Cross-cutting issues

One RSC stakeholder emphasised the need to support the production of an OSPAR roof report for the 2018 MSFD assessment. According to another RSC stakeholder there is a need to develop methods to add different pressures together.

Biodiversity

The OSPAR project expert and the desk study identified a need to develop an integrated monitoring and assessment programme for biodiversity. According to the desk study, there is a need to extend the development and application of ecosystem assessment methodologies.

The desk study also identified the need to assess the risk of new species introductions through ballast water.

Eutrophication

According to the desk study, there is a need to refine OSPAR's assessment methodologies (Common Procedure), including the assessment of individual indicators, and to improve modelling of nutrient transports to evaluate the contribution of atmospheric nitrogen emissions, including from ships.

Contaminants

The 2010 NEAES identified a need to coordinate and align OSPAR and the Water Framework Directive's (WFD) assessment methodologies for pollution effects. According to the desk study, there is also a need to continue monitoring and assessment and improve the evidence base for evaluating the impacts of the offshore industry on marine ecosystems.

With respect to radioactive substances, the 2010 NEAES identified a need to improve assessment tools to evaluate the impacts of discharges of radioactive substances to the marine environment and develop environmental quality criteria for such discharges. There is also a need to assess the contribution of the offshore oil and gas industry to marine radioactive pollution.

Fish

According to the 2010 Quality Status Report there is a need to further define reference points for the sustainable level of quite a few fish stocks. The development of models and reference points of commercial fish stocks needs to be continued. There is also a need to exchange information on national assessment methods for shellfish.

In relation to mariculture, the Quality Status Report identifies a need to keep under review the wider impacts, such as non-indigenous species, impacts of sea lice, escaped fish and increased demand for industrial fisheries, especially in the event of substantial increases in mariculture activities.

Marine litter and underwater noise

Assessment of marine litter appears to be viewed as a particularly pressing need which is mentioned by one RSC stakeholder, the OSPAR project expert, two survey stakeholders and the desk study.

According to one RSC stakeholder, there is a need to support the assessment of the effects of marine litter and the development of assessment methods for individual types of marine litter. The OSPAR project expert also identified a need to improve the assessment of marine litter, in particular of microplastics, although there are some relevant on-going projects. According to the desk study, there is a need to agree on methods for cumulative impact assessment in relation to marine litter.

The OSPAR project expert and the desk study identified a need to standardise methods for assessing the impacts of sound on marine species and to address the cumulative effects of different sources.

3. Reporting

OSPAR reporting needs were identified by one RSC stakeholder and one MS stakeholder.

Cross-cutting issues

The RSC stakeholder identified the need to support OSPAR with the production of roof reports on monitoring, the 2018 assessment and common indicators. According to the MS stakeholder, RSCs should be linked up with MSFD reporting requirements and information systems to allow the MS to fulfil their requirements under the MSFD on reporting and to give the RSCs access to information resulting from monitoring and assessment.

4. Good Environmental Status

The need to develop common definitions of GES was strongly emphasized by RSC, one MS and several survey stakeholders. One survey stakeholder explicitly identified definition of GES as the most important OSPAR support need, while another one referred to “developing common understanding, indicators, targets, methodologies” as most important. In addition, three stakeholders chose “setting of targets/objectives” as the most important activity addressing the second most important support need.

Cross-cutting issues

One MS stakeholder identified a need to support the review and revision of existing OSPAR Advice Documents (2012) for Biodiversity (D1, D2, D4, D6), D5, D7, D8 and D10, taking into account article 12 assessment, to support the coherent determination of GES and the choice of targets and indicators.

Biodiversity

One MS stakeholder identified a potential need to support feeding of OSPAR’s regional expertise into preparatory work under the MSFD’s Common Implementation Strategy (MSFD CIS) for the review of Commission Decision EU/2010/477).

5. Targets

Two RSC stakeholders, one MS stakeholder and three survey stakeholders identified RSC support needs related to the definition of targets. The desk study also identified certain target-related needs.

Cross-cutting issues

One RSC stakeholder, one MS stakeholder and one survey stakeholder considered that support is needed for the development of common (sub-regional) targets within OSPAR, for example for food-webs. One RSC stakeholder suggested that more support for modelling could enable the adoption of common targets in some areas. However, given the complex, multi-regional marine environment in the NEA and the “bottom-up” structure of OSPAR, the formulation of common targets is challenging and may require time. Another RSC stakeholder therefore suggested that the creation of a more “strategic process” which is one step removed from the tight timetable of MSFD implementation might be useful.

According to one RSC stakeholder, there is a need to support the adoption of source-based targets in some areas, such as cosmetics and micro-plastics.

Biodiversity

While stakeholders did not formulate specific support needs for the development and adoption of biodiversity targets, this area was clearly recognised as important by RSC and survey stakeholders, who identified biodiversity and fish as the main beneficiaries of the adoption of targets.

Eutrophication

According to the OSPAR Quality Status Report (OSPAR QSR), there is a need to set reduction targets

for nutrient inputs to individual problem areas. As one RSC stakeholder pointed out, the adoption of common targets for eutrophication might benefit from support to modelling, as this might enable adoption of a “burden sharing” approach similar to the HELCOM one.

Contaminants

According to the desk study, there is a need to continue to work towards the target for ceasing discharges, emissions and losses of hazardous substances from offshore oil and gas industry.

Fish

While no specific support needs were identified, survey stakeholders considered fish to be one of the main beneficiaries of support for the adoption of targets.

Marine litter and underwater noise

According to one RSC stakeholder there is a need to support the adoption of source-based targets in some areas, such as cosmetics and micro-plastics. One MS stakeholder identified a need to support the development of (sub-) regional targets in areas which are less developed, such as marine litter and underwater noise.

6. Indicators

The four RSC stakeholders interviewed one MS stakeholder, the OSPAR project expert, one survey stakeholder and the desk study identified support needs in the area of indicators. There is a strong emphasis on biodiversity indicators and to a somewhat lesser extent cross-cutting issues.

Cross-cutting issues

One RSC stakeholder identified a need to support production of an OSPAR roof report for common indicators. According to another RSC stakeholder, there is a need to support the management of the data for the indicators. Support for the identification of indicators which should be common for HELCOM and OSPAR could also be useful. However, there seems to be a difficulty of articulating the support needs in respect of indicators development and testing. Maybe help to support the articulation of these needs could also be useful.

The OSPAR project expert and the desk study identified a need to develop an improved and comprehensive set of indicators that describe a clean, healthy and biologically diverse sea. According to the 2010 NEAES, priorities for OSPAR-level work between 2012 and 2018 include building on the work to coordinate national approaches to GES, targets and indicators, and associated assessment criteria, by taking forward a special programme of work to develop common indicators across the GES Descriptors.

Biodiversity

According to one RSC stakeholder, there is a need to go beyond individual biodiversity indicators and look at the set of indicators developed so far to determine whether they are sufficient and identify gaps. Another RSC stakeholder viewed biodiversity indicators as a “key priority” and identified a need to support the development of biodiversity indicators linked to pressures. This stakeholder also identified a need to support testing of biodiversity indicators to generate more information about their practical performance, requirements and costs. A third RSC stakeholder thought that there is a need for more information to assess to what extent OSPAR biodiversity indicators can rely on existing monitoring capacities.

One RSC stakeholder identified a support need for the development of indicators regarding alien species in ballast water. A MS stakeholder thought that there was a support need concerning the role of complex biodiversity indicators linked to food-webs and microbial communities. This includes conceptual work to clarify how these components can be taken into account.

Marine litter and underwater noise

According to one MS stakeholder there is a need to support the development of (sub)regional indicators on areas which are less developed, such as litter and underwater noise.

7. Data collection

Three RSC stakeholders, the OSPAR project expert and the desk study identified support needs in the area of data collection.

Cross-cutting issues

Two RSC stakeholders emphasised the need to improve access to, and collection of data which are associated with relevant pressures/ pressure layers.

Contaminants

According to the desk study, there is a need for an extension of datasets further offshore beyond the densely populated and industrialised coasts and information collection on the production, uses and pathways to the marine environment, especially for substances which are not deemed suitable candidates for marine monitoring. Better information is needed about the sources, releases and pathways for several priority chemicals. This includes the need for improved tracking of the releases and environmental fate of pharmaceuticals

Fish

The desk study identifies a need to improve data quality for a large number of fish stocks, in particular for deep-sea species. According to the 2010 NEAES there is a need to continue data acquisition of commercial fish stocks.

Marine litter and underwater noise

One RSC stakeholder, the project expert, and as regards shipping also the desk study, identified a need to support collection of data on the impact of shipping, including underwater noise, and of underwater noise associated with off-shore industries.

According to the project expert, in all Member States and at OSPAR the experience with, and data on, marine litter in general is very limited, although there are some on-going projects. The desk study found that little data is available on the amounts and types of wastes handled by port-state facilities. As these operations are contracted out to private operators, there is hardly any reporting on the amounts of wastes handled.

8. Information systems

Two RSC stakeholders, one MS stakeholder and three survey stakeholders identified RSC support needs related to the definition of targets. The desk study also identified certain target-related needs.

Cross-cutting issues

According to one RSC stakeholder and two MS stakeholders, there is a need to improve, modernize and make operational web-based OSPAR data bases to ensure all data is accessible and where relevant can be displayed geographically. These should be compatible with the INSPIRE Directive (INSPIRE). According to one MS stakeholder, data systems and infrastructure are the most urgent support need.

One RSC stakeholder identified a need to support the development of data management strategies, in particular for the data for the (existing and future) indicators. According to the same stakeholder, there is also a need to support the development of data management strategies which are compatible across the RSCs.

The 2012 'Finding Common Ground' document states that in 2012-2018 OSPAR will consider

opportunities for regionally coordinated data and information reporting linked to the work of the EU Working Group on Data Information and Knowledge Exchange.

9. Measures

Two RSC stakeholders, two MS stakeholder and the desk study identified a relatively large number of needs related to measures/PoMs.

Cross-cutting issues

One MS and one RSC stakeholder identified a need to support OSPAR in facilitating agreement on policy requirements and opportunities for coordination in the development of measures whenever there is a need to coordinate on a regional scale in 2013-2015. Similarly, according to the 2012 'Finding Common Ground' document, key priorities for OSPAR-level work between 2012 and 2018, include developing agreement on common policy requirements and opportunities for coordination in the development of measures, identifying the relevant scale for action: national, sub-regional, OSPAR, EU.

According to one MS stakeholder, there is a need to provide support for the development and further improvement of dialogue structures with economic sectors such as fisheries and shipping.

One RSC stakeholder identified a potential need to support further co-operation between HELCOM (VASAB), OSPAR and ICES on maritime spatial planning.

Biodiversity

According to one RSC stakeholder, there is a support need to ensure protection of all threatened species and habitats on OSPAR's list. Similarly, the desk study identified a need to develop targeted measures to support the protection and conservation of all threatened and declining species and habitats.

The desk study identified an urgent need to establish additional MPAs, particularly beyond the coasts and in areas beyond national jurisdiction. But there is also an also urgent need to ensure that OSPAR MPAs are effectively managed.

The desk study calls for a need to assess whether mariculture management approaches should be adapted to reflect the impacts of climate change and increased mariculture activity.

Finally, according to the desk study, there is a need for OSPAR countries to ratify and implement the IMO Ballast Water Convention.

Eutrophication

According to the desk study, there is a need to adopt additional measures to reduce nutrient inputs to problem areas for eutrophication. Also additional action is considered necessary for reducing atmospheric inputs of nitrogen from agriculture and shipping (combustion).

Contaminants

One RSC stakeholder identified a need to support the revision of the dumping guidelines together with HELCOM.

According to the desk study, there are a number of needs. There is a need to

- Consider the suitability of existing measures to manage oil and gas activities in the Arctic waters where an increase in such activities is expected (The Arctic waters are not within the scope of the MSFD, but their future importance for the protection of the NEA is increasing rapidly because of the new possibilities for economic exploitation resulting from climate change);

- Continue and improve abatement of pollution from OSPAR priority chemicals at source, including PAH emissions from combustion of fossil fuels;
- Develop best available techniques for minimising discharges of radioactive substances from the nuclear sector;
- Continue efforts to phase out discharges of hazardous substances and reduce discharges of oil from offshore oil and gas industry through a risk-based approach to management of produced water;
- Promote actions under the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH Regulation) and other relevant EU legislation to reduce releases of priority substances (specific reference to full implementation of the Industrial Emissions Directive, the WFD, priority substances daughter directive and MSFD);
- Identify and implement appropriate management measures for radioactive pollution from offshore oil and gas industry.

Fisheries

According to the desk study there is a need to:

- Achieve further reductions in fishing pressures;
- Ensure that priority action is taken to address discarding practices, which remain a key issue, especially in EU waters;
- Ensure that deep-water fisheries take into account the special vulnerability of both the species exploited and their habitats;
- Ensure that the by-catch of marine mammals, sharks, seabirds and turtles is kept as low as possible, and preferably eliminated;
- Integrate fisheries management with wider maritime management, promoting consistency and synergy between fisheries policies and the policies regulating other maritime uses.

Marine litter and underwater noise

One RSC stakeholder suggested that cooperation between OSPAR and UNEP/MAP on marine litter and the formulation of action plans could be supported.

According to the desk study, there is a need to integrate fisheries management with wider maritime management, promoting consistency and synergy between fisheries policies and the policies regulating other maritime uses.

10. Socio-economic assessment and cost-benefit analysis

Two RSC stakeholders and the desk study identified a need to support OSPAR in the area of socio-economic assessment and cost-benefit analysis, in particular as a cross-cutting need and with respect to marine litter.

Cross-cutting issues

According to one RSC stakeholder OSPAR involvement in cost-benefit-analysis (CBA) of certain planned measures - in particular with respect to ensuring a regionally coherent approach to CBA could be supported: if the pressure which a given measure is to address is of a regional nature, then the CBA should be done on a regional basis by the respective RSC. Another RSC stakeholder identified to support co-operation on socio-economic analysis with HELCOM or all four RSCs.

