

THE KEY TO GOVERNING THE FRAGILE BALTIC SEA

Maritime Spatial Planning in
the Baltic Sea Region and Way Forward

THE KEY TO GOVERNING THE FRAGILE BALTIC SEA

Maritime Spatial Planning in
the Baltic Sea Region and Way Forward

Author: Jacek Zaucha

Chapters 3 and 4 of the book are based on the outcomes of the EU co-funded project Plan Bothnia (MARE 2009/16), the component 5.2.4 "Region-wide recommendations on minimum requirements for MSP systems".

The preparation and publication of this book was financed by the VASAB Committee on Spatial Planning and Development of the Baltic Sea Region (CSPD/BSR). Its content is the sole responsibility of the author and does not reflect the opinion of VASAB or the members of the VASAB CSPD/BSR.

Layout and design: "E FORMA" LTD

ISBN 978-9934-14-165-2

© 2014, VASAB Secretariat

Further information and distribution:

VASAB Secretariat

Elizabetes str. 19, Riga, LV-1010, Latvia

Phone: +371 67350630

Fax: +371 67350626

E-mail: info@vasab.org

Twitter: [@VASAB_org](https://twitter.com/VASAB_org)

Web: www.vasab.org



Printed in Latvia on environmentally friendly
paper certified by FSC, May 2014



THE KEY TO GOVERNING THE FRAGILE BALTIC SEA

**Maritime Spatial Planning in
the Baltic Sea Region and Way Forward**

Jacek Zaucha



Jacek Zaucha

PhD holder in economics, professor of the Maritime Institute in Gdańsk and the University of Gdańsk

Zaucha

About the author:

Jacek Zaucha is a PhD holder in economics, professor of the Maritime Institute in Gdańsk and the University of Gdańsk, member of the VASAB Committee on Spatial Development of the Baltic Sea Region (1994–1996) and Deputy Secretary of the VASAB cooperation (1996–2006), main author of the first maritime spatial plan in Poland, member of the team formulating the "Concept of the Spatial Development of Poland" – "National Spatial Development Concept", member of the drafting team for the update of "The Territorial State and Perspectives of the European Union" and revision of the "Territorial Agenda of the European Union", author of 105 scientific publications in the field of supranational spatial planning and development, European Union structural/cohesion policy, Baltic Sea Region integration and cooperation and maritime spatial planning.

Acknowledgements:

The chapter of the book on good practices is the result of discussions under the BaltSeaPlan and BaltCoast projects. I would like to express my gratitude to their participants, in particular those who devoted a significant part of their professional life to the introduction of the idea of maritime spatial planning (MSP) to the Baltic Sea Region: namely, to Bernhard Heinrichs (former Head of Spatial Planning in Mecklenburg-Vorpommern), Andrzej Cieslak (Polish Maritime Administration) and Angela Schultz-Zehden (S.Pro). I am extremely pleased for their comments that considerably improved this book. I have always admired their efforts for the cause of MSP, as well as devotion and determination to turn MSP into reality. The part of the book on MSP in Russia was elaborated by Andrey Lappo (Андрей Дорофеевич Ланно) the General Director of the JSC Research and Design Institute of Urban Development in St. Petersburg while with the Lithuanian case I was assisted by Nerijus Blažauskas from the Coastal Research and Planning Institute (CORPI) at Klaipeda University. The part on minimum requirements is based on the work of Kira Gee and Bernhard Heinrichs, and in the project descriptions I have used the text drafted by Angela Schultz-Zehden. I am grateful to these authors for their collaboration and consent to contribute their intellectual property. I am equally grateful to Charles Ehler, who inspired me with a lot of deep thoughts on MSP and to Andrea Morf, who introduced me to and guided through the wonderland of the ecosystem approach. I also want to express my appreciation to VASAB for offering me an excellent forum for discussing MSP and related issues. Finally, I wish to acknowledge the important role of two people thanks to whom I started research on MSP six years ago: Leonard Gajewski and Magda Matczak from the Maritime Institute in Gdańsk. Late Leonard Gajewski brought MSP to the research agenda of the Institute, and I am grateful to him for this visionary and strategic decision and for charging me with the task to push forward the issue in the Baltic context. Magda Matczak has supported me by her constant understanding, wise advice and critical evaluations of my texts since the beginning of my work on MSP. She has also inspired me with excellent diagrams, schemes and figures.

Dedication: to my godmother Iza whom I admire for being tireless and full of energy like the sea.

Table of Content

Introduction 4
1. Origin and Development of Maritime Spatial Planning in the Baltic Sea Region 5
1.1. Foundations of maritime spatial planning 5
1.2. Ecosystem services in maritime spatial planning 7
1.3. Baltic Sea Region as a pioneer in maritime spatial planning in Europe. The role of VASAB 11
1.4. Maritime spatial planning in the Baltic Sea Region. Projects and plans 23
2. Baltic Sea Broad-scale Maritime Spatial Planning Principles 47
3. Baltic Sea Good Practices in Maritime Spatial Planning 51
3.1. Stakeholder involvement 55
3.2. Methodology for strategic environmental assessment for maritime spatial plans 58
3.3. Coping with information gaps 61
3.4. Baltic Sea Region data model 62
3.5. Regional strategy and vision 67
3.6. Conscious inventory and acquisition of information relevant to maritime spatial planning 69
4. Minimum Requirements for Transboundary Maritime Spatial Planning in the Baltic Sea Region 73
4.1. Minimum requirement I: A common understanding of key principles 75
4.2. Minimum requirement II: Legal provisions and institutions 76
4.3. Minimum requirement III: The planning process and content of the plan 79
4.4. Minimum requirement IV: Learning and training 86
5. Conclusions and Way Forward 89
5.1. Future oriented conclusions based on good practices and minimum requirements 89
5.2. Possible directions of development of the Baltic maritime spatial planning 92
References 103
List of key acronyms 108

Introduction

This book provides an introduction to the origin, evolution and the current state (up till January 2014) of the maritime spatial planning (MSP) in the Baltic Sea Region (BSR) and proposals for its further development. The largest part of the book has been produced owing to the Plan Bothnia project run by the Helsinki Commission (HELCOM)¹ and in co-operation with Vision and Strategies around the Baltic Sea (VASAB)². The project³ (executed in 2011 and 2012) has tested transboundary MSP in the Baltic Sea using the Bothnian Sea area between Sweden and Finland as a case study. Moreover, an indispensable part of the project was also the collection of good practices on transboundary MSP in the BSR (described in Chapter 3 of this book) and preparation of draft minimum requirements for MSP systems in order to ensure minimum level of synergy and compatibility and the transboundary character of national MSP initiatives in the BSR (presented in Chapter 4). Those findings were used for fuelling broader political discussions within HELCOM and VASAB framework. The work on minimum requirements and on good practices, therefore, was the first impulse for drafting this book. However, while engaging in those tasks, it became clear that the good practices and minimum requirements should be rooted in the MSP development process. Consequently, the Baltic MSP development mechanism has been analysed and presented in Chapter 1 of this book together with some key foundations of MSP such as Baltic Sea Broad-scale Maritime Spatial Planning Principles (described in Chapter 2) referred later on as HELCOM-VASAB MSP principles.

The above analysis has prompted the author to think about future, namely, the way forward for Baltic MSP that is presented in Chapter 5. The first part of Chapter 5 (Chapter 5.1) is devoted to future-oriented conclusions and is based on the analysed good practices and minimum requirements. This is only an extended foresighted summary of Plan Bothnia findings. The second part is a more general reflection on the different possible scenarios for MSP development in the BSR (Chapter 5.2). These are the author's own reflections not shared or endorsed by VASAB, HELCOM or other official bodies. Although the ideas presented in Chapter 5.2 have their origin in the processes induced by VASAB and HELCOM, they reflect private views of the author of this book and are presented for inspiration purposes only. By no means should they be treated as having any formal support or ambition to directly influence policy development.

¹ HELCOM, i.e. the Helsinki Commission is the executive body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, done at Helsinki on March 22nd 1974. In 1992 this agreement was replaced by a Convention of the same name, also done at Helsinki – on April 9th 1992. The main task of the Helsinki Commission is to protect the marine environment of the Baltic Sea from all sources of pollution. HELCOM takes form of the intergovernmental cooperation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

² VASAB (Vision and Strategies Around the Baltic Sea) was launched in 1992 by the ministers responsible for spatial planning and development in 11 BSR countries (German *Länder* Mecklenburg-Vorpommern and Schleswig-Holstein and Kaliningrad oblast as well as the city St. Petersburg of Russia were also among the VASAB founders) as one of the first pan-Baltic cooperation networks created after the fall of the iron curtain. VASAB is an intergovernmental cooperation providing a ministerial platform and expert network for Baltic Sea Region countries to coordinate spatial planning and development. It is guided by the Conference of Ministers and steered by the Committee on Spatial Planning and Development of the Baltic Sea. More information can be found at www.vasab.org.

³ It was a Baltic Sea MSP "preparatory action" funded by EU Commission, DG MARE.

CHAPTER 1: ORIGIN AND DEVELOPMENT OF MARITIME SPATIAL PLANNING IN THE BALTIC SEA REGION

1.1. Foundations of maritime spatial planning

In a nutshell, maritime spatial planning is about creating new opportunities for economic growth and job creation in Europe, while safeguarding the marine biodiversity and cultural heritage that our seas provide. (EC 2010:4)

As indicated by many scholars (for details cf. Zaucha 2009:8; 2012a: 460) Maritime Spatial Planning (MSP) – spatial planning of the sea areas – is a concept which relatively recently came to the attention of spatial planners and decision makers responsible for spatial management and development. The first plan regulating the use of marine areas was elaborated in Australia as early as in the mid-80s (Lawrence *et al.* 2002; Great Barrier Reef Marine Park Authority 2004; Day 2002) but the real breakthrough took place, at least in Europe, only in the recent decade. From its very start the process of MSP development was fast, rich and intensive (of a snowball character), and the BSR was among the most active forerunners in terms of MSP enhancement and practical advancement.

Twenty years ago MSP was hardly known in Europe among spatial planners. Sea space was mentioned neither in the study documents *Europa 2000* (EC 1991) and *Europa 2000+* (EC 1994), nor in the policy documents such

Key Principles Emerging from Maritime Spatial Planning Practice elaborated by European Commission*

1. Using MSP according to area and type of activity
2. Defining objectives to guide MSP
3. Developing MSP in a transparent manner
4. Stakeholder participation
5. Coordination within Member States – simplifying decision processes
6. Ensuring the legal effect of national MSP
7. Cross-border cooperation and consultation
8. Incorporating monitoring and evaluation in the planning process
9. Achieving coherence between terrestrial and maritime spatial planning – relation with ICZM
10. A strong data and knowledge base

*Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU. Brussels: European Commission, COM (2008) 791

as *European Spatial Development Perspective* (ESDP 1994) or the *Territorial Agenda of the European Union* (TA 2007). In the TA 2007 background document – the report entitled *The Territorial State and Perspectives of the European Union* (TSP 2007), in spite of the efforts of the BSR countries, MSP appeared only in two places (the laconic Paragraph 130 and as a brief mention in Paragraph 173) in the context of reference to the Integrated Maritime Policy of the EU and to Integrated Coastal Zone Management. Still, the first decade of the 21st century became a turning point for conceptualisation of the sea space management.

The critical mass necessary for start-off was achieved when spatial planners were joined by people responsible for marine affairs. The main credit for Europeisation⁴ of MSP should be given to UNESCO and to the European Commission. The Directorate-General for Maritime Affairs and Fisheries (DG Mare) came up with the EU Green Book (EC 2006), and then the Blue Book on Integrated Maritime Policy (EC 2007), supplied with a comprehensive Action Plan (EC 2007a) triggering the process of the extension of spatial planning in EU countries in the offshore direction. The European Commission considered MSP as one of three key cross-cutting instruments of integrated maritime policy beside a comprehensive and accessible source of data and information and the maritime surveillance that has been regarded as critical for the safe and secure use of maritime space. The European Commission acknowledged that MSP should aim at balancing frequently competing sector-based interests, so that:

- marine space and resources are used efficiently and sustainably;
- decisions can be taken based on sound data and in-depth knowledge of the sea;
- investors have greater legal certainty, encouraging economic development.

In the Action Plan (EC 2007a) the MSP was described as a key planning instrument that has been identified as a suitable tool for integrated maritime policy development. Integrated MSP across EU waters was considered as a fundamental requirement for the continued sustainable development of maritime economic activities, as a neutral tool to arbitrate between conflicting or competing activities or interests. The degree of the success of MSP, namely, the amount of benefits MSP will yield, however, was considered as dependent upon the compatibility and comparability of national systems, and the ability of states to learn from each other's experiences. Since MSP remains a prerogative of individual EU countries, while the planning efforts of the neighbouring states should add up to the harmonised basin-wide perspective, the European Commission proposed common MSP principles in order to avoid conflicts and support cross-border cooperation and investments. The principles formulated in the aforesaid Roadmap (EC 2008) also aim at ensuring that national, regional and local maritime spatial plans becoming coherent. The principles provide a common denominator for different MSP initiatives undertaken by the EU member states and regions. The principles are to ensure that national, regional and local maritime spatial

plans are prepared in collaboration between neighbouring states and with important stakeholders (also in cross-border settings) at least within the sea basin areas. Those principles prompted to some extent the VASAB work on the minimum requirements described in Chapter 4 of this book.

Almost in parallel UNESCO experts published a series of seminal scientific papers on MSP and complemented EU efforts with the well-known manual on MSP (Ehler and Douvère 2007; 2007a; 2009; 2010; 2010a; Douvère and Ehler 2008; 2009; Douvère 2008; Ehler 2010). In 2010 the MSP concept found its way to the European spatial planning textbooks and monographs such as the groundbreaking work of Dühr *et al.* 2010. Due to that, the idea of the MSP was included in many important European spatial documents such as an updated *Territorial Agenda of EU* (TA 2011) and its background report *The Territorial State and Perspectives of the European Union* (Damsgaard *et al.* 2011).

4 For explanation of the meaning of the concept of Europeisation of spatial planning please see Dühr *et al.* 2007:295-296.

Maritime activities are essential for territorial cohesion in Europe. Economic activities such as energy production and transport are increasing rapidly in European marine environments. There is a need to solve user conflicts and balance various interests by cooperation in maritime spatial planning. The Marine Strategy Framework Directive and EU Integrated Maritime Policy calls for coordinated actions from Member States on maritime spatial planning. Such planning should be integrated into the existing planning systems to enable harmonious and sustainable development of a land-sea continuum. (TA 2011:10)

The European Commission also sustained the momentum by elaborating and/or financing the preparation of numerous evidences of different character (studies, surveys, strategies, roadmaps) and launching important initiatives related to MSP that promoted the concept and paved the way for its implementation by the member states (EC 2008; 2010; 2011; MRAG 2009; PRC 2010a). One of the most important initiatives is an *European Marine Observation Network – EMODNET*, that is, a network for the observation and storage of marine data.

1.2. Ecosystem services in maritime spatial planning

Important contribution content-wise to the development of MSP has been also provided by ecological and environmental researchers and professionals. They furnished MSP with a concept of 'ecosystem services' linking in a comprehensive way sea uses and the protection of marine environment (Garpe 2008). Also the EU Marine Strategy Framework Directive – MSFD⁵, adopted in 2008, referred to spatial protection measures as crucial for the achievement of the objectives of good environmental status of marine ecosystems, by that starting a dialogue between spatial planners and environmental authorities and experts on the application of the MSP for that purpose⁶.

Ecosystem services are defined as functions and processes through which ecosystems, and the species that they support, sustain and fulfil human life. Ecosystem services are essential to society, both to maintain human health and economic activities. (Garpe 2008:14)

The attractiveness of this approach stems from addressing under one comprehensive setup both natural and anthropogenic processes, that is, treating human beings as integral part of the ecosystem. The MEA⁷ (2005) classification subdivides ecosystem services into supporting services (e.g. nutrient cycling, soil formation, primary production), regulating services (e.g. climate regulation, flood regulation, water purification), provisioning services (e.g. food, fresh water), and cultural services (e.g. aesthetic, spiritual, recreational and other non-material benefits) (see Fig. 1). Other typologies of ecosystem services are also present in the literature. Important considerations have been brought e.g. by Fisher and Turner (2008). They examined differences between ecosystem services and benefits and made distinction between intermediate services, final services and benefits (Fig.2). According to this classification, the benefits are related to the involvement of human beings since they mean change in human well-being owing to use of ecosystems. Thus the ecosystem processes can be considered as ecosystem services only if there are somewhere final recipients of the benefits provided by those processes. Final services affect human welfare directly, while intermediate services affect such welfare indirectly (Boyd and Banzhaf 2007; Boyd and Krupnick 2009). "Final ecosystem services are components of nature, directly enjoyed, consumed, or used to yield human well-being" (Boyd and Banzhaf 2007:619). As pointed out by Boyd and

5 Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008.

6 However, one should be aware that MSP alone is unable to secure successful implementation of the Directive as it will be described in the minimum requirements No I.1 in Chapter 4 of this book.

7 This stands for Millennium Ecosystem Assessment explained in the footnote in Chapter 5.

The role and tasks of MSP according to the European Commission*

Maritime Spatial Planning is a tool for improved decision-making. It provides a framework for arbitrating between competing human activities and managing their impact on the marine environment. Its objective is to balance sectoral interests and achieve sustainable use of marine resources in line with the EU Sustainable Development Strategy.

*Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU. Brussels: European Commission, COM (2008) 791

Banzhaf (2007), the final ecosystem services mean a quantity to be paired with a price (value). An example can be a water body as an intermediate ecosystem service for anglers, fish stock inhabiting those waters as a final ecosystem service and satisfaction of anglers as the final benefit (based on Boyd and Banzhaf 2007:621). Another example can be the absorption of nutrients by the sea. Also in this case, a water body and related water processes can be treated as intermediate services, the nutrients absorbed and high quality of bathing waters as final services, whereas savings related to investment into water purification plants on shore, satisfaction of bathers, crops produced on the lots close to the rivers (that is, buffer zones) as benefits.

The concept of ecosystem services reveals the importance of the proper planning and management of the sea space for human well-being in a long-term perspective. The majority of the sea uses are interrelated and affecting each other. The concept of ecosystem services underlines the complexity of the use of the sea space and vulnerability of the sea as an environmental capital or environmental resource.

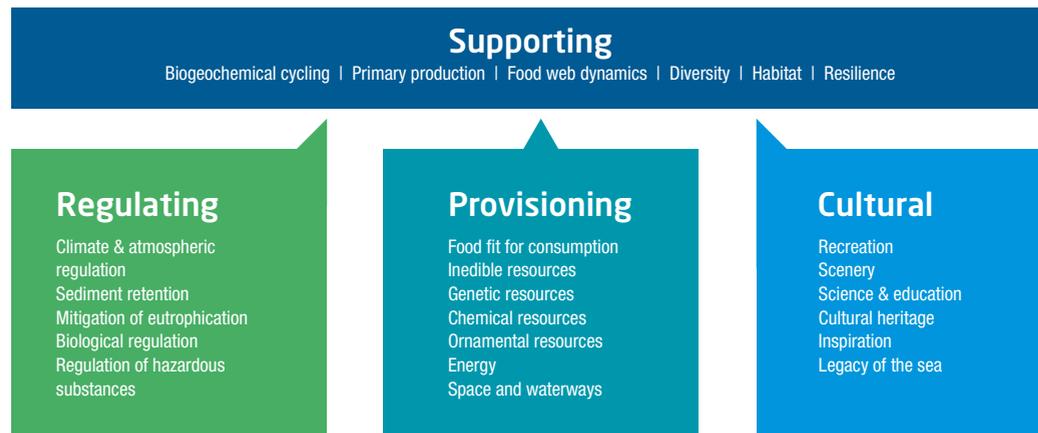


Figure 1. Ecosystem services

Source: redrafted from Garpe 2008:26.

Sea space is necessary, first of all, for securing provisioning and cultural services. But it also provides important regulating and supporting services, for instance, sediments absorb nutrients and filtrate water. The same is done by river estuaries or sandy beaches. Blue corridors secure food web dynamics. Many habitats depend directly on the sea bottom characteristics – the so called marine landscapes (for details see Al-Hamdani and Reker 2007). Lack of certain habitats might change the entire structure of the sea fauna, the chemical composition of sea water and its primary production.

However, as pointed out by Garpe (2008), there are important knowledge gaps in research on ecosystem services. By giving spatial interpretation to those observations one can conclude that spatial aspects of functioning of the sea ecosystem and its ability to provide ecosystem services still require intensive research. Particular knowledge gaps can be seen regarding spatial behaviour of maritime organisms in their life cycle, types of habitats and maritime landscapes necessary for productivity, resilience and diversity of the sea ecosystem and the role of different types of the sea space in providing regulatory services. However, also more conventional knowledge, for instance, conventional oceanographic information on surface and bottom currents, as well as information on winds, the location of habitats and their value, mineral deposits (e.g. shale gas) is hardly sufficient for an evidence-based MSP.

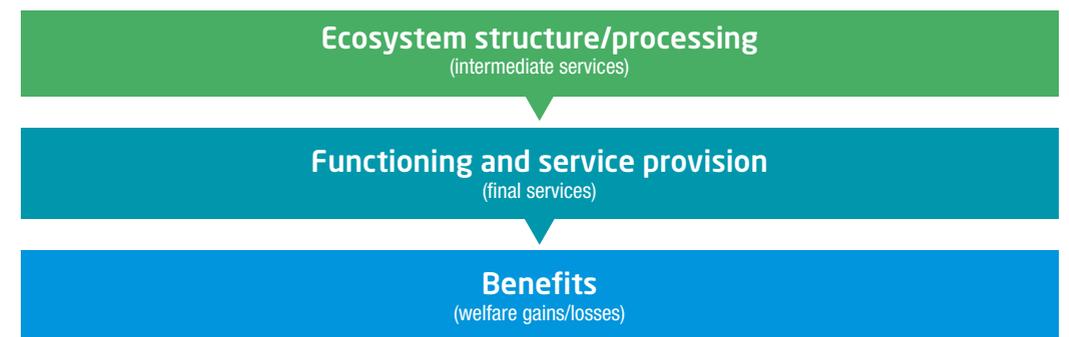


Figure 2. Simplified ecosystem values typology

Source: redrafted from Arch project, adapted by Tiziana Luisetti; from Fisher *et al.* (2009) and Turner (2011).