Marine litter and underwater noise

According to one RSC stakeholder, supporting regionally coordinated socio-economic assessment and CBA of measures under the forthcoming OSPAR action plan on marine litter could be helpful. This stakeholder and the desk study also identified a need to support the development of assessment methods for socio-economic impacts of marine litter.

11. Implementation

One survey stakeholder and the desk study identified OSPAR needs regarding implementation of measures.

Cross-cutting issues

According to a survey stakeholder it might be helpful to support a more even implementation of OSPAR measures by the CPs.

Eutrophication

The desk study identified a need to support implementation of OSPAR and EU measures to reduce nutrient inputs to problem areas for eutrophication.

12. Research

Three RSC stakeholders, two Member State stakeholders, several survey stakeholders and the desk review identified OSPAR support needs relating to research. Cross-cutting issues were particularly prominent.

Cross-cutting issues

One RSC stakeholder identified a need to support further research on ecosystem assessment methodology and on pressures. Another RSC stakeholder also considered support for research on the link between human activity and ecosystem components important. According to a third RSC and one survey stakeholder, there is a general need to support further research on cumulative effects. In this respect one stakeholder thought that it could be useful to support a comparison of different methodologies for determining cumulative effects. Support for modelling to enable adoption of common OSPAR targets was also endorsed by one RSC stakeholder. Furthermore, a survey stakeholder called for the lack of knowledge of transboundary issues relating to MSFD implementation to be addressed by research.

According to an MS stakeholder, there is a need to improve (sub-)regional knowledge in certain areas which have not been extensively studied so far, including food webs and emerging issues related to the effects of climate change and ocean acidification. Support for research on the effects of climate change on the marine environment is also endorsed by a survey stakeholder.

Research coordination and collaboration was deemed a relevant support need by two MS stakeholders and a survey stakeholder. One MS stakeholder identified a need to support creating a platform for information exchange on a continuous basis, also between RSCs, e.g. on science and research needs and exchange of expertise and knowledge related to the implementation of articles 8, 9, 10, 11, 13 of the MSFD. According to another MS stakeholder research collaboration within the region and between regions could be improved. The focus should be on pilot studies and applied research projects which support the operational implementation of MSFD requirements and the uptake of their results in the management. EU financial support for joint RSC research projects with common and region-specific modules e.g. in relation to new topics would enhance efficiency. One survey stakeholder also identifies a need to improve coordination of research topics calling in addition for support for arrangements enabling sharing of the use of material resources among research institutions and Member States and an improved science-policy interface.

Biodiversity

According to one RSC stakeholder there is a need to support the development of a method to formulate target species lists. The desk study identifies a need for improved information on deep-sea species, so that the management of these species takes into account the special vulnerability of both the species exploited and their habitats. In addition, there is a need for a better understanding of interactions between fish farming and wild fish stocks. According to a survey stakeholder there is a

need for studies of distributional change and behavioural studies which can feed into a review of the list of threatened species/ habitats. Linkages between fisheries and MPAs ecological coherence and MPAs impact on the protection of biodiversity in areas beyond national jurisdiction could be supported.

Eutrophication

One RSC stakeholder identifies a support need concerning modelling of the effects of atmospheric nutrient deposition on specific areas. According to the desk study, OSPAR should improve knowledge on the inter-actions of climate change and eutrophication.

Contaminants

One survey stakeholder identifies a need to improve knowledge about the concentration and effects of most emerging contaminants and complex mixtures of contaminants. According to the 2010 NEAES, there is a need for an improved understanding of the cumulative effects of hazardous substances. The desk study also identifies a need for a better understanding of the effects of hazardous substances, particularly cumulative effects and endocrine disruption and suggests that OSPAR should examine whether there are specific issues related to ageing installations and infrastructure in the offshore oil and gas industry.

Marine litter and underwater noise

According to an MS stakeholder, there is a need to improve (sub-)regional knowledge in certain areas which have not been extensively studied so far, such as marine litter, underwater noise. This view is shared by a survey stakeholder. One RSC stakeholder identifies a need to support modelling of ambient and impulsive noise. According to the desk study, there is a need for development of an improved understanding of current measures and evidence gaps for energy/noise and to investigate the impact of underwater noise from the offshore oil and gas industry.

According to a survey stakeholder, there is a need to support research on marine debris, microplastics, ingestion of plastic and entanglement. The desk study also identifies a need to support research on micro-plastics and for investigations into evidence of biological impacts of marine litter.

13. External cooperation

Three RSC stakeholders and two MS stakeholders identified OSPAR needs related to co-operation with external actors, in particular other RSCs. The main focus of these needs is clearly on cross-cutting issues.

Cross-cutting issues

One RSC stakeholder identified a need for developing and agreeing common HELCOM/OSPAR indicators. The same stakeholder also identified a need to support discussion of data management strategies among the RSCs to develop mutually compatible strategies. According to a MS stakeholder there is a need to support closer cooperation of RSCs with river commissions. This could help WFD targets and management requirements in relation to land-based sources through better communication of results of marine assessments.

The MS stakeholder also suggested that there is a need to provide support for the development and further improvement of dialogue structures with relevant institutions governing economic sectors such as fisheries and shipping. A RSC stakeholder identified a need to support further co-operation between HELCOM Vision and Strategy around the Baltic Sea (VASAB), OSPAR and ICES on maritime spatial planning. This stakeholder also expressed support for promoting co-operation among the RSCs on socio-economic analysis.

According to one RSC stakeholder, research on cumulative effects could be done in cooperation with

ICES. An MS stakeholder expressed support for creating a platform for information exchange on a continuous basis, also between RSCs, e.g. on science and research needs and exchange of expertise and knowledge related to the implementation of MSFD requirements.

Biodiversity

One RSC stakeholder suggested that cooperation between HELCOM and OSPAR on ballast water could be supported in respect of testing of monitoring protocols in harbor, the development of the methodology for target species lists and also in the area of indicator development.

Eutrophication

According to one RSC stakeholder, cooperation with the United Nations Economic Commission for Europe CLRTAP and its European Monitoring and Evaluation Programme (EMEP) could help to model the effects of atmospheric nutrient deposition on problematic areas.

Contaminants

One RSC stakeholder identified a need to support cooperation between HELCOM and OSPAR on a revision of dumping guidelines.

Marine litter and underwater noise

One RSC stakeholder suggested that supporting cooperation with UNEP/MAP on marine litter, including the development of action plans, could be helpful.

14. Coordination within RSCs and with EU

Two RSC stakeholders, two MS stakeholder and the desk study identified OSPAR needs related to internal coordination and coordination with the EU.

Cross-cutting issues

Two RSC and two MS stakeholders identify a need to support clarification of the role of the RSCs in the MSFD implementation process and to identify areas where there is a need for (sub-) regional coordination and where an RSC should take the lead. According to one RSC stakeholder, while this is relevant for implementation of the MSFD in general, an initial focus could be on clarifying the involvement of the RSCs in the development of the PoMs and to identify concrete topics on which they should take the lead. Similarly, one RSC stakeholder argues that the RSCs could play a role in achieving a better division of work and sharing of resources, such as research vessels, among the Member States. The EU could support RSC coordination in relevant areas.

One stakeholder suggests that it could be helpful to support the development of a more strategic process which accompanies the implementation of the MSFD but is less constrained by the need to meet MSFD implementation deadlines.

Biodiversity

According to the 2012 'Finding common ground' document, there is a need to exchange information on national assessment methods for shellfish.

15. Other

One RSC stakeholder, one MS stakeholder and the desk study identified certain additional OSPAR needs.

Cross-cutting issues

According to one RSC and one MS stakeholder there is a need to support capacity building in OSPAR to enable more project- or contract-based work, including project-managers, with a view to ease the

work load of CPs and the Secretariat.

The desk study suggest that it will be important that joint work planning between the EU and regional sea conventions is carried out on a regular basis to ensure that work being carried out at each level is mutually supportive.

4.1.4 UNEP/MAP

Based on the desk study, the interviews with RSC stakeholders, the survey of MSCG members and the electronic stakeholder survey, we identified the following main needs for UNEP/MAP:

1. Monitoring

The RSC stakeholders, Member State stakeholders, the stakeholder survey and the desk study identified RSC needs in the area of monitoring. These relate to both cross-cutting issues and more specific environmental topics.

Cross-cutting issues

The RSC stakeholders identified a need for support for the development and implementation of integrated and/or targeted monitoring programmes. This is supported by both MS stakeholders, by the stakeholder survey and the desk study. In addition, one MS stakeholder proposed that UNEP/MAP should have a focal role in the development process, especially regarding regional and sub-regional coordination, whilst making sure that the exchange of specific information from Mediterranean Member States is facilitated and ensure that efforts are focused towards the main goal, whilst ensuring compatibility and consideration of national specificities.

The desk study identified a need to develop a rationalized monitoring programme, based on a selection of ecological and operational objectives to help understand the Driver-Pressure-State-Impact-Response sequence across a wide span of impacts from human activity. The RSC stakeholder added that an analysis of existing monitoring and data collection activities relevant to the EcAp is currently underway. The aim of this analysis is to propose key principles and a roadmap for the development of an Integrated Monitoring and Assessment Programme by 2015. The results of this analysis were presented at the EcAp Coordination Group Meeting in Athens, 9 September 2013. Additional funding is needed in order to develop and implement integrated and/or targeted monitoring programmes.

RSC stakeholders identified a need to support improvements with respect to good laboratory practices, quality assurance, quality control and voluntary accreditation procedures in national laboratories. This would enable coordinated and coherent monitoring of new substantive elements of the integrated monitoring programme. The MAP Secretariat should address this in 2016-2017. Relevant activities are ongoing for descriptors 5 and 9, but there is no funding currently available for the remaining indicators.

In addition, the RSC stakeholders identified a support need regarding the preparation of essential common technical guidelines on methods and standards for sampling, analysis and quality control/assurance to be used for the assessment of new elements of the UNEP/MAP monitoring system. This will be important for the year 2014-2015. Funding is available under the current EU EcAp project, even though the number of expert level meetings for the preparation is very limited and the development of common guidelines for monitoring and assessment within a timeframe of two years will be a challenge. It should also be noted that there are only a few areas where a monitoring programme exists. In most cases the work will have to start (almost) from the beginning. Any common guidelines will therefore need to be further developed, in particular in the light of the experience of the first interim implementation of the Monitoring and Assessment Programme (2016-2019).

According to the RSC stakeholders, there is a need to support the development of regional

environmental assessment criteria (EAC) taking into consideration sub-regional specificities. These criteria should include background concentrations, reference conditions, and threshold values for the individual substantive monitoring elements. This will be important for the year 2014-2015.

The RSC and MS stakeholders identified a need to set up a systematic monitoring regime that will allow accurate assessments of the state of the Mediterranean coastal and marine environment. This is also supported by the desk research. Monitoring should include the assessment of country capacities and implementation needs of the EcAp roadmap, especially in relation to monitoring and assessment/data collection. UNEP/MAP is currently undertaking such an assessment.

According to the RSC stakeholders investigative monitoring is needed for some of the ecological objectives. The ecological objectives greatly differ especially in relation to data availability/monitoring needs, data collection and data generation. In some cases, monitoring can start or continue at a more operational level.

In addition, the RSC stakeholders suggested that hot spot monitoring should be further assessed. Hot spot monitoring is a monitoring type which may be a cost-efficient and practical way ahead. However, the RSC stakeholders also noted that this may not be a solution for monitoring Mediterranean waters and coasts regarding all 11 descriptors.

RSC stakeholders suggested that there is a need to assess the feasibility of employing modern tools in addition to traditional ship-based monitoring. Modern tools could be ferry boxes, moorings and buoys and airborne surveillance etc. This will be important for the year 2014-2015. The aim is to establish an appropriate cost-effective mixture, including bilateral or multilateral cooperation, in the region to achieve better resolution in time and space and to reduce costs. No funding is currently available for this step. This is unfortunate because it would be highly beneficial for a cost-effective monitoring and assessment programme design.

Biodiversity

According to RSC stakeholders, regional knowledge regarding biodiversity in the Mediterranean is limited. This area has been addressed by UNEP/MAP under its Biodiversity Protocol which, however, only concerns the establishment of Specially Protected Areas and the conservation of specific endangered species. The desk study points out that even with respect to the areas covered by the Protocol, there is limited knowledge and monitoring of both the current state as well as of impacts and pressures.

Marine litter, sea-floor integrity, trophic levels and food webs

According to the desk study, information will need to be gathered through targeted monitoring programs to provide a scientific basis for decision-making, in particular in the areas of marine litter, sea-floor integrity, trophic levels and food webs.

2. Assessment

The RSC stakeholders, Member State stakeholders and the desk study identified support needs in the area of assessment. These relate to cross-cutting issues.

Cross-cutting issues

According to the RSC stakeholders and one MS stakeholder there is a need to support the development of a systematic assessment regime which will allow accurate assessments of the state of the Mediterranean coastal and marine environment. This is also supported by the desk research. There is also a need to assess the national capacities and implementation needs with respect to implementing the EcAp roadmap, especially in relation to data collection, monitoring and assessment. UNEP/MAP is currently undertaking a first assessment. Further assessments, in particular of non-EU CPs' capacities and needs, will be necessary in 2015-2016. While funding for the initial assessments is

available under the current EcAp project budget, there are no funds for in-depth assessments of needs, such as training and provision of equipment.

One MS stakeholder identified a need to involve UNEP/MAP in the regional integrated assessment under the MSFD. UNEP/MAP should be entrusted with specific components of the regional assessments and be given due guidance and technical assistance to fulfil the respective tasks in a timely manner.

According to one MS stakeholder there is a need to support the assessment of the cumulative impacts of the pressures affecting different locations within the Mediterranean. This is supported by the desk study, which states that it is difficult to determine cumulative impacts beyond modelling efforts based on expert judgement. This is due to the fact that previous non-integrated monitoring focuses on single species, sites or sectors.

3. Good Environmental Status

The RSC and MS stakeholders identified support needs in relation to GES. These needs concern cross-cutting issues.