Worth noting are also conclusions on the progress of research on ecosystem services in the BSR countries as far as their economic value is concerned. For instance, Söderqvist and Hasselström (2008) discovered a certain kind of bias among BSR researchers towards focusing more on themes already studied, such as habitat, food provision, recreation, aesthetic values. They have noticed that other themes are not viewed as important due to lack of knowledge about them. This shows how important it is to initiate research on issues such as spatial aspects of food web, sea ecosystem resilience and diversity and sea space contribution to regulatory services.

MSP can play an important role both in the exploitation and protection of ecosystems in line with the sustainable development paradigm. In exploitation one should try to minimise typical spatial conflicts between users of the sea space, and between users and those affected by their activities. For instance, wind parks might spoil the landscape and by that diminish the number of tourists visiting the neighbourhood. This is a typical example of external costs or negative externalities. MSP can prevent such outcomes if other suitable offshore locations are available. Effort should also be made to secure external benefits of sea space use (for instance, preference for activities exerting the greatest impact on the development of coastal municipalities). In terms of ecosystem conservation it is important to pay attention to the ecosystem integrity, its critical mass for absorption of external shocks (to keep, in the long run, at least the current quality of natural capital) and to the good environmental status as operationalised through agreed qualitative descriptors in the MSFD. However, it is worth noting that only some descriptors are sensitive to the MSP instruments and measures (Table 1). Thus MSP can be instrumental for enhancing biological diversity, increasing fish well-being, controlling alteration of hydrographical conditions as well as securing food web dynamics and sea floor integrity, but it can hardly help with the issue of non-indigenous species or contaminants in fish. In other words MSP cannot substitute other management measures designated for achieving objectives of the MSFD. As pointed out by Lamp (2011) *it cannot be the task of MSP to integrate all sectors and descriptors of the MSFD or even to mirror them in the field of MSP.*

Table 1. The MSP and qualitative descriptors for determining good environmental status

Source: Own elaboration.

Qualitative descriptors for determining good environmental status	To what extent the descriptor can be influenced by MSP
(1) Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.	MSP should pay attention to the need of protection of areas of important ecological values. MSP should also ensure connectivity and coherence of habitats, can pay attention to securing desirable mix of marine underwater landscapes.
(2) Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.	Limited influence of MSP. However, MSP in the future can use available data and information (e.g. developed by HELCOM) for assessment of the location of shipping routes and areas of ballast water exchange in the context of the risk of introducing alien species, in particular, into the indigenous plankton communities.
(3) Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.	MSP can safeguard places important for well-being of fish (e.g. spawning and nursery grounds).
(4) All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.	MSP can safeguard habitats necessary for maintenance of food web.
(5) Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.	MSP can formulate recommendations toward land-base activities. MSP should also collect and use the information ⁸ about areas affected by eutrophication. This is important for allocating functions to sea areas in line with their capability to accommodate certain uses.
(6) Sea floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.	MSP can safeguard sea floor integrity. This helps in safeguarding the structure and the function of the ecosystem and prevents benthic ecosystems from being negatively affected.
(7) Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.	MSP can control alteration of hydrographical conditions resulting from different types of constructions ⁹ .
(8) Concentrations of contaminants are at levels not giving rise to pollution effects.	MSP can formulate recommendations toward land-base activities – see descriptor 5.
(9) Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.	Limited influence of MSP.
(10) Properties and quantities of marine litter do not cause harm to the coastal and marine environment.	Limited influence of MSP (except on dumping).
(11) Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.	MSP can be used for noise control if necessary; however, this should also be controlled by building and construction permits ¹⁰ .

8 Relevant map layers could be maps on oxygen content of the water and in bottom areas, distribution maps for sea grass or other macrophytobenthos as well as the regularly monitored data of distribution of chlorophyll A in coastal areas, layers about the photic zones (Lamp 2011).

9 Maps should be developed that allow a forecast of how the sea floor structures and benthos communities may be affected and how hydrological changes might be the result of certain use scenarios (Lamp 2011).

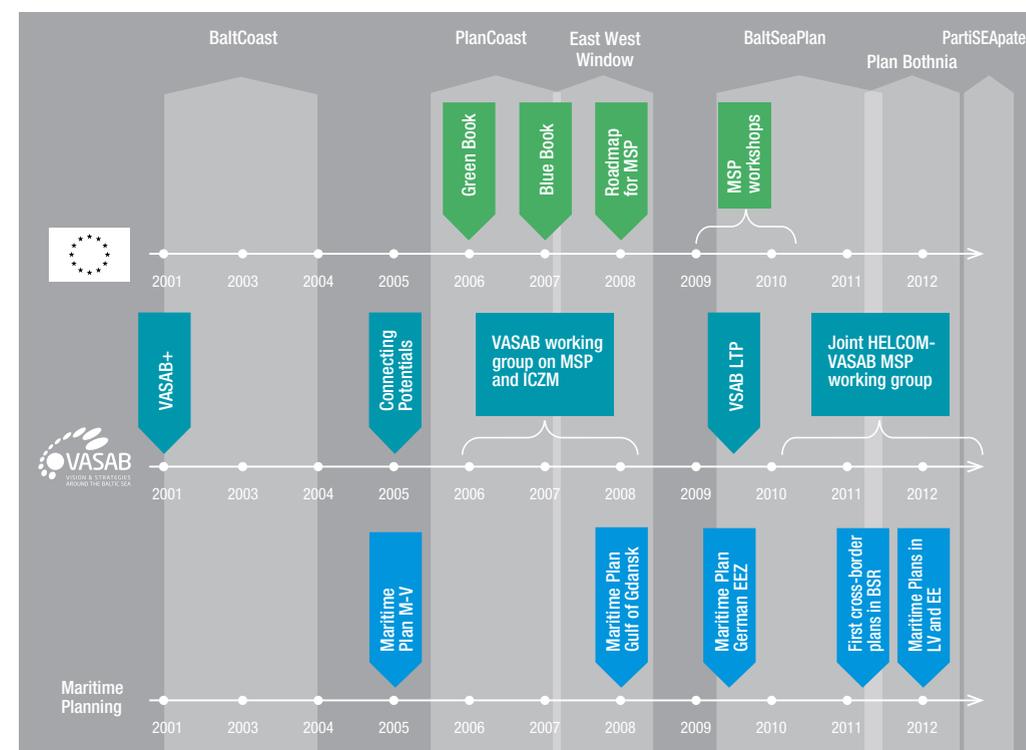
10 Underwater noise maps which are correlated with sensitivity patterns of marine species (marine mammals) /.../ can be directly used for zoning, routing and permitting decisions in MSP (Lamp 2011).

1.3. Baltic Sea Region as a pioneer in maritime spatial planning in Europe. The role of VASAB

While the period of rapid development of MSP in Europe has been noted since the middle of the past decade, very similar considerations, discussions and practical attempts in the BSR started few years earlier. The way was paved by Mecklenburg-Vorpommern and its visionary Head of Spatial Planning Department Bernhard Heinrichs acting also in the late 1990s as Head of the Committee on Spatial Development in the Baltic Sea Region (CSD), which was the steering committee of the VASAB inter-ministerial cooperation. The pilot projects, such as BaltCoast, originated from VASAB Ministerial Conference of 2001 and, being a part of the “VASAB 2010 Spatial Development Action Programme” and PlanCoast¹¹ that was a BaltCoast continuation after the VASAB Ministerial Conference of 2005, advanced MSP at the beginning of the current millennium. The first European handbook on MSP was published in the BSR (Schultz-Zehden *et al.* 2008) spreading good news about the integrated nature of the concept. It was one of the first compilations on possible tools and instruments that can be applied in developing an effective integrated MSP. The initial part of the handbook explains why an integrated approach is required in coastal and marine planning, its concluding part clarifies the practical steps spatial planners should take and the final section outlines a political and administrative framework for integrated MSP.

Figure 3. Development of MSP in the BSR in relation to EU efforts

Source: Own elaboration of Magdalena Matczak (Maritime Institute in Gdansk).



11 The Project led by Mecklenburg-Vorpommern (Germany) aimed at sharing Baltic Sea experience on MSP with countries around the Black and Adriatic Seas. It allowed Baltic partners to generalise their MSP experience and consolidate their know-how.

In the late 1990s and at the beginning of the current century MSP in the BSR has been developed in two directions: (i) as a policy task requiring new mandate for spatial planning authorities including legislation framework and administrative routines, (ii) and as methodological challenge, namely, a planning practice requiring new knowledge, skills and know-how. The first group of issues has been prioritised within the VASAB cooperation, whereas the second one has been addressed in the form of numerous pilot projects initiated and executed by the BSR countries and their authorities and financed under the EU INTERREG Programme. This approach (reinforced later by the said EU-wide effort) has resulted in a useful learning process that enabled gaining practical insight and experience and translating those into legislative provisions and administrative arrangements (see Fig. 3).

As illustrated in Figure 3, the starting point for the introduction of the MSP idea to the BSR was the 5th VASAB Ministerial Conference in Wismar in 2001. In the Wismar Declaration the Ministers responsible for spatial planning and development in the countries of the BSR urged the VASAB network to place emphasis in its future work on projects extending spatial planning also in the offshore direction (VASAB 2001:II). The key document for Wismar, *VASAB Action Programme*, produced in order to enhance the implementation of the VASAB vision and strategies adopted by the VASAB Ministers in 1994 in Tallinn (VASAB 1994), was built around six key themes. The sixth theme, addressing integrated development of coastal zones and islands, directly examined issues related to MSP. This was the first BSR strategic document explicitly highlighting the need for MSP as a remedy to conflicts resulting from increased intensity of the use of the sea space.

Equally include offshore and landside coastal areas. Growing spatial conflicts in coastal waters like the one between offshore wind-mill parks and undisturbed sea traffic show a need to apply instruments of spatial planning. (VASAB 2001:37)

The period 2001-2005 was devoted to the accumulation of practical experience on MSP in the BSR. The maritime spatial plan was elaborated in Mecklenburg-Vorpommern, in collaboration with spatial planners from several BSR countries. The plan covered a sea zone of 12 nautical miles of German Baltic Sea adjacent to this federal state. The document entered into force in 2005, becoming the first maritime spatial plan in Europe. The experience from this process was generalised in the form of *Recommendations on the Role of Spatial Planning in Integrated Coastal Zone Management*¹² and *Sea Use Planning*¹³ prepared under leadership of Bernhard Heinrichs and Holger Platz (for their summary see box below¹⁴).

A. Use the strengths of spatial planning for cross-sector coordination in offshore development

Promote the preparation of spatial plans for offshore areas

Aim: More effective and transparent coordination of different use interests; no transfer of unsolved onshore problems to offshore; sea area reservation for unknown future needs.

Use territorial impact assessment tools for projects

Aim: Comprehensive balancing of interests with sufficiently detailed consideration of all relevant impacts - environmental, social and economical.

¹² *Integrated Coastal Zone Management (ICZM)* is a dynamic, multidisciplinary and iterative management process to promote sustainable management of coastal zones. It covers the full cycle of information collection, planning (in its broadest sense), decision making, management and monitoring of implementation.

¹³ At that time VASAB most frequently used the term 'sea use planning' but later switched to the term 'maritime spatial planning' as proposed by the European Commission.

¹⁴ Recommendations were developed under BaltCoast project, for more details see Heinrichs *et al.* (2005).

B. Introduce tools and methods for spatial coordination of offshore uses

Improve the availability and accessibility of mapped information

Aim: A GIS-based fact-bank on offshore uses with secured updating routines and easy access across borders.

Define basic national policies for offshore development which are coordinated cross-sectorally

Aim: Strategic offshore development guidelines and prioritisation rules for use conflicts.

Improve the effectiveness of cross-border consultation for offshore development plans and projects

Aim: Effective cross-border consultation with clear contact points and consultation procedures and complete, reliable, easy-to-obtain information across borders.

Prepare indicative guidelines for content and procedures of offshore spatial planning

Aim: A tool box for countries wishing to introduce spatial planning for offshore areas; harmonised standards for spatial plans which facilitate cross-border concertation.

Apply ICZM principles in offshore planning

Aim: Observance of ICZM principles in the offshore spatial planning process.

Ensure wide involvement of stakeholders in planning for offshore development

Aim: Adequate involvement of offshore and onshore stakeholders at all stages of spatial planning.

C. Improve the transnational discussion and concertation process

Conduct continued dialogue with HELCOM, Baltic 21, VASAB and EU Commission on principles for offshore spatial planning

Aim: Coherent offshore development principles; accelerated implementation of recommendations A to C.

Seek continued consultation with the EU regarding recommendations on ICZM, EIA¹⁵ and SEA¹⁶ Directive

Aim: A high degree of synchronisation of different organisations' approaches in overlapping themes.

Develop transnationally concerted plans for offshore infrastructure corridors

Aim: Coherent vision of transnational corridors for international shipping and utility networks (pipelines, cables).

Promote transnational research and pilot projects

Aim: Enhanced knowledge on present and future use demands and their potential impacts.

Promote experience exchange with other regions

Aim: Improving the quality of spatial cross-sector use coordination through knowledge exchange.

Even if read many years after their elaboration, the recommendations still seem topical and inspiring. They address important issues such as the broadly interpreted precautionary principle (unknown future needs), competition between terrestrial and sea space, need for the sea basin cooperation (harmonised standards for spatial plans which facilitate cross-border cooperation), need for the coordination of sectoral policies that influence sea space. The recommendations were presented at the 6th VASAB Ministerial Conference in Gdansk in 2005 and served as guidelines for future work of VASAB and VASAB member countries in this field. They gave foundations to several key BSR projects on MSP (see Fig. 3) that are discussed latter in this book.

¹⁵ EIA – *environmental impact assessment* is an assessment of the possible positive or negative *impact* that a proposed project may have on the environment.

¹⁶ SEA – *strategic environmental assessment* is a decision support process to ensure that environmental and possibly other sustainability aspects are considered effectively in policies, plans and programmes.

The 6th VASAB Ministerial Conference took the MSP issue forward. In the Gdańsk Declaration adopted by the Ministers, they underlined the importance of supporting spatial planning in intensively exploited marine areas. In the background policy document *Connecting Potentials* (VASAB 2005), MSP together with Integrated Coastal Zone Management (ICZM) was upgraded to one of the four VASAB key priorities. MSP was regarded as one of the decisive factors shaping the development of the BSR space till 2030. Some most acute challenges for the implementation of the MSP identified in the aforesaid recommendations were acknowledged in the policy document.

Sea use planning could serve as a tool to prevent conflicts of use in intensively used offshore areas. This requires the continuation of systematic information exchange concerning offshore uses, such as maritime transport, fishery, tourism, mining, energy production, etc. The preparation of spatial plans for offshore areas, wherever appropriate, and a cross-sectoral assessment of specific offshore projects would support such a tool. (VASAB 2005:13)

Due to the 6th VASAB Ministerial Conference, the work on MSP got the green light within VASAB cooperation. This was the right timing to ensure synergy with the EU processes started with the publication of the aforesaid EU Green Paper on Maritime Policy (EC 2006). VASAB contributed to this process with “A joint VASAB and Baltic 21 input to the EU Green Paper on Maritime Policy”. The BaltCoast project team was entrusted with developing the first draft of the statement. The experience of the BaltCoast and the recently launched PlanCoast projects was used to that end. In its statement, VASAB outlined the accumulated MSP experience in the BSR and its uniqueness on a European scale.

The experience of advanced joint approaches together with the unique geographic conditions of the Baltic Sea gives the Baltic Sea Region an opportunity to be transformed into a maritime best practise region, as proposed in the Communiqué from the 14th Session of the Council of the Baltic Sea States in 2007. (VASAB 2007)

VASAB came up with thirteen main messages (see box below) that were to a great extent accommodated by the European Commission in the consecutive Blue Book (EC 2007). This was one of the most important successes of VASAB in terms of policy making. VASAB stressed the need of the holistic approach based on a jointly agreed vision, policy integration, land-sea integration and covering by MSP the exclusive economic zone (EEZ)¹⁷ despite only a limited national jurisdiction there. At that time VASAB successfully promoted an idea that ICZM and MSP should be linked and combined since they affect the same area and are anchored in the same integrated policy making paradigm. Those concepts were also presented in the aforesaid handbook on MSP published under the PlanCoast project (Schultz-Zehden *et al.* 2008).

Excerpt from the joint VASAB and Baltic 21 input to the EU Green Paper on Maritime Policy

The holistic approach to maritime policy expressed in the Green Paper is welcome and there is an agreement that we can no longer afford to manage issues related the oceans, seas and the coastal areas purely on a sectoral basis. We support the Commission's opinion that maritime spatial planning is an important instrument for a growing and sustainable development of the maritime European regions.

¹⁷ Defined in the United Nations Convention on the Law of the Sea (UNCLOS) as waters stretching from the seaward edge of the state's territorial sea out to 200 nautical miles from its coast (or to the sea borders of other countries).

Planning of the sea space calls for equal attention to what is happening on the land as well as on the sea side, especially in view of the grave environmental state of the Baltic Sea. For all seas the interdependence between sea and land born processes is evident, but for the closed Baltic Sea with its grave problems it must be the basis for all planning processes. /.../ Thus, a closer link to the implementation of the marine directive and the Water Framework Directive should be established.

Well known planning principles that have been successfully transferred to the ICZM framework seem to be important factors for a holistic outlook with its cross sectoral approach, the consensus driven dialogue between stakeholders, the ecosystem approach and the application of area-wide GIS data. This integrated approach is not only applicable in the coastal areas (as Green Paper Chapter 3.4 would suggest) but also a perfect tool for far-sea spatial planning. Integrated Joint Management of the Coastal Zone and Sea Space is not just one of the tasks to be achieved within the structure of the Maritime Policy, but is the overarching coordination measure in order to make this policy holistic.

This implies also to need of redefining the term ‘Coastal Zone’ which at present is generally identified with the area of coastal land and a narrow strip of coastal waters as defined by the Water Framework Directive. However, it is becoming increasingly apparent that strong economical, social and environmental land-sea interactions extend much further into the sea to the territorial sea border or even to the EEZ border. Therefore, efforts must be **made to promote a holistic approach that transcends artificial boundaries in management and policy (e.g. sea shore, 12sm zone, EEZ) and to stimulate thinking beyond present competences.**

The key task of sea use planning and coastal planning and management (ICZM) is preventing or settling conflicts over the use of space. This can be done through agreeing on main principles of using the sea and terrestrial space. Such principles should be coordinated with other policies and guidelines and the responsibility for I(CZ)M and sea use planning should therefore be addressed based on subsidiarity by political bodies of all levels: municipalities, regional government, national government and EU level. These bodies should initiate the transparent process according to the EU recommendations and assign responsibilities for its continuation in the future to relevant actors.

The most important condition for a successful integrated management is a vision – an overall goal, which unites all stakeholders and guides their activities. VASAB provides such a vision for the Baltic Sea Region and is currently working on a new Long Term Perspective 2030. Visioning is one of the key tools for spatial planning and can be successfully adapted to sea use planning as well.

Taking into account the current considerable amount of interventions from public authorities and the limited resources at hand, both in terms of finance and personnel, it is not recommended to create new institutions and organisations specifically for I(CZ)M or sea use planning, but rather to put focus on the optimisation of existing institutions and improved cooperation.

There is a need to predefine the content of sea use plans to ensure their compatibility between countries. This is important for a relatively small see as the Baltic Sea. The following issues could be considered in maritime spatial plans:

- Environmental protection.
- Protection and sustainable management of natural resources.
- Industrial uses, e.g. wind energy plants.
- Main shipping routes.
- Cables and pipelines.
- Fishing.
- Tourism.

National experts should agree on a certain set of methodological guidelines (e.g. a hand-book) for preparation and implementation of maritime spatial plans.

Maritime policy could also play a more prominent role in optimizing the maritime transport with road, railway, and port development with a focus on multimodal transport centres. This is important e.g. in the BSR case to avoid a situation where the fast development of sea transport will result in unsustainable tendencies/processes on land, such as traffic jams, traffic accidents etc. Upgrading and adaptation of port infrastructure as well as of port hinterland links could receive a higher priority in the EU financed investment programmes. It could be considered, both at EU and national level, to extend the list of hinterland corridors to be prioritised within the EU programme for international transport corridors.

Maritime policy also might be integrated with tourism development policy, e.g. small marinas hold an economic potential for a considerable number of regions around the Baltic Sea, especially those lagging behind. Sustainable development of boat tourism requires coordination with the corresponding infrastructure developments, with nature protection and with urban and regional development as well as proper zoning for "leisure" purposes at the sea. Voluntary agreements with the nature protection actors might be welcome in order to open habitats which need protection for sailors during parts of the year. The Baltic Sea Region can offer valuable experience to that end.

The very important role of ports should be recognised by the future Maritime Policy of the European Commission. Ports could be the basis for local and regional development, of tremendous importance to poor areas. This is not always understood by authorities and the general public.

The use of modern Geographic Information Systems (GIS) is a basis for maritime spatial planning. One of the key findings of a VASAB initiated project is that one of the main obstacles is low quality of available data. Therefore we strongly advocate an EU-wide promotion of GIS. EU could take the opportunity to develop and enforce a coherent set of GIS standards (such as a coordinate system, symbolic etc.) in order to ensure the cross-border and regional compatibility of spatial data for all EU member states and associated countries.