According to the RSC stakeholders and both MS stakeholders there is a need to support the selection of GES indicators. One MS stakeholder added that the RSCs should be involved in the determination of GES. According to the RSC stakeholders, the different degrees to which GES has been determined imply that work should reflect this variation. In some cases the focus has to be on quantification of targets and specification of more operational monitoring requirements, while in other cases the emphasis should initially be on data gathering and investigative monitoring. The RSC stakeholders identified a need to address the underlying differences in GES data availability and monitoring requirements.

According to the RSC stakeholders, some of the ecological objectives differ considerably from each other, in particular in relation to data availability/monitoring needs, data collection and data generation.

4. Targets

The RSC stakeholders and both MS stakeholders identified support needs in the area of target definition. These needs concern cross-cutting issues.

Cross-cutting issues

Both MS stakeholders stated that UNEP/MAP should be involved in the target setting process. Their involvement is needed in order to ensure compatibility and that the characteristics of the individual contracting parties are taken into consideration.

As with GES, the RSC stakeholders identified a need to address data availability and monitoring requirements of targets. The different levels of maturity of targets imply that work should continue also on different levels. In some cases the focus has to be on quantification of targets and specification of monitoring requirements in a more operational mode. In other cases, the focus has to be on data gathering and investigative monitoring. In addition, the RSC stakeholder stressed that no priority areas between the agreed ecological objectives for the Mediterranean should be set. The core of the Ecosystem Approach (and the MSFD) is to overcome sectoral approaches and see environmental (and for that matter also social, economic) issues in an interlinking manner.

5. Indicators

The RSC stakeholders and both MS stakeholders pointed out support needs related to the development

of indicators.

Cross-cutting issues

The RSC stakeholder and both MS stakeholders identified the need to support the selection of GES indicators. One MS stakeholder stated that the RSCs should be involved in the development process. This is needed in order to ensure compatibility and that the characteristics of the individual contracting parties are taken into consideration.

According to the RSC stakeholders, the different levels of maturity of descriptors imply that work should continue also on different levels. In some cases the focus has to be on quantification of targets and specification of monitoring requirements in a more operational mode. In other cases, the focus should be placed on data gathering and investigative monitoring.

The RSC stakeholders identified a need to further focus on integration, analysis of interlinkages, cumulative pressures and scientific links between the different indicators and targets of the different GES/EO. The purpose of this is to ensure both cost-effectiveness, as well as scientific accountability. Currently, work is on-going in the so-called “clusters on the various descriptors” concerning cost-savings. Possible outcome of the on-going work may be the identification of some “node” or “priority” targets.

In addition, the RSC stakeholders identified a need to address the data availability/ monitoring requirements of the indicators. Some of the ecological objectives differ strongly in relation to data availability/ monitoring needs, data collection and data generation. The different levels of maturity imply that work should also continue on different levels. In some cases the focus has to be on quantification of targets and specification of monitoring requirements in a more operational mode. In other cases, the focus has to be on data gathering and investigative monitoring.

Noise and biodiversity

According to the RSC stakeholders, knowledge gaps exist regarding noise and biodiversity. The noise and biodiversity indicators have not been previously addressed or have been addressed in a different context.

Pollution

According to the RSC stakeholders, further development and strengthening of a number of pollution parameters is needed.

6. Data collection

The RSC stakeholders and one MS stakeholder identified support needs in the area of data collection. These are related to cross-cutting issues.

Cross-cutting issues

The RSC stakeholders and one MS stakeholder stated that the RSCs should streamline methodologies and data collection and increase comparability of data through the Mediterranean region. In addition, there is a need to support UNEP MAP in assessing an updating its own systems to ensure compatibility with new data storage and assessment requirements.

According to the RSC stakeholders there is a need to collect information on the availability of data for the monitoring requirements according to GES/ target/ indicators.

7. Information systems

The RSC stakeholders, Member State stakeholders, the stakeholder survey and the desk study, all identified RSC needs concerning the definition of information systems relating to cross-cutting issues.

Cross-cutting issues

All stakeholders identified a need for support to improve environmental data flows and the MEDPOL (Programme for the Assessment and Control of Pollution in the Mediterranean Region) data sharing platform. Even the contracting parties with a strong national monitoring and data collection framework do not systematically transfer the data collected to the regional databases. In addition, new parameters and targets will need to be added to the current MEDPOL database. One MS stakeholder added that the RSCs should have a focal role whilst making sure that the exchange of specific information between the Mediterranean Member States is facilitated. RSCs should ensure that efforts are focused on the main goal, whilst also providing for compatibility and consideration of special national circumstances.

8. Measures

The RSC stakeholders and one MS stakeholder identified RSC support needs related to the definition of measures. Most of these relate to cross-cutting issues.

Cross-cutting issues

The RSC stakeholders stated that there is a need to support the assessment of existing measures under the BC and Protocols with a view to preparing the ground for potential adjustment of measures to support countries in achieving EcAp GES and national targets.

According to one MS stakeholder, support should be provided to EU CP which have more demanding needs concerning the development of a regional approach than other CPs.

Biodiversity

One MS stakeholder stated that there is a need to improve expert support for identification and management of marine protected areas.

9. Socio- economic assessment

The RSC stakeholder, Member State stakeholders, the stakeholder survey and the desk study identified RSC needs in the area of socio-economic assessment. These needs relate to cross-cutting issues.

Cross-cutting issues

The desk study identified a need to support coordination of the economic and social analysis of the use of the Mediterranean Sea and of the cost of degradation of the marine environment. However, the socio-economic analysis needed for the implementation of the MSFD, i.e. for the initial assessment and the programmes of measures, has not been included in UNEP/MAP work so far. The RSC stakeholders further identified a need to develop examples of the socio-economic benefits of GES achievement with specific high-level outreach to non-EU CPs. High-level political awareness raising is of great importance for mobilizing support in non-EU CPs to catch up with the EU CPs.

10. Implementation

Needs regarding implementation are mainly recognised by the RSC stakeholder. Some of those are also supported by the MS stakeholder. They all relate to cross-cutting issues.

Cross-cutting issues

The RSC stakeholders pointed out that - assuming that COP 19 (Conference of the Parties) will adopt the integrated monitoring (and assessment) programme - there will be a need to support implementation, in particular by non-EU CPs in the second half of 2016 (The programme will initially be run on a two year initial basis to assess its effectiveness and gaps and identify needs for adaptation). In particular this pertains to supporting the design of national monitoring programmes and the establishment/ upgrading of national laboratories with key equipment as well as human capacity

building as specified in country assessments. To mobilise national support and resources, there is a need to support action which strengthens political support, for example high-level round-tables.⁸

There is a need to create ownership of the Ecosystem Approach among all CPs and implement it in a flexible manner which takes into account different levels of scientific certainty relating to the different indicators etc., variability in country capacities and ambitions, as well as the “learning by doing” element of the MSFD. Flexibility is critical to avoid the emergence of a parallel MSFD process in EU CPs. Such a parallel process would duplicate efforts instead of streamlining the MSFD work into the implementation framework of the ECAP, the BC and its Protocols. There is a need to support relevant discussions with CPs after the first gap analysis on existing measures assisting EcAp implementation. Important issues include the need to be flexible with respect to enabling both, CPs which are initially less ambitious to eventually catch-up with the more ambitious CPs, and CPs who want to go further than the initial implementation phase of EcAp Integrated Monitoring and Assessment Programme to do so. There is therefore also a need for the UNEP/MAP Secretariat to establish a capacity building programme based on specific country needs for training with respect to implementing the integrated monitoring programme. This should become relevant in 2015-2017.

The RSC stakeholders further identified a need to support a more result oriented process by utilising Rapid Assessment Processes (RAP). Support to strengthen the role of the existing Compliance Committee of the Barcelona Convention would also be useful.

11. Research

Research needs were identified by the RSC and MS stakeholders and were partially supported by the stakeholder survey. They relate to cross-cutting and specific environmental issues.

Cross-cutting issues

The RSC and the MS stakeholders identified a general need to support effective Research and Development, in particular with respect to non-EU CPs. Support needs concern both scientific knowledge gaps and more technical issues relating to the implementation of measures and monitoring.

According to the RSC stakeholders, there is a need to improve the coordination of on-going and future EU funded research projects (FP7 - EU Research Framework Programme, Horizon 2020 etc.). Project results must be integrated more effectively into the work of the RSCs. In some cases, UNEP/MAP might even take on the role of project coordinator. Relevant activities could be undertaken *inter alia* in the framework of the next phase of the EU funded EcAp project.

RSC stakeholders identified a need to support the identification of concrete research topics for all descriptors (Such a list was recently agreed for marine litter). Both MS stakeholders stated that common regional work plans should be prepared to fill gaps in knowledge.

Biodiversity

According to the RSC stakeholder, there is a need for research support regarding the issue of biodiversity. Due to austerity, financial and political constraints, support is needed for the establishment of the SPAs.

Waterbudget/ balance

According to the RSC stakeholders there is a need to support research on the water budget/ balance of

⁸ Even if this need should turn out to be mainly relevant for non-EU CPs, it seems nonetheless also relevant for the implementation of the MSFD and, in particular, for ensuring a coordinating role of UNEP/MAP in this process. Given the diversity among UNEP/MAP CPs and the large number of non-EU CPs, it seems likely that UNEP/MAP can only assume this role if the approaches pursued by EU CPs and non-EU CPs remain reasonably similar and compatible. Addressing this support need could contribute to this.

the Mediterranean. Whilst a lot of work and tools are available, the overall water budget of the Mediterranean has not been assessed yet. This research would in essence represent a baseline for the work in all focal areas of the Mediterranean. Reduced rainfall, dam building, evaporation and changes in circulation are all relevant factors affecting various MSFD descriptors.

Atmospheric pollution

The RSC stakeholders identified a need to support research on atmospheric pollution. The Barcelona Convention has not addressed this issue. However, research results indicate that the atmosphere is an important source of marine pollution.

Oil and gas exploration

According to the RSC stakeholders there is a need to support research on the impacts of oil and gas exploration, in particular with respect to adequate sea-bed mapping. On the basis of this MAP and REMPEC could provide guidance to CPs where relevant activities take place. Research should be carried out from 2015 onwards.

Noise and biodiversity

According to the RSC stakeholders, a knowledge gap exists regarding noise and biodiversity. The noise and biodiversity indicators have not been previously addressed or have been addressed in a different context.

12. External cooperation

The RSC and MS stakeholders identified support needs in the area of external co-operation. These are partially supported by the stakeholder survey. They relate to cross-cutting issues.

Cross-cutting issues

According to the RSC stakeholders and the electronic stakeholder survey, there is a need for enhanced cooperation with other international conventions and agreements. Cooperation should focus, in particular, on data sharing and developing common measures. It would be in addition to co-operation with, among others, the UN/FAO General Fisheries Commission for the Mediterranean (GFCM) and CMS ACCOBAMS.

Co-operation among RSCs is ongoing. There may be a need for stronger cooperation in the future, especially regarding sharing of data and the development of common measures, in particular regarding practical arrangements (for example, staff exchange, more regular meetings, topic related specific cooperation agreements). However, due to the fact that there are other more urgent matters for EcAp implementation for all RSCs, this is ranked as a low priority, at least regarding EU funding.

One MS and the RSC stakeholders identified a need for integration of a larger stakeholder to increase acceptance and ownership of the EcAp process. The EcAp provides room for the involvement of other bodies operating within the Mediterranean, such as ACCOBAMS, MEDPOL and the various Regional Activity Centres of the MAP and NGOs.

13. Internal cooperation

All stakeholders identified RSC support needs related to internal cooperation. These are partly supported by the desk study. They relate to cross-cutting issues.

Cross-cutting issues

All stakeholders note that regional coordination is required for the long-term success of the EcAp and MSFD implementation in the Mediterranean. However, Member States should be more actively involved in the EcAp process, in the definition of GES and target development. One MS stakeholder pointed out that there is a need for national experts to cooperate in the further development of the

EcAP approach.

The desk study identified a need to improve the UNEP/MAP working structure and working practices to achieve a better coordination of the national marine strategies in the Mediterranean Sea. One MS stakeholder added that there is a need to ensure that specific information is communicated to different RACs and not just the head office. For example, many issues relevant for biodiversity should be communicated directly to RAC/Specially Protected Areas (SPA).

One MS stakeholder and the RSC stakeholders indicated a need for enhanced transfer of knowledge and experience to non-EU CPs. Reflecting, among other things, the ambitious timetable of the MSFD, EU-CPs will likely be in a position to share their experience in implementing the MSFD with less advanced non-EU CPs.

4.2 PRIORITY SUPPORT NEEDS AND POTENTIAL SUPPORT ACTIONS

Drawing on the ‘pool’ of main support needs which were identified for each RSC in the previous section, this section undertakes a first prioritisation, identifying each RSC’s priority support needs. In addition, we provide outlines of one or more support options for each priority support need. These support options provide first ideas as to how the respective priority support needs could be addressed by EU and other relevant bodies’ support actions.

The next sub-section presents the approach which the project team applied to select the priority support needs from the ‘pool’ of main support needs. This is followed by a short account of various types of support actions which could be used to address the priority support needs. In the remaining sub-sections we list the priority support needs and the respective potential support actions for each RSC.

4.2.1 Selection criteria for priority support needs

For the selection of the priority support needs the project team took into account a broad range of sources. By far the most important of these was expert/ stakeholder opinion, in particular the interviews with experts working for the RSC secretariats (‘RSC stakeholder’), the results of the MSCG survey (‘MS stakeholder’), feedback from the DG Environment desk officers responsible for the four European seas, the results of the electronic stakeholder survey (‘survey stakeholder’), and the opinions provided by the local project experts (‘project expert’).