To test and inspire new solutions, demonstration projects are valuable tool and have already provided the Baltic Sea Region with important notions. Baltic 21 emphasis this method for a holistic and integrated urban and rural development i.a. in the following areas of relevance for a sustainable marine development:

- Promoting the ecosystem management of marine resources including sustainable fishing and eco-tourism building on initiatives such as Nature's Best.
 - Assisting in setting up sustainable demonstration areas and model landscapes such as model farms to serve as an inspiring tool for local authorities and sub-regions around the Baltic Sea.
 - Promoting the eco-region concept in the Baltic Sea Region, including capacity building and transfer of best practices and lessons learned.
 - Supporting sustainable agriculture practices by organising practical workshops and seminars for researchers and practitioners to share experiences and lessons learned drawing on the competence of Mediterranean partners.
- (VASAB 2007)

Almost at the same time the VASAB Working Group on ICZM was established. It was launched in 2006. In the course of the group's work, the content increasingly evolved towards MSP, and the name of the group was changed to the *Working Group on the Sea Use Conflicts and Potentials*, abbreviated to WG3. The WG3 was supported by the East West Window project financed by the INTERREG III B Programme. This allowed for a very broad participation of the Russian stakeholders, decision-makers and researchers as well as experts from Finland, Germany and Latvia. The excerpt from the internal VASAB document given below illustrates the rationale, ambitions and the content of the work of the WG3.

Currently sea space is not properly managed and planned in many BSR countries despite growing number of "spatial" type of conflicts between different users of this space e.g. wind farms, aquacultures, fishermen, miners and many others. The work of the WG 3 should result in implementation of the concept of the sea use planning in

the BSR. This requires first elaboration of the vision of development of the sea space in the BSR, and then principles and priorities upon which such vision can be realised. Afterwards the system of joint sea planning and management can be established¹⁸.

The WG3, as never before in the world, strongly acknowledged that the sea space should be treated as a territory and vigorously supported internationalization and standardization of the MSP in the BSR¹⁹.

The Baltic Sea should be perceived as a 'Territory' – with various consequences of this fact, for example: (i) Baltic Sea treated as a common resource, (ii) Baltic Sea treated as the "maritime territory", (iii) Baltic Sea applies-for/needs the new approach, "the territorial (-like) approach", (iv) Territorial approach (policies) of the EU should be extended to the maritime "territories". This approach should introduce the maritime issues (and Baltic) into the Territorial Cohesion policies, into the Lisbon/Gothenburg Process and into the Rotterdam/Leipzig Process of preparation of the EU Territorial Agenda²⁰.

The WG3 completed its activities in the autumn of 2008 with the following outputs:

- The report entitled "*Sea Use Planning and ICZM*" (Zaucha 2008) outlining what should be done and how in order to enhance MSP in the BSR – the report provided direct input to the VASAB *Long Term Perspective for the Territorial Development of the BSR* (LTP).
- Compendium on MSP Systems in the BSR (Cieślak *et al.* 2009) summarising contemporary knowledge on MSP systems, legislation, main driving forces behind the use of sea space in the BSR countries.
- Recommendations on ICZM and marine spatial planning in the South East Baltic welcomed by the plenary session of the International Conference "Integrated management, sustainable development indicators, spatial planning and monitoring of the South-Eastern Baltic coastal regions" held in Kaliningrad in 2008 as the first attempt to acquaint Russian authorities and stakeholders across the country with the MSP concept (Zaucha *et al.* 2008:284-288).
- The Action Plan for implementation of MSP in Russia that was elaborated and discussed with Russian stakeholders (Zaucha and Zotov 2008).

The implementation of ICZM and marine spatial planning should be realised (in Russia) first of all by legislative decisions at the regional and national level which have been taken with the involvement of stakeholders and coastal communities²¹.

The report "*Sea Use Planning and ICZM*" was both of analytical and policy nature. It was the first comprehensive attempt to analyse main conditions, driving forces, the current status, specificity and the most plausible directions of MSP development in the BSR countries. The analytical work was based on national inputs. The analysis revealed that, although the main driving forces shaping the development of the Baltic Sea space were more or less similar in the BSR countries (maritime transport, demands for better protection of marine biotopes, renewable energy, maritime tourism), the coverage and intensity of spatial planning differed among the countries. There was no BSR country at that time (except Germany) that had managed to establish a fully developed MSP system. The majority of countries even had not clearly delegated responsibilities as regards conducting MSP. The use of sea space was sectorally biased and based on the established traditions. The examinations also allowed concluding that the emerging MSP in the BSR was demand driven, of a grass root character, prompted by the intensification of maritime spatial conflicts. MSP also appeared to become firmly rooted in the national planning paradigms, in particular at the level of trust in spatial planning as an instrument for

¹⁸ The excerpt from the document, introducing the WG3 to the VASAB Annual Conference in Warsaw in 2006.

¹⁹ WG3 raised the question of the territorialisation of maritime policies that advanced a political agenda in Europe so intensively only four years later (Zaucha and Szydarowski 2011).

²⁰ The excerpt from the document, introducing the WG3 to the VASAB Annual Conference in Warsaw in 2006.

²¹ An excerpt from *Recommendations on integrated coastal zone management and marine spatial planning in the South East Baltic*.

conflict reconciliation. Also the efficiency of the existing sea management system appeared to become important. The low efficiency coupled with the growing number of conflicts usually stimulated the introduction of the MSP. Not surprisingly, the analysis did not discover any new uses of maritime space, such as blue biotech or sub-sea technologies in the Baltic Sea at that time, but rather pointed towards the intensification of traditional uses and spatial conflicts on the sea due to that.

In the policy part of the report “*Sea Use Planning and ICZM*” the preconditions for successful introduction of the MSP into the BSR countries were examined and identified. The following items have been considered as the most important preconditions for the successful development of MSP:

- existence/establishment of a public institution responsible for MSP with an appropriate legal mandate,
- existence of legal provisions ensuring the users’ compliance with solutions put forward within maritime spatial plans,
- an agreement at BSR level on important targets of the use of Baltic resources (e.g. how much offshore energy should be produced in the Baltic Sea and what the division of labour among countries should be in that respect, or what marine landscapes should be protected and in which countries),
- integration of MSP and terrestrial spatial planning in order to avoid discrepancies between planning land and sea,
- and finally, the acceptance of a common minimum standard for maritime spatial planning (e.g. the minimum content of plans, similar legends of maps) in all countries surrounding the Baltic Sea in order to facilitate cross-border cooperation in planning the Baltic Sea space²².

The WG3 proposed BSR-specific MSP principles as a backbone for this type of a common denominator. The principles were elaborated in advance of the EU ones, although there was a lot of synergy between both of those.

Maritime Spatial Planning Principles

1. MSP should demonstrate a farsighted/pro-active approach – planning based on a BSR vision, internationally agreed goals etc.
2. MSP should be run by an institution enjoying organisational independence from the individual sectors.
3. MSP should be based on a principle of diversity, on participatory approach and transparency.
4. MSP should respect the ecosystem approach.
5. MSP should cover all sea layers and should take into consideration important seasonal changes in the sea space.
6. MSP should use the adaptive approach to planning and be of a continuous character. Such planning cycles can differ between the countries as far as details are concerned, could be improved or redeveloped. What really matters is principle of continuity of the MSP process.
7. MSP should be science-based (evidence based spatial planning).
8. Maritime Spatial Plans should be transnationally coordinated and joint planning of some sea areas should be installed.
9. MSP should follow the nested approach.
10. Complementary planning of the sea space and adjacent coastal areas should be achieved.
11. MSP should be of precautionary character.
12. MSP should take into account recommendations, knowledge and information of Pan-Baltic organizations and CEMAT at an early stage of planning.
13. The decision making processes in case of lack of Maritime Spatial Plans should be well coordinated vertically and horizontally, transparent and include public participation. (VASAB 2008)

²² The report on minimum requirements summarised in Chapter 4 hereof fulfils this condition.

The final part of the report “*Sea Use Planning and ICZM*” was devoted to the VASAB action plan on the introduction of MSP. In the action plan, the emphasis was placed on building a political commitment towards proper MSP in the BSR countries. The following activities were proposed:

- drafting of a convention or agreement on MSP in the BSR providing the missing legal and institutional frame for transboundary MSP in the region,
- establishment of the overall understanding of data flows between sectors and countries,
- capacity building (training maritime spatial planners, agreement on a harmonised research agenda in the BSR to enable the acquisition of information required for an evidence-based maritime spatial planning),
- joint planning of investments of genuinely trans-national character that would require cooperation of BSR countries and would allow for a more sustainable use of the Baltic Sea space in future (intelligent sea transport corridors enabling the separation of sea traffic and preventing ship accidents, and *Supergrid* linking new power plants that produce renewable energy in territorial seas of all BSR countries were mentioned in this context).

The report “*Sea Use Planning and ICZM*” also proposed that the BSR should become a model region for sustainable management based and transnationally coordinated MSP. Thus the document contributed to the intensive discussion on the essence of the MSP. One should bear in mind that there was no generally accepted MSP in Europe at that time. There was not even consensus to what extent and how the spatial planning of the sea space should be connected with its management. Therefore, VASAB has proposed to rely on the terrestrial experience, spatial planning being an important element of integrated management. The VASAB definition of MSP in 2008 stressing the process character of the MSP is given below.

MSP as a legally based hierarchical process reconciling competing claims on the sea space (sea surface, sea bottom and water column) in line with the goals and values of the given society, manifested in national and international priorities and agreements. MSP guides and monitors sea space development through the appropriate instruments (e.g. vision, strategies, spatial plans). MSP requires continuous assessment of the planning results versus development trends and adequate revision of visions, plans, and strategies. (Zauchka 2008:10)

The key ideas and concepts identified in the report “*Sea Use Planning and ICZM*” have been further developed a few years later within the BaltSeaPlan project, namely, in the *BaltSeaPlan Vision 2030 – “Towards the Sustainable Planning of Baltic Sea Space”* (Gee *et al.* 2011) which is the most mature contemporary BSR document in this field.

Finally, the report “*Sea Use Planning and ICZM*” served as a direct input to the most recent VASAB policy document, *VASAB Long Term Perspective for the Territorial Development of the Baltic Sea Region – LTP* (VASAB 2009) that was presented to the 7th VASAB Ministerial Conference in 2009 in Vilnius. The LTP highlights the current territorial development trends and challenges and presents key steps for the long-term spatial development of the region. Further on, the document proposes a list of actions in order to stimulate territorial development potentials. The LTP covers only the policies for which the transnational cooperation in spatial planning provides a substantial added value. These have been deliberately limited to: (1) urban networking and urban-rural cooperation, (2) accessibility, and (3) maritime spatial planning. Out of 22 agenda actions identified in the LTP, seven are related to MSP and sea space management (see box below).

Action Agenda of the VASAB Long Term Perspective for the Territorial Development of the Baltic Sea Region

Action Agenda 14: Develop the Motorways of the Sea in the Baltic Sea Region as a systemic solution to enhance the cross-border scale integration and a transfer of goods between the EU, the eastern neighbours, Central Asia and the Far East. Consider in the revised EU transport policy the extension of the Baltic Sea Motorways system to include further short-sea links between the EU ports, as well as connections from the EU ports to Kaliningrad and Saint Petersburg.

Action Agenda 15: Initiate work on the intelligent sea transport corridors in the BSR (separated and electronically monitored traffic routes) by activating at least one pilot project for a corridor with high traffic volumes in an environmentally sensitive area.

Action Agenda 17: Consider a BSR Energy Supergrid to interconnect the power plants producing renewable energy in the BSR sea areas as a possible component of actions towards a fully integrated BSR transmission grid.

Action Agenda 18: Analyse and demonstrate solutions for better utilisation of renewable resources on the pan-Baltic scale and thus a higher energy independency of the Region (exemplary topics named).

Action Agenda 20: Arrange a BSR conference together with relevant stakeholders in order to develop a common approach for the Baltic Sea Maritime Spatial Planning.

Action Agenda 21: Prepare and implement demonstration projects for some Baltic Sea areas of severe use conflicts (e.g. the Gulf of Finland, the Gulf of Riga, Norra Kvarken, southern part of the Gulf of Bothnia, including the archipelagos, the Danish straits, and offshore areas south and east of Öland and Gotland, as well as other appropriate Baltic Sea locations).

Action Agenda 22: Initiate joint capacity building actions in maritime spatial planning to ensure exchange of experience, promote education availability and to increase competence in that field at the BSR level.

The LTP also managed to integrate MSP within all others spatial development actions and priorities forming coherent picture of the BSR spatial development as presented in Figure 4. This was one of the first maps (sketches) produced worldwide, integrating so tightly the maritime and terrestrial spatial development. The VASAB Vilnius Declaration adopted by the 7th Ministerial Conference underlined that the Baltic Sea environment and the sustainable use of the sea resources need to be supported through an integrated land and sea space planning and management. This was considered as a common responsibility that should be shared by all countries in the BSR and underpinned by relevant national sectoral policies.

As a consequence of those strategic decisions, VASAB volunteered to become a leader of the Horizontal Action on MSP envisaged in the EU Strategy for the Baltic Sea Region (EC 2009) (EU Strategy for BSR²³) and described in depth in its Action Plan (EC 2009a). VASAB assumed this function together with the Helsinki Commission (HELCOM). The aforesaid action aims at the development of a MSP system for the Baltic Sea based on the ecosystem approach. Two projects (described later in this book), that is, BaltSeaPlan and Plan Bothnia, were seen as key activities for advancing this horizontal action of the BSR Strategy. The impacts of the BaltSeaPlan project

23 The EU Strategy for the Baltic Sea region (EU BSR Strategy) is an EU development strategy covering the EU part of BSR and adopted by the European Council in 2009. It is implemented by concerted efforts of BSR countries, regions, municipalities and other stakeholders with support from the European Commission.

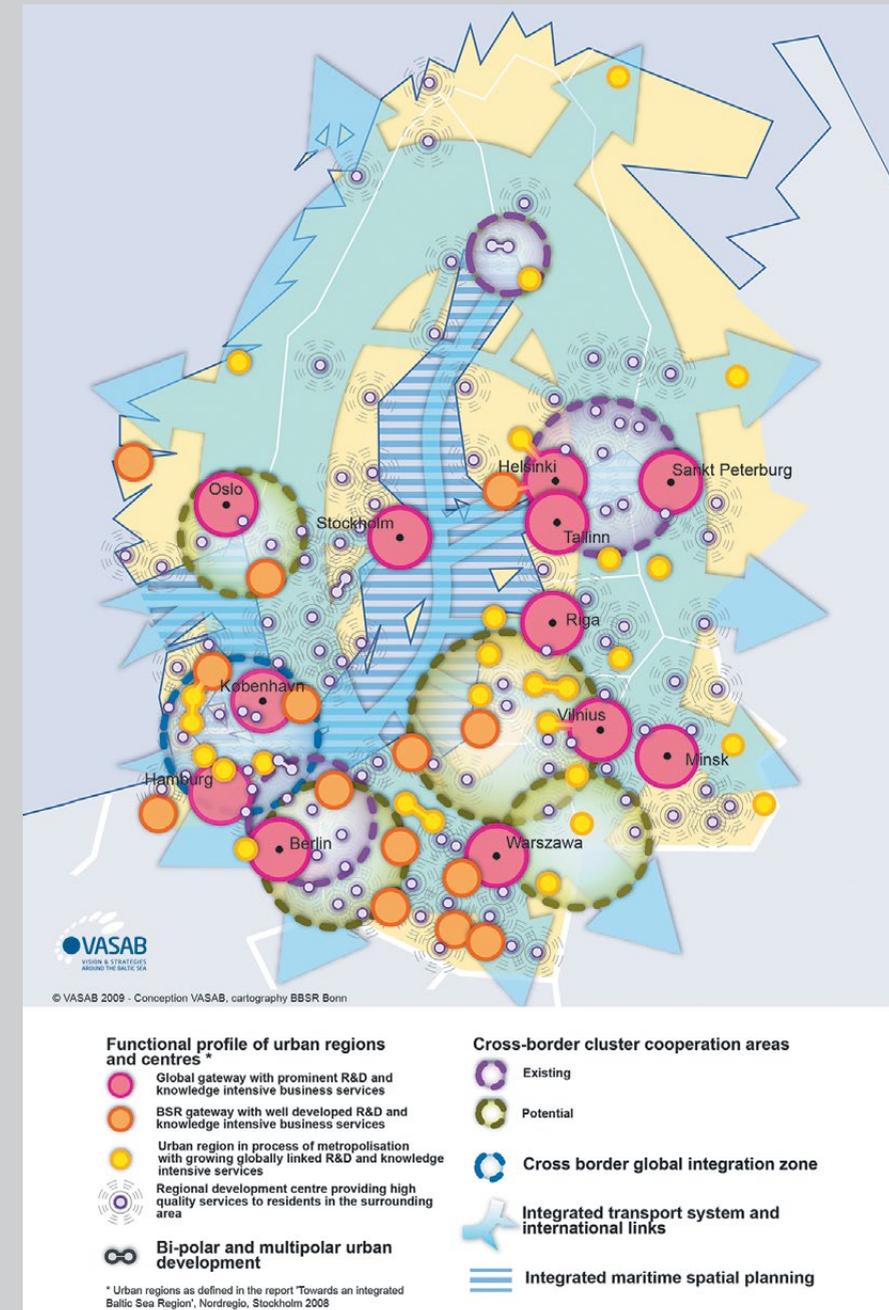


Figure 4. VASAB territorial development perspective till 2030

Source: VASAB 2009:13.

have been presented to the VASAB Committee on Spatial Planning and Development of the Baltic Sea Region in 2012. The Committee acknowledged the main results, that is, supported the MSP *BaltSeaPlan Vision 2030* (Gee *et al.* 2011) as an important vehicle of introducing MSP to the BSR. The experience in elaboration of such type of vision is described more in detail in Chapter 3 of this book.

The vision underlines key transnational spatially relevant maritime topics that require a common approach in the BSR, puts forward guiding principles for MSP, encourages the BSR states to agree on common objectives and targets for the Baltic Sea space and suggests establishment of a transnational MSP coordinating body to ensure adequate data management, the development of MSP methods as well as tailored monitoring.

After the 7th VASAB Ministerial Conference jointly co-chaired by HELCOM²⁴ and VASAB Working Group on MSP – Joint HELCOM-VASAB MSP Working Group (the Group) was established in 2010 to ensure cooperation among the BSR countries for coherent regional MSP processes in the Baltic Sea. The Group has a clear mandate for facilitating the process of the establishment of MSP in the BSR countries. In general, the Group should contribute to the implementation of the aforesaid actions of the LTP related to MSP, to the HELCOM Baltic Sea Action Plan²⁵ in which MSP is presented as an important tool for achieving good environmental status of the Baltic Sea and, finally, to the EU Strategy for the BSR and its Action Plan. The common goal is to draw up and apply maritime spatial plans throughout the BSR by 2020 which are coherent across the borders and apply ecosystem approach.

The Group prepared a set of HELCOM-VASAB MSP principles (see Chapter 2). The principles were adopted both by HELCOM and VASAB and translated into several BSR languages including Russian. They have been examined under several BSR projects, mainly *BaltSeaPlan* and *Plan Bothnia*, and are also going to be tested by other projects and regular MSP practice. The Group brings together the EU and BSR officials responsible for MSP. It meets on a regular basis, at least two times a year. The Group acts as a permanent forum for exchanging experience on MSP, solving practical problems and coordinating MSP efforts. It also examines the results of MSP projects from the BSR and other regions and is engaged in awareness-raising activities. The Group has also contracted analysis and pieces of research on the MSP, such as minimum MSP requirements or BSR good practices on MSP.

It has also frequently invested its time and effort into the methodological advancement of MSP by analysing and discussing such problems as practical application of the ecosystem approach in MSP or international legislative basis for MSP in the BSR. Recently the Group has launched the process of preparing a template of how to introduce an ecosystem approach to MSP in practice and elaborated the *Regional Baltic MSP Roadmap 2013-2020*. The Roadmap was adopted by the HELCOM Ministerial Meeting in Copenhagen, Denmark, and VASAB Committee on Spatial Planning and Development of the Baltic Sea Region in 2013.

24 In the HELCOM Baltic Sea Action Plan which was adopted in 2007, HELCOM Contracting Parties committed themselves to develop, as well as test, apply and evaluate, in cooperation with other relevant international bodies, broad-scale, cross-sectoral, marine spatial planning principles based on the ecosystem approach. To this end, HELCOM adopted Recommendation 28E/9 on the development of broad-scale marine spatial planning principles.

25 The HELCOM Baltic Sea Action Plan is a strategy aiming at restoration of the good ecological status of the Baltic marine environment by implementing the necessary measures by 2021. It was adopted at the HELCOM Ministerial Meeting on 15 November 2007.

1.4. Maritime spatial planning in the Baltic Sea Region. Projects and plans

Parallel to the VASAB work, the attempts to develop maritime plans have been made within the framework of many national and international projects. At least the following projects should be mentioned²⁶:

1. *BaltCoast*²⁷, which resulted in a plan for the territorial waters²⁸ adjacent to the German land of Mecklenburg-Vorpommern and a change in German law (Heinrichs *et al.* 2005). *BaltCoast* also developed the above-mentioned recommendations for spatial planning of sea areas, which were presented to the 6th VASAB Ministerial Conference in Gdańsk in 2005. These recommendations also prompted more systematic work by national spatial planners in the BSR countries, for instance, Poland (the improvement of the existing law on MSP) or Sweden, which aimed at significantly changing its law and including sea areas into the spatial planning system.

The aim of the *BaltCoast* project was to combine numerous concrete pilot projects and measures across the German, Swedish and Finnish Baltic Coast with the development of processes and regulations for spatial planning. Even though the project was carried out at a time when Poland and the Baltic States were not yet members of the European Union, the project involved more than 50 different experts from institutions in the BSR.

2. *PlanCoast*²⁹ – due to which the aforesaid *Handbook on Integrated Maritime Spatial Planning* (Schultz-Zehden *et al.* 2008) was published, the first pilot maritime plan in Poland was developed, and the Baltic experience was transferred to the Mediterranean Sea Region. In addition to that, the project experience was used in order to provide comments by VASAB and Baltic Agenda 21 to the EU Green Book on MSP (EC 2006).