We instructed the stakeholders to provide us with their expert assessment of the priority support needs of the RSCs in relation to the implementation of the MSFD. The resulting information constitutes a good overview of a broad range of support needs. To further narrow down the set of priority support needs we took into consideration the following criteria:

- Opinions of stakeholders who can - on the basis of their position/function and the level of detail and accuracy of their responses - reasonably be assumed to command a higher level of relevant expertise and experience than other stakeholders had a stronger influence on our selection of priority needs;
- Number of stakeholders supporting a particular need: this criterion was used with some restraint, reflecting the fact that the number of ‘true’ supporters is often unclear. For example, some interviews with RSC staff were conducted as group rather than individual interviews and in the individual interviews some RSC staff did not comment on certain needs which they felt could better be commented on by one of their colleagues. In these circumstances the total level of support often remains unclear;
- Degree of support provided by stakeholders: in some cases stakeholders indicated that they thought that certain needs were the most important ones;

- Additional evidence supporting the need: this criterion mainly refers to the desk-study, which identified certain needs and which can further back-up claims that a particular need is important.

Although the interview partners and survey respondents were informed that the priority needs we asked them to identify should be relevant for the implementation of the MSFD, there may be some cases in which the identified needs do not meet this requirement. Those needs which are clearly not closely associated with the next steps in implementing the MSFD (monitoring, PoMs, also next update of initial assessment, GES, targets) and/or which are not critical for the further implementation of the MSFD were excluded from the list of priority support needs.

Please note that we assigned a short identifier to each priority support need, consisting of a three-letter short form of the acronym of the relevant RSC ('BSC'; 'HEL' = HELCOM; 'OSP' = OSPAR; 'MAP' = UNEP/MAP) and a number. In certain contexts, such as the workplan, these identifiers are used to refer to certain priority support needs.

4.2.2 Basic types of support actions

Support actions may require the provision of funding, administrative support, physical support, such as meeting facilities etc. More specifically, types of support actions relevant for this study include:

Coordination within and across RSCs and including regional and local levels, and with the EU

- Common planning, e.g. on issues which are common to the RSCs priorities and MSFD implementation, joint programmes;
- Consultation;
- Exchange of information;
- Networking;
 - With stakeholders;
 - With other European RSCs;
- Other types of coordination, e.g. development of common formats for reporting, indicators, protocols etc.;
- Technical work on descriptors, etc.;
- IT needs.

Capacity building

- Training;
- Sharing of best practice;
- 'Twinning'/staff exchange.

Research

- Support to RSC managed research projects.

4.2.3 Black Sea Commission

The following Black Sea Commission priority needs were identified taking into account the analysis and assessment of stakeholder opinions and on the basis of the relevance for MSFD implementation:

- Development of a regional integrated assessment and monitoring programme;
- Development of an integrated structure for reporting;
- Definition of regional environmental targets and GES;
- Regionally coordinated data collection and information exchange;
- Development of a coordinated research programme.

Substantive environmental issues in relation to the BSC are not covered as a separate need. This is mainly due to the fact that the few specific environmental issues identified relate to the overall issues as summarised above. For example, data collection gaps in relation to contaminants litter and fisheries have been identified by stakeholders. However they will be addressed under the priority need “Regionally coordinated data collection and information exchange”.

For each headline priority need, a number of more concrete needs are identified. For each concrete need we propose one or more support options.

Development of a regional integrated assessment and monitoring programme

In line with the needs identified by the stakeholders and the desk research, support is needed of the development of an implementable integrated monitoring and assessment regime.

Potential support options should primarily focus on capacity building, training and coordination with other RSCs, as well as the BSC Member States.

The following more specific aspects of assessment and monitoring are particularly relevant:

BSC1: Exchange of information with other RSCs on setting up integrated assessment and monitoring systems (e.g. HELCOM holistic assessment tool).

Potential support options include:

- Setting up an integrated platform on monitoring (see also below under “Regionally coordinated data collection and information exchange”).
- Capacity building and training through an expert workshop with other RSCs on monitoring and assessment experience, best practice and lessons learned.

BSC2: Capacity building and training in relation to monitoring tools and equipment.

Potential support options include:

- Capacity building workshops and training regarding monitoring tools and equipment including expertise and experience gained from other RSCs. The workshop should include representatives of the other RSCs as well as the BSC Secretariat and representatives from CPs.
- Creation of a fact sheet including information on which tools and equipment are relevant for the specific monitoring activities.

BSC3: Lessons learned from Diagnostic Reports I and II which identified the need to create an integrated monitoring and assessment system.

Potential support options include:

- The initiation of a project for consultancy and coordination during the preparation phase of the Member States’ monitoring programs and the integration of different monitoring requirements under other directives, such as the WFD.
- Better integration of the monitoring and assessment results into the work of the BSC by addressing the lack of relevant personnel (especially scientific officers).

BSC4: The drafting of a “roof report” through which the EU MS CPs can jointly fulfill some of their reporting obligations. Roof reports could be prepared for the regional components of the monitoring programmes and the programmes of measure.

Potential support actions include:

- Technical and administrative support project to assist the BSC in the preparation of the roof reports by compiling and analyzing information and preparing draft texts.
- Preparation of harmonized reporting national fact sheets in cooperation with DIKE.

BSC5: Organisation of ferry box lines and plankton recording.

Potential support actions include:

- Training related to monitoring by ferry box lines and plankton recording.
- Expert workshops focusing respectively on methods of cumulative impact assessment by ferry box lines and plankton recording; coordination with the Black Sea Global Ocean Observing System Secretariat.
- A consultancy project on shipping and the organisation of ferry boxes.

BSC6: Contaminants monitoring in sediments and biota

Potential support actions include:

- A research project regarding monitoring and assessment of contaminants in sediments and biota.
- Expert workshops on tools to enhance monitoring and assessment of contaminants in sediments and biota in cooperation with the EU Neighborhood Policy and Black Sea Synergy.

BSC7: Guidelines for monitoring and assessment of hydrographic conditions

Potential support actions include:

- Creation of a working group for the development of guidelines. This should be coordinated with relevant developments in the CIS and could be supported by the BSC subsidiary bodies (BSC Advisory Groups). Other RSCs should be invited to this working group to improve knowledge exchange and capacity building.

BSC8: Development of criteria for food web monitoring and assessment.

Potential support actions include:

- Creation of a working group for the development of criteria. This should be coordinated with relevant developments in the CIS and could be supported by the BSC subsidiary bodies. Other RSCs should be invited to this working group to improve knowledge exchange and capacity building.

Development of an integrated structure for reporting

In order to improve implementation of the MFSD, an integrated structure for reporting is needed. The reporting format has to be aligned in order to guarantee an integrated and overall approach to reporting.

BSC9: In particular there is a need to update the reporting format according to the MSFD requirements.

Potential support actions include:

- Working group with all CPs for revising existing reporting formats and identification of reporting gaps.
- Capacity building and training workshops with other RSC on suitable reporting formats and coordination thereof through an expert workshop involving relevant European Commission and RSC bodies to explore opportunities and options of linking information systems and harmonizing reporting requirements.
- Capacity building workshops for the individual reporting areas in order to close reporting gaps.

BSC10: Further assistance in relation to reporting of the EU MS CPs of the Bucharest Convention. This may be extended to non-EU CPs should the format of fact sheets be promoted within the BSC system.

Potential support options in this regard can include:

- Providing technical and administrative support in relation to national reporting under Article 11 and 13 MSFD through the preparation of roof reports (see above) by compiling and analysing information and preparing draft texts.
- Preparation of harmonised national reporting fact sheets in cooperation with WG DIKE.

Definition of regional environmental targets and GES

To improve the coherence of regional MSFD implementation, regional environmental targets and GES need to be developed. Relevant activities could be launched at the CPs meetings in 2014.

BSC11: One key need is to enhance cooperation between the BSC CPs in the target and GES setting process in order to coordinate objectives (GES) and targets developed under the Bucharest Convention and the MSFD, ideally in the form of regional environmental targets and GES.

Potential support actions include:

- One or two regional workshops on revising existing targets and establishing the areas where targets are missing. The same process can be applied in relation to GES.
- Expert workshops aiming to detail the exact BSC's support needs in each of these target/GES areas.
- Technical support to prepare fact sheets outlining the relevant and missing information in each area.
- As a follow-up of the workshop, establishment of a working group to align the existing targets and defining missing targets, as well as a working group on GES.
- Technical assistance project(s) to identify areas where the BSC should take the lead in developing/coordinating proposals for targets.

BSC12: Specific targets are needed in the area of fisheries and underwater noise. These are not covered by the BSSAP.

Potential support options include:

- Technical support to include underwater noise into the relevant national legislation of the BSC's CPs.
- Initiating the discussion on a regional agreement on fisheries through a workshop updating the draft legally binding agreement on fisheries.

BSC13: The 2009 BSSAP needs to be updated and include the results of the new State of the Environment report (SoE).

Potential support options include:

- Technical support project to update BSSAP targets on the basis of the new SoE, while aligning with the MSFD approach.

Regionally coordinated data collection and information exchange

To strengthen the role of the BSC as a regional platform, its data collection and information exchange function needs to be reinforced.

BSC14: One key need in this regard is to integrate available information into monitoring, assessment and reporting. Consultancy and technical support is essential in this regard.

Potential support options include:

- Capacity building and training of staff to understand inter-linkages and connections of individual data sheets and the relevance for monitoring and assessment.

BSC15: Coordination and data sharing needs to be improved. This relates, in particular, to information exchange regarding GES and targets and the information and knowledge exchange of Black Sea data.

Potential support actions include:

- Technical assistance relating to the preparation of data fact sheets for individual targets and objectives/GES. In a first phase, pilot cases could be developed in the EU MS CPs in order to promote the use of data fact sheets within the BSC.
- Technical support to set up a database for sharing data and information on regular annual reports of the BSC CPs.
- Technical support to set up a database containing information on past and current projects in the Black Sea.
- Technical support for the development of a website presenting information in a transparent and easily accessible way.
- Addressing existing IT gaps relating to equipment and dedicated staff in the Black Sea Commission's Permanent Secretariat (BSC PS).

BSC16: Improving the comparability of collected data.

Potential support actions include:

- Technical support to create a well-structured and clear data base which facilitates comparisons and overviews.
- A technical support project exploring the reasons why data is not comparable and possible solutions.
- A workshop involving all RSCs, the European Commission, EEA and other relevant entities on the options and prospects of co-ordinated data management.

BSC17: Gaps in data collection in the areas of contaminants, marine litter and fisheries.

Potential support actions include:

- Capacity building and training workshops to exchange best practices with other RSCs and technical experts in order to establish how data gaps can be best addressed.
- Technical assistance to create fact sheets identifying the type of data which needs to be

collected to better identify the equipment needed.

Development of a coordinated research programme

The underlying component for monitoring, assessment and reporting activities, as well as data collection under the MSFD is research. For a coherent application of the MSFD, it is essential to close existing knowledge gaps.

BSC18-20: Existing research and knowledge gaps mainly relate to specific environmental issues:

- BSC18: The impact of marine litter at the ecosystem level, including chemical aspects;
- BSC19: The impact of climatic variability and change on ecosystem functions;
- BSC20: Socio-economic analysis and assessments of pressures and impacts.

Potential support options include:

- A research project on litter pollution should also focus on data collection and best practice examples in other RSCs.
- Coordinated research on the impacts of climatic variability/change on the marine ecosystems could benefit from inclusion in the programming of European research support, in particular the European Research Area-NET (ERA-NET) scheme.
- A research project concerning socio-economic analysis and assessments of pressures and impacts could be carried out in cooperation with local Universities and/or research institutions.

4.2.4 HELCOM

On the basis of the analysis and assessment of stakeholder opinion and taking into account relevance for MSFD implementation, the following HELCOM headline priority needs were identified:

- Revision of joint monitoring and assessment
- Development of additional common indicators and targets
- Joint Programme of Measures
- Enhancing information systems and accessibility
- Research to close knowledge gaps

The HELCOM headline priority needs cover the main substantive environmental issues and pressures. The selection also draws on the analysis and assessment of stakeholder opinion, taking into account relevance for MSFD implementation. These environmental issues are:

- Biodiversity
- Marine litter
- The impacts of shipping

While eutrophication is probably the most important underlying environmental problem in the Baltic Sea, HELCOM has long-standing experience in this area which would limit the dependency of HELCOM activities in this area on additional external support projects in the specific context of MSFD implementation.

For each of the headline priority needs stated above a number of more concrete needs are identified. For each concrete need, we propose one or more potential support options.

Revision of joint monitoring and assessment

HELCOM joint monitoring and assessment activities need to be revised to better take into account the requirements and the timetable of the MSFD. A draft revised HELCOM monitoring and assessment strategy is currently being discussed. Support is a high priority and would have to be closely coordinated with the HELCOM MONAS group, which has been extended until the end of 2014 and is working on relevant issues.

The following more specific aspects of monitoring and assessment are particularly relevant:

HEL1: The revision of the HELCOM joint monitoring activities concerns, in particular, joint methods for sampling, analyses, data storage and quality assurance. Support activities could, among other things, draw on the experience gained with the development of the joint monitoring method (mapping) for habitats/biotopes.

Potential support options include:

- Administrative and financial support for organising regional workshops involving relevant CP and other experts to share best practice.
- Administrative, technical and financial support for training sessions on monitoring practices and methods, including sampling, analyses, data storage and quality assurance, involving relevant CP, RSC and EU experts.
- Financial support for some CPs (Eastern Baltic) to adapt the physical infrastructure, e.g. laboratory (sampling and analytical) equipment.
- A research project comparing different monitoring programmes and assessment results by scientific standards.

HEL2: Co-ordination of monitoring among RSCs. This would need to build on the plans and first steps undertaken by HELCOM and OSPAR to coordinate their approaches to monitoring.

Potential support options include:

- A workshop including representatives from all four RSCs and the Commission to discuss options to further intensify cooperation between HELCOM and OSPAR and possibilities to extend cooperation to the BSC and UNEP/MAP as well as ways in which such cooperation could be supported externally.

HEL3: Monitoring of loads and pressures needs to be improved and harmonised. A first step could focus on monitoring for nutrient and hazardous substances inputs and/or of maritime traffic related issues, i.e. ballast water/alien species and compliance with fuel quality limits.