The aim of the *PlanCoast* project was to provide best practice examples and tools for effective integrated planning in coastal zones and marine areas. The key objective was to show the strengths of spatial planning instruments in facilitating effective ICZM and maritime policy. The project analysed the role of spatial planning within ICZM, sea use planning in practice and ICZM in action as well as the role and potential of modern GIS and information exchange as a necessary pre-condition for good marine spatial planning.

Except for Germany, all partner countries concluded that a considerable legislation gap still exists with regard to IMSP. Eighteen different pilot projects were carried out throughout the Baltic, Black and Adriatic Sea, reflecting different kinds of spatial conflicts at various scales. Solutions were sought in form of new, integrated spatial plans.

3. *Balance*, which advanced the concept of marine ecological corridors and marine landscapes³⁰.

26 The short description of the projects provided have been elaborated by Angela Schultz-Zehden, who has coordinated *PlanCoast*, *BaltSeaPlan*, *PartiSEA* projects.

27 *BaltCoast* – Integrated Coastal Zone Development in the Baltic Sea Region/2002-2005, http://plancoast.eu/files/baltcoast_final_report.pdf, http://www.spatial.baltic.net/_files/Report_baltcoast.pdf Duration: 2002–2005. Finance: 2,5 Mio €/INTERREG III B. Lead Partner: Ministry of Labour, Construction and Regional Development of the State of Mecklenburg-Vorpommern (DE), Bernhard Heinrichs/Susan Toben.

28 Defined in the United Nations Convention on the Law of the Sea as waters extending at most 12 nautical miles (22 km; 14 mi) from the baseline (usually the mean low-water mark) of a coastal state.

29 *PlanCoast* (2006–2008) was an Interreg III B project for the CADSES area with 16 partners representing spatial planning and environmental departments or responsible regional authorities from Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Germany, Italy, Montenegro, Poland, Romania, Slovenia and Ukraine, which had as its aim the development of tools and institutional solutions for effective integrated planning of coastal zones and sea areas in the Black, Baltic and Adriatic Seas – <http://plancoast.eu/>. Lead Partner: Ministry of Labour, Construction and Regional Development of the State of Mecklenburg-Vorpommern (DE), Bernhard Heinrichs/Susan Toben.

30 For details please see the project website <http://balance-eu.org>.

4. *East West Window*³¹ – owing to which the aforesaid VASAB principles on MSP were elaborated, MSP was introduced into the VASAB *Long Term Perspective* of 2009, MSP ideas were brought to key civil servants responsible for spatial planning in the BSR (advancing the process of practical amalgamation of maritime and terrestrial spatial planning in the BSR), and Russia finally became part of the process.
5. *BaltSeaPlan*³², which in a practical way prepared the ground for MSP in all participating countries (including legislation change, accumulation of know-how, the examination and adjustment of sectoral policies), advanced the SEA instrument with regard to MSP and facilitated the production of several pilot maritime spatial plans. It was also instrumental for the formulation of the MSP *Vision 2030* for the BSR.

The aim of the BaltSeaPlan project was to contribute towards turning MSP into reality throughout the BSR. The project was designed to:

- Improve the information base for maritime spatial planning:
Creating a forum for dialogue bringing together spatial planners and scientists. Identification of the sources of data/information. Compilation of current uses, natural values and conflicts in the Baltic Sea. Filling data gaps. Exchange of data. Identification of relevant modelling methods. Clarifying MSP data needs. Developing a MSP data governance model.
 - Include spatial planning in national maritime strategies:
Assessment of national frameworks, methodologies and sectoral strategies influencing the use of sea space (e.g. energy, fishery, transport, tourism, as well as nature conservation). Developing recommendations on spatial issues within National Maritime Strategies and using those analyses to foster national cross-sectoral debates.
 - Develop a Vision for Maritime Spatial Planning in the Baltic Sea 2030 based on the national visions, taking into account transnational interdependencies and cumulative impacts.

Start MSP processes in eight pilot areas:
 - Danish Straights/T-Route (DK), Pomeranian Bight (DE/DK/SE/PL), Western Gulf of Gdansk (PL), Middle Bank (SE/PL), Lithuanian coast (LT), western coast of Latvia (LV), Pärnu Bay (EE), Hiiumaa and Saaremaa Islands (EE).
 - Lobby and capacity building for MSP:
Stakeholder involvement and participative planning methods, guidelines and policy recommendations. Workshops and conferences for decision-makers.
6. *Plan Bothnia* carried out jointly by pan-Baltic organizations (HELCOM and VASAB) and Finnish and Swedish local authorities. The project focuses on planning inventory and the elaboration of MSP rules and principles for the area of the Bothnian Sea.

In 2012 the PartiSEApate project was launched with an ambition to strengthen the BSR governance process in the field of MSP. The project focus is on the governance issues of transnational character identified as requiring further actions by the preceding projects, such as BaltSeaPlan or Plan Bothnia. The most important issues addressed by the PartiSEApate project are transnational consultations and transnational stakeholder participation. The project engages national bodies, sectors and researchers in a dialogue on a pan-Baltic level. It is a first attempt to establish routine communication between spatial planners and sectoral decision makers on the sea use issues within

31 *East West Window* (2007-2008) was a TACIS project which assisted VASAB in implementation of the tasks of the 6th VASAB Ministerial Conference of 2005. The main aim of the East West Window project was to accelerate the BSR development through better connecting of the existing potentials within the Region.

32 *BaltSeaPlan* (2009-2012) was an BSR programme project with 13 partners from almost all BSR countries representing national or regional authorities responsible for maritime spatial planning, environmental NGOs as well as expert institutions – <http://www.baltseaplan.eu>. Lead Partner: Federal Maritime and Hydrographic Agency (BSH).

the BSR. In workshops, these target groups gained a better understanding of what MSP means to them, what the transnational nature of their topic is and where the problems and synergies lie. Spatial and sectoral planners are obtaining insight into sectoral priorities, objectives, fears and hopes. In subsequent cross-sectoral workshops synergies and conflicts will be identified and proposals for future MSPs and related governance processes will be formulated. The ambition is to develop proposals for a pan-Baltic approach (including Russia) on the topics in which the spatial dimension transcends national borders and to draw up a concept for a MSP institutional framework and governance model in the BSR.

Almost all maritime spatial plans in the BSR to date have been developed within transnational projects. The situation with regard to MSP advancement in the BSR countries is presented by Figure 5. In all BSR countries, with the exception of Denmark, some maritime spatial plans have been elaborated or are under elaboration. Even in Russia an inventory stage of MSP has been commenced. The majority of the existing maritime spatial plans in the BSR should be treated as testing attempts only. The only binding maritime plans in the BSR functioned in 2012 in Germany, Finland (regional plans extended to include territorial waters) and Sweden (few local plans extended offshore). However, in 2011 Lithuania decided to extend its terrestrial plan to include the sea, and the elaboration of a maritime spatial plan was finished in December 2013. After international consultations and approval by the Lithuanian Parliament, the plan is to become a binding spatial planning document.

In the section below the most important BSR maritime spatial plans have been summarised in addition to the planning attempts of some countries without genuine maritime spatial plans developed so far. For Finland only one example of a regional plan extended to include the sea has been chosen to be presented for illustration purposes. The presentation follows alphabetical order. To understand the various plans one should bear in mind that in the BSR countries different levels of government are responsible for MSP³³. Sometimes the competencies of authorities in the field of terrestrial and MSP substantially differ, for instance, in Germany it is the national government which bears responsibility for MSP and the preparation of maritime spatial plans, while having a limited mandate in terrestrial spatial planning. All those differences and specificities (cf. Fig.6) explain why the plans described below are of so different character.

33 There is no room to present in this book the differences in the maritime planning systems of the BSR countries. The comprehensive explanations can be found in the Compendium on MSP Systems (Cieslak *et al.* 2009).

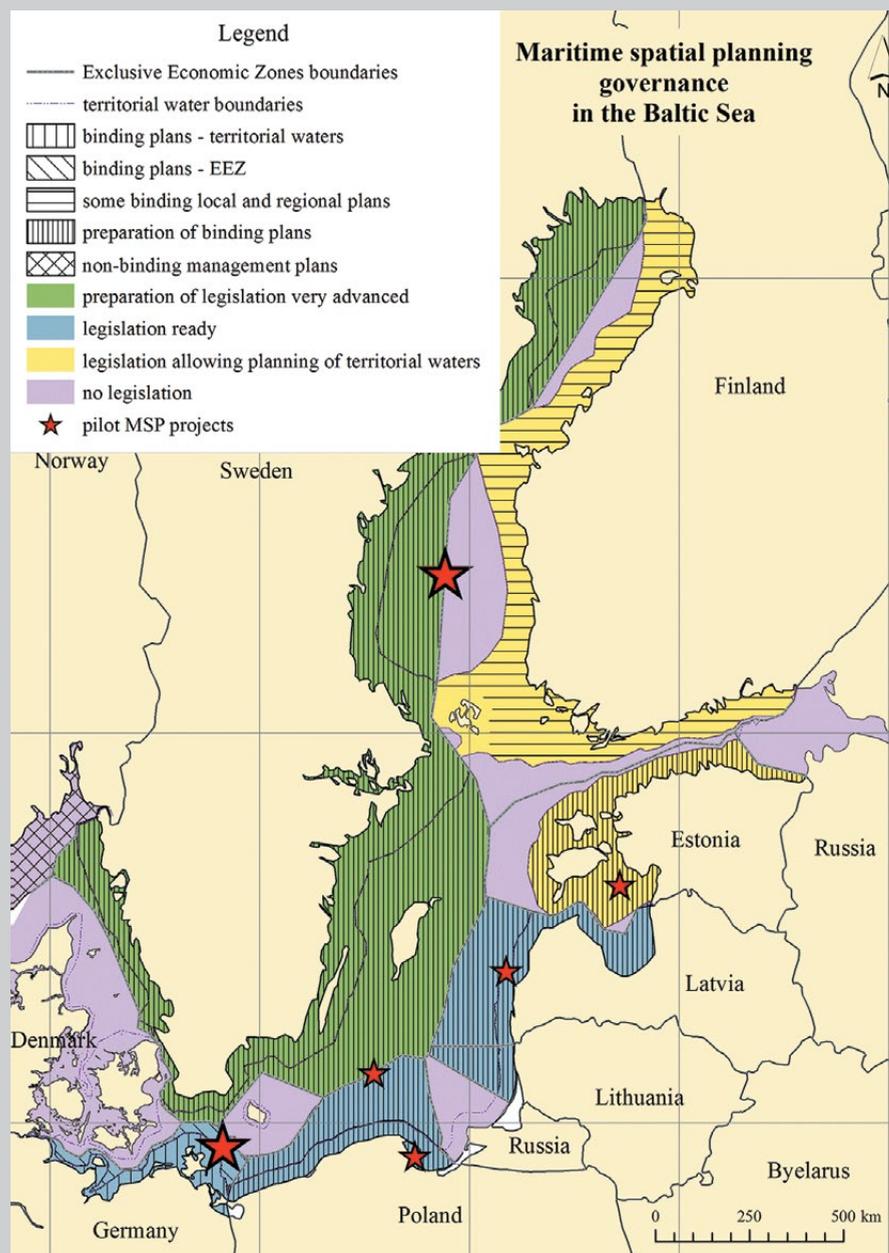


Figure 5. Advancement of MSP in the BSR countries

State: November 2013.