Potential support options include:

- Administrative and financial support for organising a regional workshop involving experts, CP representatives and other relevant stakeholders to discuss and develop options for harmonisation.
- Cooperation with OSPAR and, potentially, other RSCs. OSPAR has considerable experience with hazardous substances and, conversely, could itself benefit from HELCOM experience with nutrients. Cooperation on ballast water could build on the ongoing co-operation with OSPAR in this area.

HEL4: To coordinate the assessment of achieving GES among the EU CPs, new/revised assessment systems need to be developed.

Potential support options include:

- A workshop involving HELCOM MONAS, other representatives of CPs, the Commission, and relevant experts to identify the most important needs regarding assessment tools, e.g. the HELCOM Chemical Status Assessment Tool - CHASE, the Holistic assessment of the Baltic marine environment, including a thematic assessment of hazardous substances - HOLAS and the HELCOM Biodiversity Assessment Tool - BEAT (HEAT is fully developed), which would have to be (further) developed as well as remaining gaps and options to provide external support for the (further) development of such tools. For use under the MSFD, most existing tools will need to be more flexible so as to allow for more detailed and geographically disaggregated assessments.

HEL5: There is a need to improve the integration of socio-economic assessment into the work of HELCOM which has in this respect so far depended on external projects.

Potential support options include:

- A workshop involving the HELCOM secretariat, representatives of HELCOM CPs, and institutions having leading expertise on economic and social analysis with respect to the Baltic Sea as well as on quantifying the cost of degradation of the marine environment and of ecosystem services. The workshop should focus on identifying concrete options for cooperation for the 2018 assessment.

HEL6: To enhance the coherence of the regional approach to monitoring and assessment and of the resulting PoMs and to increase the efficiency of reporting, reporting at the HELCOM regional level needs to be strengthened. This should allow CPs to fulfil a significant part of their reporting obligations under the MSFD through regional level reporting, thereby also making regional cooperation more attractive for CPs.

Potential support options include:

- Workshops involving relevant staff of the HELCOM secretariat, the Commission and CPs to discuss the detailed conditions and requirements of producing HELCOM ‘roof reports’ on monitoring programmes (planned for 2014), PoMs and the 2018 Assessment (HELCOM report planned for 2017) which comply with the reporting requirements of the MSFD and cover a significant share of MS’s reporting obligations.
- Administrative and technical support to develop reporting sheets, gather and analyse information and provide draft input for the ‘roof reports’. As a first step - and related to assessment – the approach could be developed for, and applied to, a more limited field, for example the production of a new HELCOM maritime assessment or the planned (for 2015/first half of 2016) biodiversity assessment.

Development of additional common indicators and targets

Despite the development of twenty-five HELCOM common core indicators (biodiversity and hazardous substances), an additional eight “pre-core” indicators - to be developed further by the HELCOM CORSET I project - and a “demonstration set” of new eutrophication core indicators, there is a need to adopt additional targets and common indicators to sufficiently cover MSFD descriptors. These could be adopted as appropriate at national level or at regional level.

At regional level, the following more specific aspects are particularly relevant:

HEL7: Additional regional targets need to be developed and agreed in a range of areas, relating both to environmental conditions and to human pressures. Relevant areas for target development include the following: aspects of biodiversity, marine litter, underwater noise, commercially exploited fish stocks, maritime traffic, offshore and coastal development.

Potential support options include:

- Workshops focusing on the individual areas to discuss different types of targets, their feasibility and requirements and potential effectiveness, including relevance in terms of GES boundaries. In particular for the targets relating to human pressures, the workshops should involve relevant sectoral/economic actors in addition to RSC and CP representatives and experts. The workshops could build on existing HELCOM initiatives and cooperation, such as in the area of fisheries HELCOM's Fisheries and Environment Forum (HELCOM FISH/ENV) forum and the ongoing cooperation with ICES.
- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience.

HEL8: In particular with a view to the formulation of PoMs, there is a need to develop indicators for human activities/pressures. Concerning the various pressures associated with maritime traffic, HELCOM is in a relatively good position in terms of availability of data because of the HELCOM AIS.

Potential support options include:

- Technical and financial support for the construction of a Baltic-wide coherent and user-friendly pressure database.

HEL9: Additional regional indicators need to be developed and agreed in a range of areas, relating to both environmental conditions and human pressures. Relevant areas for indicator development include the following: aspects of biodiversity, marine litter, underwater noise, commercially exploited fish stocks and alteration of hydrographical conditions. As there is no or only very partial HELCOM monitoring of biodiversity, marine litter and underwater noise, development of indicators in these areas appears to be particularly important as a condition for monitoring.

Potential support options include:

- Building, among other things, on the report 'HELCOM core indicators: Final report of the HELCOM CORESET project' which assesses the set of common HELCOM core indicators, workshops focusing on the individual areas to discuss different types of indicators, their feasibility and requirements and potential effectiveness, including relevance in terms of GES boundaries.
- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience and identify areas where common indicators could be adopted.

HEL10: There is a lack of expertise concerning the link between indicators and targets and GES.

Potential support options include:

- Training workshop for relevant HELCOM and CP experts and officials on relevant issues for indicator and target development.

HEL11: The common set of HELCOM core indicators needs to be made operational from data collection and monitoring to assessment. Support would have to be closely coordinated with the HELCOM CORSET II project which is working on relevant issues.

Potential support options include:

- Administrative and technical support to develop and implement HELCOM projects on making the HELCOM core indicators on biodiversity and/or hazardous substances operational. This could build on the proposed HELCOM project “Making HELCOM Eutrophication Assessments Operational (HELCOM EUTRO-OPER)”.
- A common HELCOM/OSPAR workshop to exchange best practice and experience on issues and approaches relevant for making indicators operational.

Joint Programme of Measures

Pressures with a significant trans-boundary environmental dimension should be addressed at the appropriate (sub-)regional level. This requires common planning and assessment of measures.

The following more specific aspects are particularly relevant:

HEL12: Development of a HELCOM joint Programme of Measures covering transboundary pressures.

Potential support options include:

- Administrative and technical support project to assist HELCOM in drawing up the programme, namely in carrying out identification, assessment - including socio-economic - and discussion and development of potential common measures.
- Workshops to discuss proposed common measures with a broader range of CP officials from different government agencies, NGOs and economic stakeholders from different sectors.

Enhancing information systems and accessibility

Compared to the situation in some of the other European seas, data on the state of the environment, loads and inputs and on human activities/pressures exist for the Baltic Sea. However, this information is frequently not accessible at the regional level either because it is not supplied in time or in the correct format, because HELCOM is not given access or because HELCOM currently does not have the means to present this information in a targeted and user-friendly way.

The following more specific aspects are particularly relevant:

HEL13: Improvement of data systems and infrastructure to make regional-level data more easily accessible.

Potential support options include:

- Financial support for the modernisation and extension of the HELCOM data infrastructure to allow HELCOM to deal with the additional data and information associated with, among other things, the adoption of new indicators and to improve accessibility of information, for example by integrating the HELCOM online Pollution Load User System (PLUS) into the Map and Data Service.
- Workshops to discuss and assess information system needs, develop data management strategies, and identify options to improve data presentation, accessibility and user-friendliness. This should be coordinated, in particular, with HELCOM CORSET II which is responsible for the operationalization of the common HELCOM core indicators.

HEL14: Relevant national authorities frequently either fail to make data available for the common data base or they do so belatedly or in the wrong format.

Potential support options include:

- Administrative support in particular at the beginning of major HELCOM assessments to help improve the completeness, timeliness and quality of data submission to the common data base.
- A workshop including representatives from the HELCOM Secretariat and from relevant national authorities and ICES to identify and discuss the reasons for lack of access and options how to improve access.

HEL15: Data on various pressures in the Baltic Sea need to be improved. This concerns, inter alia, fisheries, physical pressures and aspects of shipping, such as accidents and leisure shipping.

Potential support options include:

- Technical support project to compile regional data sets (data comparability, data mining, data modelling) which should be made freely available.
- Financial and/or technical support for the construction of a user-friendly pressure database.

Research to close knowledge gaps

Research coordination in the Baltic Sea region is relatively advanced, not least due to the existence of the BONUS coordination platform. Nonetheless, additional support and coordination appear to be necessary to ensure that important knowledge gaps are closed in a timely manner. This concerns both cross-cutting gaps, in particular research on:

- HEL16: cumulative effects and the addition of pressure layers;
- HEL17: the ecosystem approach;
- HEL18: links between pressures and impacts;
- HEL19: socio-economic assessment and valuation of ecosystem services;

and particular environmental issues:

- HEL20: Aspects of biodiversity, such as the number of remaining harbour porpoise and aliens species introduced via ballast water;
- HEL21: marine litter;
- HEL22: underwater noise;
- HEL23: food-webs.

and particular human pressures such as:

- HEL24: shipping, including leisure shipping.

The following more specific aspects are particularly relevant:

- HEL25: Updating and programming of potential funding sources and coordinators, in particular BONUS and EU research programmes.

Potential support actions include:

- Administrative support to coordinate and provide input to funding coordination and funding bodies, such as BONUS and the EU research funds and develop project strategies which allow, for example, for projects to have sub-regional components.
- Workshops to agree which topics should be covered by which funding programme. In particular the cross cutting topics are likely to be of great interest to the other RSCs - in particular with respect to aspects of biodiversity, marine litter and underwater noise. The other RSCS should therefore participate in the workshop.
- Direct EU financial support for projects of limited size and which are particularly closely

linked to the MSFD.

4.2.5 OSPAR

On the basis of the analysis and assessment of stakeholder opinion and taking into account relevance for MSFD implementation, the following OSPAR headline priority needs were identified:

- Development of a regional integrated assessment and monitoring programme;
- Development of OSPAR common indicators;
- Supporting the coherent determination of GES;
- Regionally coordinated data and information reporting;
- Developing agreement on common policy requirements and opportunities for coordination in the development of measures.

The development of common targets is not explicitly included as a separate activity in this list. There are two main reasons for this: first, with the exception of large scale and transboundary issues, local and national targets may be sufficient given properly defined GES and the availability of common indicators. This constrains the role of the RSCs. Second, OSPAR follows a “bottom-up” approach which reflects the complexity of the NEA as a region. This limits OSPAR’s capacity to develop targets to ensure (sub-)regional coherence.

Priority substantive environmental issues are covered within the OSPAR headline priority needs. The selection of these is also based on the analysis and assessment of stakeholder opinion, taking into account relevance for MSFD implementation. These environmental issues are:

- Biodiversity;
- Marine litter;
- Impacts of shipping and off-shore industries, in particular underwater noise.

For each headline priority need, a number of more concrete needs are identified. For each concrete need, we propose one or more support options.

Development of a regional integrated assessment and monitoring programme

In line with the requirements of the MSFD, OSPAR assessment and monitoring procedures need to be better aligned. This can happen in the framework of the update of the Joint Assessment and Monitoring Programme which OSPAR plans to develop by 2014.

The following more specific aspects of assessment and monitoring are particularly relevant:

OSP1: Development of a scheme for assessing and monitoring wider biodiversity status at the ecosystem scale beyond protecting individual species and habitats or specific sites: This could draw on a variety of activities such as improved monitoring and assessment of the pressures affecting biodiversity, of functional components such as foodwebs, functional groups, of ecosystems, and improving the balance and comprehensiveness of OSPAR’s assessment and monitoring approach.

Potential support options should primarily focus on supporting the work of ICG-COBAM. This could include:

- One or two expert workshops to explore the best way forward, for example in terms of the different approaches mentioned above (pressures, functional components, balance and comprehensiveness);
- A workshop to explore the availability of relevant data, for example in cooperation with the Directorate General for Maritime Affairs and Fisheries (DG MARE), who are increasing their

surveillance of relevant human activities, and the [European Marine Observation and Data Network](#) (EMODNET), concerning pressures.

- An external project providing research and technical support for ICG-COBAM supporting the further development and implementation of the chosen approach, for example with respect to the development of methods of assessing cumulative pressures and impacts and of assessing ecosystems;
- A project to support testing of monitoring protocols regarding ballast water in harbors;
- A research project to assess the risk of new species introductions through ballast water and to develop a method to formulate target species lists.

OSP2: Monitoring and assessment of the impacts of marine litter, in particular of micro-plastics.

Potential support options could focus on the development of the regional action plan on marine litter which will include quantitative targets.

- Two expert workshops focusing respectively on methods of cumulative impact assessment of marine litter and on socio-economic assessment could be held;
- A research project on marine debris, microplastics, ingestion and entanglement.

OSP3: Improved monitoring of the impact of shipping, including underwater noise, and of underwater noise associated with off-shore industries.

- An expert workshop on standardizing methods to assess the impacts of sound on marine species and on cumulative impacts of different sources;
- A workshop and research project on modeling of ambient and impulsive noise.

Development of OSPAR common indicators

To improve the coherence of the MSFD implementation at regional and sub-regional level, common indicators need to be adopted as appropriate. This happens in the framework of OSPAR's special programme of work to develop common indicators across GES Descriptors. So far OSPAR has developed 35 common indicators for application under MSFD Descriptors D1, D2, D4 and D6. A first subset of these was adopted in June 2013. While additional common indicators are expected to be adopted in 2014, there is uncertainty regarding the future of a significant number of remaining indicators.

The following more specific aspects are particularly relevant:

OSP4: Further development of biodiversity indicators linked to pressures. This could build on the results of the HARMONY project which mapped pressure layers (natural and human activities) for the eastern part of the Greater North Sea.

Potential support options could focus on mapping of pressure layers on other NEA regions and/or on supporting the development of pressure related indicators using, inter alia, the results of the HARMONY project.

- An expert workshop could be held involving ICG-COBAM, CPs, and relevant experts to discuss the way forward;
- Depending on the results of the workshop, a research (mapping pressures) and/or a technical support project (developing indicators) assisting ICG-COBAM could be useful.
- A technical support project for ICG-COBAM providing expertise regarding the practical implications of proposed indicators in terms of performance, monitoring requirements and costs as these are often neglected during the development stage but uncertainty regarding these aspects tends to cause problems at the political adoption stage.

OSP5: Further review and assessment of the sufficiency/identification of gaps in the set of adopted and proposed OSPAR common indicators in relation to GES (D1, D2, D4, D6). This should build on the review undertaken by ICES in June 2013.

Potential support actions include:

- Technical assistance project which could, *inter alia*, take into account the results of the Article 12 Assessment, possible revisions of OSPAR advice documents (D1, D2, D4, D6) and of Commission Decision EU/2010/477, extend the geographical scope of the analysis, refine the methodology and provide more detail.

OSP6: Development of indicators regarding alien species in ballast water.

Potential support actions include:

- Technical assistance project supporting ICG-COBAM in the development of indicators. Given the existing cooperation between HELCOM and OSPAR in the area of ballast water, this could perhaps be designed as a common HELCOM/OSPAR project.

OSP7: Development of indicators in 'new' areas, i.e. food-webs, marine litter and underwater noise.

Potential support actions include:

- Expert workshops aiming to identify OSPAR's support needs in each of these areas. For example on food-webs indicators, participants should include, *inter alia*, ICG-COBAM and the FP7 DEVOTES project who are engaged in relevant work.

OSP8: Testing of proposed common indicators to generate more information about their practical performance. Some testing of indicators is scheduled to take place under the DEVOTES project. Testing could reduce uncertainty regarding the costs of monitoring which is an important reason why CPs can be reluctant to adopt new indicators. OSPAR will decide in 2013 how testing should be done.

Potential support actions include:

- Technical support project which can build on and cooperate with DEVOTES project (DEvelopment Of innovative Tools for understanding marine biodiversity and assessing good Environmental Status) and could include ICES.

OSP9: Identification of indicators which should be common for HELCOM and OSPAR.

Potential support actions include:

- A technical assistance project to develop criteria and identify and propose a number of indicators which should be common to HELCOM and OSPAR;
- One or two common HELCOM/OSPAR workshops to discuss the work of the technical assistance project and build agreement between HELCOM and OSPAR on a set of common indicators.

OSP10: Assessing the extent to which OSPAR common indicators can rely on existing monitoring capacities.

Potential support actions include:

- Technical support project working with ICG-CCOBAM to assess existing monitoring capacities in relation to the common indicators.

Supporting the coherent determination of GES and the choice of targets and indicators

There is a need to review and, where necessary, revise the criteria and methodologies used to determine GES on the basis of the experience with implementing the MSFD so far, and in particular the Article 12 Assessment.

This can be done by:

OSP11: A review and, where necessary, revision of existing OSPAR advice documents for Biodiversity (D1, D2, D4, D6), D5, D7, D8 and D10), feeding OSPAR's regional expertise into the preparatory work under the MSFD CIS for the review of Commission Decision 2010/477/EU, and consideration of using modelling to enable the adoption of common targets for eutrophication based on a 'burden sharing' approach.

Potential support actions include:

- A technical support project could assist the respective OSPAR working groups in the timely review of the advice documents and the preparation of input into the CIS process.
- A workshop together with HELCOM to discuss the experience of HELCOM with target setting based on modelling and 'burden sharing' and options of using a similar approach in the OSPAR context.

Regionally coordinated data and information reporting

To make full use of OSPAR as a regional platform for the national implementation of the MSFD, there is a need to significantly improve OSPAR's data and information processing and reporting capacities. Among others, the OSPAR data and information systems task group is working on this.

The following more specific aspects of data and information processing and reporting are particularly relevant:

OSP12: There is a need to improve, modernise and make operational web-based OSPAR data bases to ensure all data is accessible and where relevant can be displayed geographically, also ensuring compatibility with INSPIRE.

Potential support actions include:

- Capacity building and training programmes potentially also involving ICES in relation to data infrastructure and systems to allow RSCs to take the lead in making available regional data and information resulting from assessments and monitoring. This needs to be co-ordinated with the financial and other assistance which CPs provide to improve data and information management, including the development of a web-based interface and visualization;

OSP13: Development of data management strategies, in particular for the data of the existing and future indicators. This would have to be co-ordinated with the modernization of the data infrastructure and systems and, as far as possible, other RSCs (see below). It could build on an ICES workshop which dealt, inter alia, with the management of the indicator data.

Potential support actions include:

- A project providing technical assistance with the development of data management strategies.

OSP14: Ensuring, as far as possible, compatibility of data management strategies among the RSCs. This could build on the on-going information exchange between the OSPAR data and information

systems task group, HELCOM, the EEA and ICES and a forthcoming paper developed in cooperation with the EEA on RSCs cooperation on data management.

Potential support actions include:

- A workshop involving all RSCs on the options and prospects of co-ordinated data management.

OSP15: Supporting RSCs in the production of regional roof reports through which MS can jointly fulfil some of their reporting obligations. Roof reports could be prepared for reporting on the regional components monitoring programmes, the programmes of measures and the 2018 assessment, based on, inter alia, OSPAR's common indicators, OSPAR's revised Joint Assessment and Monitoring programme, regional-level planning/assessment of measures.

Potential support actions include:

- Technical and administrative support project to assist OSPAR in the preparation of the roof reports by compiling and analysing information and preparing draft texts. However, in particular with respect to the programmes of measures, the role of OSPAR still appears to be somewhat uncertain.

OSP16: Improvement of links between RSCs and MSFD reporting requirements and information systems to allow the MS to fulfil their requirements under the MSFD on reporting, in particular through RSC roof reports (see above) and to give the RSCs access to information resulting from monitoring and assessment.

Potential support actions include:

- An expert workshop involving relevant European Commission and RSC bodies to explore opportunities and options of linking information systems and harmonising reporting requirements.

Developing agreement on common policy requirements and opportunities for coordination in the development of measures

There is a need to support OSPAR in facilitating agreement on policy requirements and opportunities for coordination in the development of measures whenever there is a need to coordinate on a regional scale in 2013-2015. Opportunities for, and the benefits of, coordination are particularly relevant at the sub-regional level, reflecting the considerable differences among the OSPAR sub-regions.

Relevant activities include OSPAR involvement in assessment of measures and overall co-ordination and planning as well as in the coordination or adoption of measures addressing particular environmental concerns:

OSP17: Clarification of the role of OSPAR in the MSFD implementation process and identification of areas where there is a need for (sub-)regional coordination on which OSPAR should take the lead. While this is relevant for implementation of the MSFD in general, an initial focus could be on clarifying the involvement of OSPAR in the development of the PoMs and to identify concrete topics on which OSPAR should take the lead.

Potential support actions include:

- Regional workshop to discuss the potential role of OSPAR with respect to the development of the PoM and to identify areas where OSPAR should take the lead;

- Technical assistance project to identify areas where OSPAR should take the lead in developing/coordinating proposals for measures.

OSP18: MS used different approaches for the socio-economic analysis in the context of the MSFD Initial Assessment. However, if the pressure or condition which a given measure is to address is of a regional nature, then the socio-economic assessment and CBA should be done on a regional basis. In this case OSPAR should provide or coordinate the assessment and CBA of the respective measures to ensure a regionally coherent approach.

Potential support actions include:

- An expert workshop involving relevant OSPAR bodies, CPs, DG ENV, ICES and others to discuss options for OSPAR involvement in socio-economic analysis and CBA in the context of the development of the PoMs;
- A technical and administrative support project potentially involving ICES which can provide OSPAR with the expertise and administrative support needed to co-ordinate and develop a common framework to carry out socio-economic assessments and CBA of proposed measures. For the purpose of coordination of national approaches and development of a common framework a series of workshops involving primarily relevant national experts could be useful.

OSP19: There is a need to support co-operation on socio-economic analysis and CBA with HELCOM or among all four RSCs.

Potential support actions include:

- A common workshop on the (potential) involvement of the RSCs in, and their experience and approaches to, socio-economic analysis and CBA could be a first step.

OSP20: In the longer term, involvement of OSPAR in maritime spatial planning may contribute to strengthening the regional dimension in the planning of measures and the development of PoMs. In 2011, there was a workshop on maritime spatial planning, involving HELCOM Vision and Strategy around the Baltic Sea (VASAB), OSPAR and ICES which could be the basis for further cooperation between HELCOM and OSPAR on maritime spatial planning.

Potential support actions include:

- Workshop involving, inter alia, HELCOM, OSPAR and ICES on the present and potential future role of MSP with respect to the PoMs and options of involvement of the RSCs in relevant MSP processes.

OSP21: Further improvement of dialogue structures with economic sectors such as fisheries and shipping. Through such structures, participants from OSPAR and relevant national, EU and international authorities can improve and share knowledge and experiences, highlighting any constraints and needs for support.

Potential support actions include:

- Workshop involving partners from the relevant economic sectors to raise awareness, and interest in, and discuss options for the establishment of new dialogue structures. Examples for cooperation already exist with, for example, joint HOD (Heads of Delegation), meetings of OSPAR and NEAFC (North East Atlantic Fisheries Commission) or HELCOM's Agri/Env and Fish/Env forums. Such cross-sector inter-institutional cooperation could also draw e.g. on OSPAR's experience gained in the inter-institutional cooperation on the management of high

seas MPAs.

OSP22: Development of targeted measures to support the protection and conservation of all threatened and declining species and habitats on OSPAR's list.

Potential support actions include:

- A workshop which should include as participants representatives from all relevant levels (local/regional (habitats), national, EU, international) and main relevant economic sectors to develop and discuss potential common/coordinated measures to address those species and habitats which are currently not adequately addressed.

OSP23: Establishment of additional MPAs, particularly beyond the coasts and in areas beyond national jurisdiction.

Potential support actions include:

- A workshop involving CPs, DG ENV, relevant technical experts, academics and other stakeholders to identify priority areas which need to be protected and to discuss the way forward.

OSP24: Ensuring that OSPAR MPAs are effectively managed.

Potential support actions include:

- A HELCOM/OSPAR joint workshop to facilitate an exchange of best practice among staff from different levels and institutions involved in the management of OSPAR MPAs and of HELCOM MPAs.

OSP25: Cooperation between OSPAR and UNEP/MAP on marine litter and the formulation of action plans.

Potential support actions include:

- A common OSPAR-UNEP/MAP workshop to exchange experience and discuss the state of play and plans regarding the respective action plans on marine litter with a view to mutual learning and a co-ordinated approach.

OSP26: Development of assessment methods for socio-economic impacts of marine litter.

Potential support actions include:

- An expert workshop bringing together relevant OSPAR and CP experts on marine litter with experts on socio-economic impact assessment of measures to protect the marine environment. The workshop could also involve UNEP/MAP and other RSCs. It should be co-ordinated with more general work of the RSC's and ICES on socio-economic assessment;
- A research project to develop a methodology for socio-economic impact assessment of marine litter. This could also involve the other RSCs and ICES.

4.2.6 UNEP/MAP

On the basis of the analysis and assessment of stakeholder opinions and taking into account the relevance for MSFD implementation, the following UNEP/MAP headline priority needs were identified:

- Development and implementation of an integrated and targeted monitoring programme;
- Support regarding data collection, reporting and information systems;
- Specification of GES, targets and environmental objectives;
- Development of a coordinated research programme.

Regarding specific environmental issues, there are generally two types of areas: first, areas where a significant body of data/knowledge is already available, such as for example regarding hazardous substances, nutrients and some aspects of biodiversity. In these areas the main support needs relate to sharing of good practice and experience, development of common methods, quantification of targets and specification of monitoring requirements and assessment of impacts, in particular cumulative impacts.

Regarding the second area, including marine litter, noise, many aspects of biodiversity and certain economic activities, such as fishing and shipping, very little knowledge and data is available. The main issues relate to the development of common research projects and a common regional work programme to address gaps in data/knowledge, co-ordinated development of monitoring programmes and provision of baseline information through data gathering and investigative monitoring are key issues.

For each headline priority need, a number of more concrete needs are identified. For each concrete need we propose one or more support options.

Development and implementation of an integrated and targeted monitoring and assessment programme

The development of integrated and targeted monitoring and assessment is a key issue in terms of the role of UNEP/MAP in coordinating the national implementation of the MSFD at regional level and implementing the EcAp.

More specific support needs in this regard are:

MAP1: Support to further develop and establish good laboratory practices, quality assurance and control, and voluntary accreditation procedures of national laboratories for implementation of the integrated monitoring programme. This is essential for the year 2016/2017 and has already been done for D5 and D9 but not for the remaining descriptors.

Potential support options include:

- Drawing on the experience gained with establishing the procedures for D5 and D9, gaps and challenges with respect to other descriptors should be identified in an expert workshop. The workshop should, among others, include some of the experts who developed the existing procedures as well as experts dealing with the remaining descriptors.
- Expert working groups for each remaining descriptor including experts from the existing national laboratories and representatives of the individual CPs.
- Support for setting up a working group on analysis and quality control/assurance and drafting common manuals. The working group should include representatives of the sectors concerned.

MAP2: Technical support for the development of common guidelines on methods and standards for sampling. This activity is already partly funded but needs additional funding.

Potential support options include:

- Technical support to identify existing gaps and for the revision and updating of existing

technical guidance on methods and standards for sampling.

MAP3: Supporting the implementation of the integrated and targeted monitoring and assessment programmes in third countries, especially relating to capacity building for the development of national programmes.

Potential support actions include:

- Technical and administrative support for a review of the UNEP/MAP capacity building programme based on specific third country needs for implementing training on the integrated monitoring and assessment programme (presented in September 2013) and identification of specific needs for the individual countries.
- Subsequent capacity building and training workshops relating to the individual needs of the third countries in 2015-2017. The workshops should include representatives from the specific countries and other RSCs who can share best practice, experience and knowledge related to the particular issues identified.
- Technical and administrative support for the preparation of harmonized national reporting fact sheets in cooperation with WG DIKE.

MAP4: Support to develop and apply new methods of monitoring e.g. ferry boxes, moorings and buoys and airborne surveillance

Potential support actions in this regard include:

- Workshop to exchange experience on new methods with other RSCs.
- Cooperation with the European Environmental Agency (EEA), for example on a research project relating to the cumulative impacts, and/or determination of monitoring characteristics and tools.
- An expert workshop on standardizing methods to assess the effectiveness of ferry boxes, moorings and buoys and airborne surveillance for assessing cumulative impacts of different sources;
- Support for a pilot project in one specific region testing the new methods developed.

MAP5: Support to assess cumulative and socio-economic impacts of pressures, including on marine and coastal biodiversity.

Potential support options include:

- Expert workshop focusing on methods of cumulative impact assessment;
- Technical workshop and training on using relevant monitoring tools and equipment.

MAP6: Preparation and coordination of socio-economic assessment compatible with MSFD requirements (Initial Assessment, PoMs). This has not been included in UNEP/MAP work so far.

Potential support options include:

- Two training workshops for relevant RSC and CP officials focusing, respectively, on socio-economic assessment of the use of the Mediterranean Sea and on determining the cost of degradation of the marine environment. This should be organized in co-operation with experts on socio-economic assessment of the Mediterranean and economic valuation of the degradation of the marine environment.
- One or more research projects conducting pilot socio-economic assessments in EU CPs which make a significant contribution to the countries' obligations under the MSFD.
- One or more "demonstration" research projects developing examples of the socio-economic

benefits of achieving GES in major non-EU CPs.

Support regarding data collection, reporting and information systems

Support is needed in improving the collection, presentation and comparability of data as a basis of a functioning and integrated monitoring system and for reporting.

More specific support needs in this area are:

MAP7: Streamlining methodologies and data collection and ensuring compatibility with new data storage and assessment requirements.

Potential support options include:

- Support for a pilot cooperation project with two RSCs looking at one specific issue; and subsequently setting up an expert group to foster exchange of experience.
- Technical support for the development of common data collection and reporting formats throughout the region.
- Foster the ongoing involvement of the CPs in CIS work through training workshops in the Member States.
- A workshop involving all RSCs on the options and prospects of coordinated data management.
- Preparation of harmonized reporting national fact sheets in cooperation with WG DIKE.

MAP8: Support to adapt common data sharing platforms (MEDPOL) to new monitoring requirements e.g. new parameters.

Potential support options include:

- Technical support for the development of a user-friendly portal for data entry using standard data formats (e.g. new MEDPOL Info System).
- A project providing technical assistance with the development of data management strategies.

Specification of GES, targets and environmental objectives

The definition of GES, targets and environmental objectives is a fundamental step under the MSFD. There is a need to review and, where necessary, revise the criteria and methodologies used to determine GES on the basis of the experience with implementing the MSFD so far, and in particular the Article 12 Assessment.

Particular support needs are:

MAP9: Definition of threshold values and reference conditions as well as defining GES at indicator level.

Potential support options are:

- Further support for the existing work of the Integrated GES Correspondence Group (meetings already financed).
- Establishment of environmental assessment criteria (EAC), background concentrations, reference conditions and threshold values through additional Integrated GES Correspondence Group meetings with experts from all three clusters, giving their recommendations to the upcoming monitoring and assessment work. Funding is partially available for this.
- Training workshop including experts from other RSCs sharing their expertise and knowledge regarding environmental assessment criteria.

MAP10: Investigate links between different targets and indicators in order to identify ‘priority’ targets applicable to several descriptors/’EOs’

Potential support options are:

- Expert meeting including experts from the different CPs in order to identify ‘priority’ targets for the region.
- Research project focusing on inter-linkage of targets and indicators to identify ‘priority’ targets.

Development of a coordinated research programme

One further key issue regarding the coherent implementation of the MFSO relates to the improvement of the knowledge base within the region. The coordination of research activities is essential for progress in this area and for closing knowledge gaps.

Regarding support for research and research co-ordination, the following issues are particularly relevant:

MAP11: Ensuring that the results of research projects are incorporated into the work of UNEP/MAP. This requires timely delivery of results and a functioning science-policy interface. The coordinating role of UNEP/MAP should be strengthened.

Potential support options include:

- Administrative support for the presentation of research results as side events of UNEP/MP workshops/ meetings/ conferences and on websites.
- Administrative support for the establishment and coordination of a platform for information sharing between research projects.
- Support for common publications of relevant research results with the UNEP/MAP Secretariat and other RSCs, if possible in a manner that is tailored to the needs of the RSCs.
- Administrative support for preparing and holding training workshops on relevant research results at the national level for national officials and stakeholders.
- Support for training and capacity building within UNEP/MAP to ensure that project results are taken up by UNEP/MAP in its work.
- Support enabling participation of RSC staff in the Advisory Boards and other relevant bodies of research projects to ensure that relevant information reaches UNEP/MAP.
- Support for the establishment of a pyramid structure for information dissemination, with a project coordination platform (managed or co-managed by UNEP/MAP) for exchanging information on upcoming events and research results.

MAP12-14: Additional research needs were identified relating to specific environmental issues.

These include in particular:

- MAP12: Definition of a water budget/balance of the Mediterranean
- MAP13: The role and impact of atmospheric pollution
- MAP14: Impacts of oil and gas exploration and adequate sea-bed mapping

Potential support options include:

- Administrative and financial support for meetings at regional level with country experts, research institutions and stakeholders to determine concrete topics for research in the areas

mentioned above. This could build on the experience gained with a similar approach for marine litter.

- Support for a project to update the tools needed for the definition of the water budget/balance and an expert group to prepare the actual calculations.
- A research project on the significance and impacts of atmospheric pollution.
- Support for a research project to be starting in 2015 to explore the impacts of oil and gas exploration.
- Administrative and financial support for cooperation of UNEP/MAP with the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) on sea-bed mapping.
- Administrative and technical support for gathering and examining risk analyses and mappings concerning sea-bed mapping as undertaken by companies and countries in this regard.

5 PRIORITY SUPPORT OPTIONS AND WORKPLAN

5.1 SELECTION CRITERIA FOR PRIORITY SUPPORT OPTIONS

The selection of the priority support needs identified in the previous section is mainly based on stakeholder opinion. Additionally, we excluded certain support needs which were deemed to be only of minor or even of no importance for the implementation of the MSFD. For the identification of the priority support options in this section we rely more directly - i.e. independently of stakeholder opinion - and more positively on the criterion of 'relevance for the implementation of the MSFD'. This 'positive' approach implies that we use this criterion not so much to exclude certain options (as was done in the previous section with the support needs), but rather to positively identify the priority support options.

The selection of the priority support options is rooted in a number of more general considerations:

First, the benefits of a particular support option are assumed to be particularly large if the associated support need is particularly closely associated with

- the next steps in implementing the MSFD (timing/MSFD requirements) as outlined in the Directive itself or the CIS draft work programme;
- 'critical' gaps which, if not addressed, would prevent or seriously hinder implementation of subsequent MSFD steps.

Additional factors which tend to increase benefits are:

- Areas where coherence and co-ordination at regional level or across the regional seas are tantamount. This could, for instance, be the case for
 - Increasing effectiveness through common approaches (regional ecosystems, comparability of data and assessments, indicators, targets);
 - increasing efficiency through common approaches;
 - need for co-ordination to create a "level playing field".
- Support needs which are shared by two or more RSCs;
- Gaps/needs associated with particularly pressing environmental problems;
- 'Low hanging fruits' (support option which can be realized at particularly low costs compared to other options with similar benefits).

A number of supplementary considerations could also be taken into account:

- The possibility that the European Commission contributes to the implementation of a support option;
- Expected ownership of measures: if expected ownership is low, and the CPs are not prepared to devote financial and human resources to a support option, then there is a significant risk that implementation of the respective measures will be insufficient at regional level; this is particularly relevant for RSCs with a high number of CPs which are not EU MS.
- Compatibility with RSC planning/priorities: most importantly, a lack of compatibility might cause significant political costs;
- Possibilities/options for mobilising co-funding, other resources, support etc.;
- Cost-effectiveness of the measure;
- Administrative burden associated with the measure.

However, given the scope of this project and the limited information available on these supplementary factors they hardly affected our identification of the priority support options.

5.1.1 Implementation of the selection process

To make the general selection criteria outlined above operational, we relied heavily on the draft CIS work programme (version June 2013) which devotes significant attention to the role of the RSCs in implementing the MSFD. It identifies a range of areas where the RSCs can make a timely and critical contribution to the implementation of the MSFD by enhancing regional coherence, increasing efficiency, contributing to a level playing field etc in line with the general selection criteria.

Drawing mainly on the draft CIS work programme's view of the potential contributions of the RSCs, we developed an evaluation sheet which we then used to assess each priority support need. The evaluation sheet uses a number of criteria, such as 'efficiency', 'align data flows and data needs for next round of initial assessment' or 'encouraging transfer of knowledge between different regions, joint research or twinning projects between countries or regions' (see below). We assessed the relevance of each priority support need in terms of each of these criteria. For most criteria, values from '0' (or no score) to '2' were assigned for each criterion, with '0' denoting no relevance/low contribution of the priority support need, '1' indicating indirect or relatively small relevance/contribution and '2' denoting strong relevance/contribution. Only for the criterion 'common need' we also used a score of '3' which indicates that at least three RSCs stated very similar needs. A score of '2' indicates similar needs of two RSCs, '0' (or no score) that there is no common need. It was not possible to score '1' in this case.⁹

More specifically, the following criteria were used for this assessment:

- Common need
- Coherence
- Efficiency
- Joint (coordinated) monitoring
- Common GES criteria, targets, indicators, methodological agreements
- Revised initial assessment and review of GES and target requirements
- Concept for sharing data and information between EU/EEA, ICES and RSCs
- Align data flows and data needs for next round of initial assessment
- "Roof report"
- Joint (coordinated) programme of measures
- Valuation of ecosystem services, assessment of cost of degradation etc.
- Identification of cost-effective measures of a transboundary nature
- Identification of regional short-, mid- and long-term research needs, incl. scientific advice from ICES etc.
- Encouraging transfer of knowledge between different regions, joint research or twinning projects between countries or regions
- Enhance RSCs capacities to contribute to EU level processes, in particular the CIS
- Other

Based on this assessment we selected the priority support options. More specifically, the six or seven highest scoring priority support needs/options were selected for each RSC (See Annex 1 for the respective tables/scores). An alternative approach would have been to select the highest ranking needs/options without taking into account to which RSC they apply. However, the total scores suggest that the needs/options identified for HELCOM and OSPAR correspond much more closely to the selection criteria (and hence the CIS draft workplan) than those identified for the BSC and UNEP/MAP. Consequently, this approach would have led to the identification of priority support options which mainly concern HELCOM and OSPAR.

⁹ With this scoring system we weighted the criterion 'common need' slightly stronger than the other ones because we felt that if a need was common, it was likely to be particularly important and that opportunities for cooperation among RSC and increasing cross-regional coherence tended to be bigger.

5.2 PRIORITY SUPPORT OPTIONS

5.2.1 Assembling priority support options

The selection process outlined above led to the identification of 26 priority needs/options. For the purpose of creating the workplan for the implementation of the priority support options we grouped the options into tasks, work-packages and projects according to substantive focus. This exercise revealed that the by far largest group of priority support options concerns integrated monitoring and assessment. This is followed by a cluster focusing on data collection and reporting and, third, a small group of priority support options concerning the development of regional programmes of measures.

These three clusters form the three projects which are presented in more detail below. Depending on the size of the projects they are subdivided into work packages, tasks and support actions (Project 1 on integrated monitoring and assessment); work packages and support actions (Project 2 on data collection and reporting) or only support actions (Project 3 on developing regional programmes of measures). The support actions are usually specific to a particular RSC while the tasks and work packages may span different RSCs.

5.2.2 Project 1: Integrated monitoring and assessment

WP1: Extending/improving integrated monitoring and assessment

Task 1.1: System review and design

Support actions include the following:

- Establishment of an integrated monitoring and assessment system (BSC1 and 3)

Coordination:

- The initiation of a project for consultancy and coordination during the preparation phase of the Member States' monitoring programs and the integration of different monitoring requirements under other directives, such as the WFD.
- Exchange of information with other RSCs on setting up integrated assessment and monitoring systems.

Capacity building:

- Better integration of the monitoring and assessment results into the work of the BSC by addressing the lack of relevant personnel (especially scientific officers).
- Development of a scheme for assessing and monitoring wider biodiversity status at the ecosystem scale beyond protecting individual species and habitats or specific sites (OSP1)

Coordination:

- One or two expert workshops to explore the best way forward, for example in terms of the different approaches mentioned above (pressures, functional components, balance and comprehensiveness);
- A workshop to explore the availability of relevant data, for example in cooperation with the Directorate General for Maritime Affairs and Fisheries (DG MARE), who are increasing their surveillance of relevant human activities, and the European Marine Observation and Data Network – EMODNET, concerning pressures.

Research:

- An external project providing research and technical support for ICG-COBAM supporting the further development and implementation of the chosen approach, for

example with respect to the development of methods of assessing cumulative pressures and impacts and of assessing ecosystems.

- A project to support testing of monitoring protocols regarding ballast water in harbors;
 - A research project to assess the risk of new species introductions through ballast water and to develop a method to formulate target species lists.
- Exchange of information with other RSCs on setting up integrated assessment and monitoring systems (e.g. HELCOM holistic assessment tool) (BSC1)

Potential support options include:

Coordination

- Setting up an integrated platform among RSCs on monitoring.

Capacity building

- Capacity building and training through an expert workshop with other RSCs on monitoring and assessment experience, best practice and lessons learned.
- Implementation of the integrated and targeted monitoring programme in third countries (MAP3)

Coordination

- Technical and administrative support for the preparation of harmonized national reporting fact sheets in cooperation with WG DIKE.

Capacity building

- Capacity building and training workshops relating to the individual needs of the third countries in 2015-2017. The workshops should include representatives from the specific countries and other RSCs who can share best practice, experience and knowledge related to the particular issues identified.

Research

- Technical and administrative support for a review of the UNEP/MAP capacity building programme based on specific third country needs for implementing training on the integrated monitoring programme (presented in September 2013) and identification of specific needs for the individual countries.

Task 1.2: Improved and harmonised monitoring of loads and pressures (HEL3)

Support actions include the following:

Cooperation

- Administrative and financial support for organizing a regional workshop involving experts, CP representatives and other relevant stakeholders to discuss and develop options for harmonization.
- Cooperation with OSPAR and, potentially, other RSCs. OSPAR has considerable experience with hazardous substances and, conversely, could itself benefit from HELCOM experience with nutrients. Cooperation on ballast water could build on the ongoing co-operation with OSPAR in this area.

WP2: Targets and indicators

Task 2.1: Developing targets

Support actions include the following:

- Adoption of additional regional targets in a range of areas, relating both to environmental conditions and to human pressures (HEL7).

Cooperation

- Workshops focusing on the individual areas to discuss different types of targets, their feasibility and requirements and potential effectiveness, including relevance in terms of GES boundaries. In particular for the targets relating to human pressures, the workshops should involve relevant sectoral/ economic actors in addition to RSC and CP representatives and experts. The workshops could build on existing HELCOM initiatives and cooperation, such as in the area of fisheries HELCOM's Fisheries and Environment Forum (HELCOM FISH/ENV) forum and the ongoing cooperation with ICES.
- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/ OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience.
- Enhanced cooperation between the BSC CPs in the target and GES setting process to develop joint targets and GES (BSC11)

Cooperation

- One or two regional workshops on revising existing targets and establishing the areas where targets are missing. The same process can be applied in relation to GES.
- Expert workshops aiming to identify the exact BSC's support needs in each of these target/GES areas.
- As a follow-up of the workshop, establishment of a working group to align the existing targets and defining missing targets, as well as a working group on GES.

Capacity building

- Providing financial assistance for the target setting process at the national level.

Research

- Technical support to prepare fact sheets outlining the relevant and missing information in each area.
- Technical assistance project(s) to identify areas where the BSC should take the lead in developing/coordinating proposals for targets.

Task 2.2: Developing indicators

Support actions include the following:

- Development of additional regional indicators, relating to environmental state and human pressures, in particular biodiversity, marine litter and underwater noise (HEL9)

Cooperation

- Building, among other things, on the report 'HELCOM core indicators: Final report of the HELCOM CORESET project' which assesses the set of common HELCOM core indicators, workshops focusing on the individual areas to discuss different types of indicators, their feasibility and requirements and potential effectiveness, including relevance in terms of GES boundaries.

Capacity building

- Administrative and technical support for continuation/intensification of ongoing HELCOM CORSET/ OSPAR ICG-COBAM cooperation in this area to promote exchange of best practice and experience and identify areas where common indicators

could be adopted.

- Definition of threshold values and reference conditions as well as defining GES at indicator level (MAP9)

Cooperation

- Establishment of environmental assessment criteria (EAC), background concentrations, reference conditions and threshold values through additional Integrated GES Correspondence Group meetings with experts from all three clusters, giving their recommendations to the upcoming monitoring and assessment work. Funding is partially available for this.

Capacity building

- Further support for the existing work of the Integrated GES Correspondence Group (meetings already financed).
- Training workshop including experts from other RSCs sharing their expertise and knowledge regarding environmental assessment criteria.
- Identification of indicators which should be common for HELCOM and OSPAR (OSP9)

Coordination

- One or two common HELCOM/OSPAR workshops to discuss the work of the technical assistance project and build agreement between HELCOM and OSPAR on a set of common indicators.

Research

- A technical assistance project to develop criteria and identify and propose a number of indicators which should be common to HELCOM and OSPAR.

WP3: Data gathering and assessment methods

Task 3.1: Improvement of common data gathering methods

Support actions include the following:

- Development/revision of joint methods for sampling, analyses, data storage and quality assurance (HEL1)

Capacity building

- Administrative and financial support for organizing regional workshops involving relevant CP and other experts to share best practice.
- Administrative, technical and financial support for training sessions on monitoring practices and methods, including sampling, analyses, data storage and quality assurance, involving relevant CP, RSC and EU experts.
- Financial support for some CPs (Eastern Baltic) to adapt the physical infrastructure, e.g. lab (sampling and analytical) equipment.

Research

- A research project comparing different monitoring programmes and assessment results by scientific standards.
- Streamlining methodologies and data collection and ensuring compatibility with new data storage and assessment requirements (MAP7)

Cooperation

- Preparation of harmonized reporting national fact sheets in cooperation with WG DIKE.
- A workshop involving all RSCs on the options and prospects of coordinated data management.

Capacity building

- Technical support for the development of common data collection and reporting formats throughout the region.
- Support for a pilot cooperation project with two RSCs looking at one specific issue; and subsequently setting up an expert group to foster exchange of experience.
- Foster the ongoing involvement of the CPs in CIS work through training workshops in the Member States.

- Improvement of data comparability (BSC16)

Coordination

- A technical support project exploring the reasons why data is not comparable and possible solutions.
- A workshop involving all RSCs, the European Commission, the European Environmental Agency (EEA) and other relevant entities on the options and prospects of co-ordinated data management.

Capacity building

- Technical support to create a well-structured and clear data base which facilitates comparisons and overviews.

Task 3.2: Improving assessment of cumulative impacts (MAP5)

Support actions include the following:

Coordination

- Expert workshop focusing on methods of cumulative impact assessment.

Capacity building

- Technical workshop and training on using relevant monitoring tools and equipment.

Task 3.3: Socio-economic assessment of impacts and pressures

Support actions include the following:

- Development of assessment methods for socio-economic impacts of marine litter (OSP2)

Cooperation

- Expert workshop focusing on methods of socio-economic assessment.
- Preparation and coordination of socio-economic assessment compatible with MSFD requirements (MAP6)

Capacity building

- Two training workshops for relevant RSC and CP officials focusing, respectively, on socio-economic assessment of the use of the Mediterranean Sea and on determining the cost of degradation of the marine environment. This should be organized in co-operation with experts on socio-economic assessment of the Mediterranean and economic valuation of the degradation of the marine environment.

Research

- One or more research projects conducting pilot socio-economic assessments in EU CPs which make a significant contribution to the countries' obligations under the MSFD.
- One or more “demonstration” research projects developing examples of the socio-economic benefits of achieving GES in major non-EU CPs.

5.2.3 Project 2: Data collection and reporting

WP1: Developing regional “roof reports”

Support actions include the following:

- Reporting at the HELCOM regional level (HEL6)

Coordination

- Workshops involving relevant staff of the HELCOM secretariat, the Commission and CPs to discuss the detailed conditions and requirements of producing HELCOM ‘roof reports’ on monitoring programmes (planned for 2014), PoMs and the 2018 Assessment (HELCOM report planned for 2017) which comply with the reporting requirements of the MSFD and cover a significant share of MS’s reporting obligations.

Capacity building

- Administrative and technical support to develop reporting sheets, gather and analyse information and provide draft input for the ‘roof reports’. As a first step - and related to assessment – the approach could be developed for, and applied to, a more limited field, for example the production of a new HELCOM maritime assessment or the planned (for 2015/first half of 2016) biodiversity assessment.
- Production of OSPAR regional roof reports (OSP15)

Capacity building

- Technical and administrative support project to assist OSPAR in the preparation of the roof reports by compiling and analyzing information and preparing draft texts. However, in particular with respect to the programmes of measures, the role of OSPAR still appears to be somewhat uncertain.
- Drafting of “roof reports” on monitoring programmes and programmes of measures (BSC4)

Coordination

- Preparation of harmonized reporting national fact sheets in cooperation with DIKE.

Capacity building

- Technical and administrative support project to assist the BSC in the preparation of the roof reports by compiling and analyzing information and preparing draft texts.

WP2 Adaptation and improvement of data sharing platforms

Support options include the following:

- Adaptation of common data sharing platforms (MEDPOL) to new monitoring requirements (MAP8)

Capacity building

- Technical support for the development of a user-friendly portal for data entry using standard data formats (e.g. new MEDPOL Info System).
 - A project providing technical assistance with the development of data management strategies.
- Improvement, modernization and making operational of web-based OSPAR data bases (OSP12)

Capacity building

- Capacity building and training programmes potentially also involving ICES in relation to data infrastructure and systems to allow RSCs to take the lead in making available regional data and information resulting from assessments and monitoring. This needs to be co-ordinated with the financial and other assistance which CPs provide to improve data and information management, including the development of a web-based interface and visualization.
- Improvement of data systems and infrastructure to make regional-level data more easily accessible (HEL13)

Coordination

- Workshops to discuss and assess information system needs, develop data management strategies, and identify options to improve data presentation, accessibility and user-friendliness. This should be coordinated, in particular, with HELCOM CORSET II which is responsible for the operationalisation of the common HELCOM core indicators.

Capacity building

- Financial support for the modernization and extension of the HELCOM data infrastructure to allow HELCOM to deal with the additional data and information associated with, among other things, the adoption of new indicators and to improve accessibility of information, for example by integrating the HELCOM online Pollution Load User System (PLUS) into the Map and Data Service.
- Improvement of data coordination and sharing (BSC15)

Coordination

- Technical assistance relating to the preparation of data fact sheets for individual targets and GES.

Capacity building

- Technical support to set up a database for sharing data and information on regular annual reports of the BSC CPs.
- Technical support to set up a database containing information on past and current projects in the Black Sea.
- Technical support for the development of a website presenting information in a transparent and easily accessible way.
- Addressing existing IT gaps relating to equipment and dedicated staff in the Black Sea Commission's Permanent Secretariat.

WP3 Support to develop and apply new data collection tools

Support options include the following:

- Support to develop and apply new methods of monitoring e.g. ferry boxes, moorings and buoys and airborne surveillance (MAP4)

Cooperation

- Workshop to exchange experience on new methods with other RSCs.
- Cooperation with the European Environmental Agency (EEA), for example on a research project relating to the cumulative impacts, and/or determination of monitoring characteristics and tools.
- An expert workshop on standardizing methods to assess the effectiveness of ferry boxes, moorings and buoys and airborne surveillance for assessing cumulative impacts of different sources.

Research

- Support for a pilot project in one specific region testing the new methods developed.

5.2.4 Project 3: Developing regional Programmes of Measures

Support options include the following:

- Development of a HELCOM joint Programme of Measures covering transboundary pressures (HEL12)

Cooperation

- Workshops to discuss proposed common measures with a broader range of CP officials from different government agencies, NGOs and economic stakeholders from different sectors.

Capacity building

- Administrative and technical support project to support HELCOM with drawing up the programme, identification, assessment - including socio-economic - and discussion and development of potential common measures.
- Clarifying the involvement of OSPAR in the development of the PoMs and to identify concrete topics on which OSPAR should take the lead (OSP17)

Cooperation

- Regional workshop to discuss the potential role of OSPAR with respect to the development of the PoM and to identify areas where OSPAR should take the lead;

Research

- Technical assistance project to identify areas where OSPAR should take the lead in developing/coordinating proposals for measures.

5.3 WORKPLAN FOR IMPLEMENTATION OF PRIORITY SUPPORT OPTIONS

The workplan for the implementation of the priority support options, which is presented in the two tables below, is based on the three projects. It presents suggestions for the timing, and estimates of the duration, of the individual priority support actions, and, building on this, of the projects as a whole and, if applicable, the work packages and tasks.

The suggestions for the timing take into account the timetable for the implementation of the MSFD according to the Directive itself and, as far as the RSCs are concerned, also according to the more detailed information contained in the draft CIS workplan. While the projects, work packages and tasks can be found in the upper half of the workplan tables below, the timetables for the national implementation of the MSFD and for the RSCs can be found in the lower half.

The estimates for the duration of the support actions are based on the suggested concrete activities, such as holding (and preparing, summarising) a workshop, providing administrative and technical support or conducting a research project. However, as the concrete implications and requirements of most of the activities would have to be worked out in more detail, the estimates of their duration necessarily remain very preliminary.

It should be noted that - with the exception of support for the preparation of 'roof reports' - the suggested/estimated timing of the priority support options does not extend beyond early 2017. This seems to be largely due to the fact that after the entry into force of the PoMs at the end of 2016, the preparations for the next cycle will start (revised initial assessment etc.). Although realistically speaking much work will still be left to be done at this stage, ideally all tasks (except implementation of the PoMs) should be completed by then. This is probably an important reason why it was difficult to identify - mainly based on interviews with RSC and MS stakeholders - priority support needs beyond this date.

As a consequence of the concentration of the large majority of support options in the period up to 2017, there could be a risk that RSC may not be able to fully 'absorb' support at certain times of particularly high support activity, such as in the second quarter of 2015. However, a future consideration of the details of the various priority support options would likely allow for some temporal adjustment of the workplan to preempt any 'absorption' problems.

WORKPLAN FOR IMPLEMENTATION

Projects 2 and 3	2014				2015				2016				2017				2018					
	quarter	year	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PROJECT 2: DATA COLLECTION AND REPORTING																						
WP1: Developing regional 'roof reports'																						
Strengthening of reporting at the HELCOM regional level, HEL6																						
Support for production of OSPAR 'roof reports'; OSP15																						
Support for drafting of BSC monitoring and PoM 'roof reports'; BSC4																						
WP2: Adaptation of data sharing platforms to new requirements																						
Adaptation of common data sharing platforms (MEDPOL); MAP8																						
Modernisation and operationalization of OSPAR online data bases; OSP12																						
Improve data systems to make regional data more easily available; HEL13																						
Improvement of data coordination and sharing; BSC15																						
WP3: Support to develop and apply new data collection tools																						
Support for using ferry boxes, moorings, airborne surveillance etc, MAP4																						
PROJECT 3: DEVELOPING REGIONAL POMS																						
Supporting development of a HELCOM joint PoM; HEL12																						
Clarifying and supporting OSPAR contribution to PoMs; OSP17																						



Member State MSFD milestones:	July: monitoring programme			July: draft rev. IA, GES, targets	July: rev. IA, GES, targets
			By 2015: PoM established	By 2016: entry into operation of PoM	



Regional Seas Convention MSFD milestones (source: draft CIS workplan of June 2013):	July: Joint (coordinated) monitoring			July: rev. regional initial assessment, GES, targets	
	Early 2014: Regional GES criteria	Late 2014: input rev. GES Decision; agreement data sharing EU/EEA etc	By 2015: Joint (coordinated) PoM	By 2016: agree data flows and needs for rev. initial assessment	