Source: Maritime Institute in Gdańsk (prepared by Joanna Pardus).

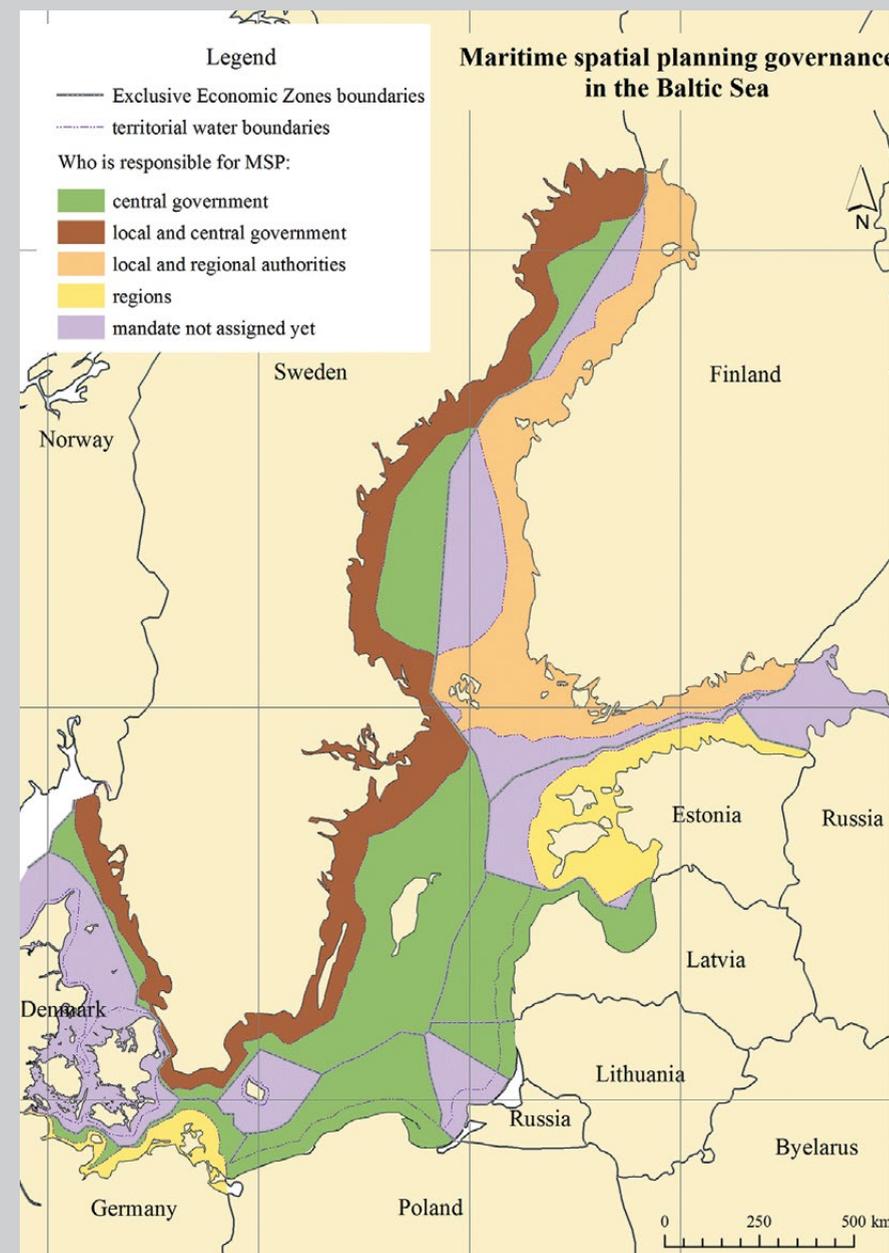
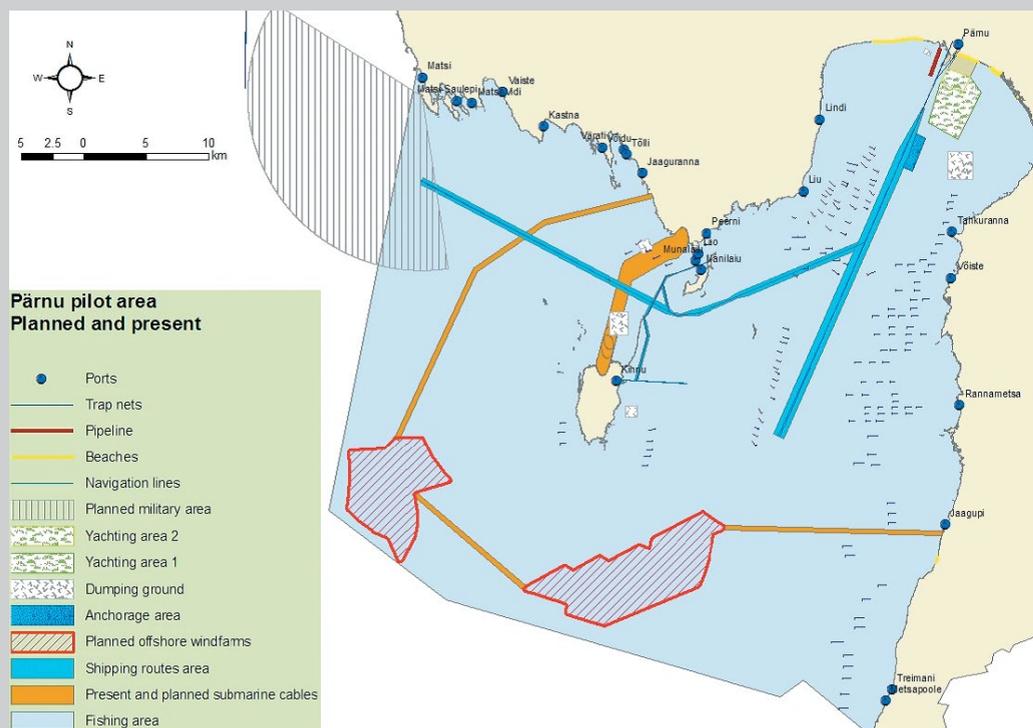


Figure 6. Responsibilities in MSP in the BSR countries

Source: Maritime Institute in Gdańsk (prepared by Joanna Pardus).



Map 1. Legally ensured human uses of the marine space of the Pärnu Bay pilot maritime planning area along with some planned uses

Source: Martin *et al.* (2011a).

Estonia

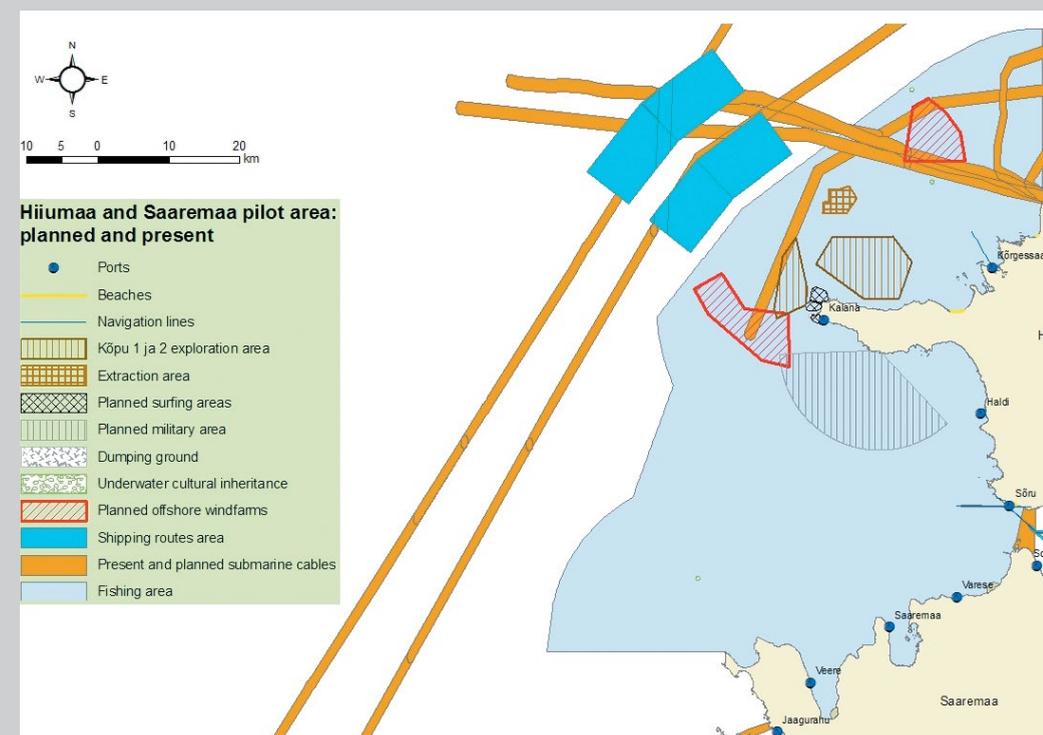
The maritime spatial planning activities for the western coast of Hiiumaa and Saaremaa and Pärnu Bay (Map 1 and 2) were undertaken under the BaltSeaPlan project in the years 2009-2011. These attempts have prepared ground for the actual planning that was started in autumn 2012 and is expected to deliver results in 2016³⁴.

The Pärnu Bay area in Estonia is both environmentally sensitive and under a growing pressure of human use. Pärnu Bay is located in the eastern part of the Gulf of Riga, it is a shallow coastal sea with high nutrient content and low salinity (0-5,8 PSU).

For the Bay, the planning process (Martin *et al.* 2011a) covered stocktaking, the identification of future uses, and the analysis of conflicts and preparation of measures for conflict solving. The stocktaking covered the uses such as recreation, fisheries, offshore wind energy, mining and sea transport. The planning process ended with the identification of conditions for the establishment of new uses, for instance, offshore wind farms or military areas.

The sea area around the Hiiumaa and Saaremaa islands in Estonia is both environmentally sensitive and under a growing human use pressure. The human use pressure is, however, much lower than

³⁴ In October 2012, the Government of Estonia initiated maritime spatial plans for two marine areas in Estonia: marine areas around Hiiumaa Island (territorial waters) and marine areas around Pärnu Bay (territorial waters). The plans are being prepared in accordance with the Estonian Planning Act.



Map 2. Legally ensured human uses of the marine area of the Hiiumaa and Saaremaa pilot maritime planning area along with some new interests

Source: Martin *et al.* (2011b).

in Pärnu Bay, and also the environmental conditions are different – it is an open, deep sea with the salinity of 5-7.2 PSU. The main conflicts are related to the planned wind farms and their potential impact on wave conditions (windsurfing), the view from coast and birds. In addition, a conflict between trawling and coastal fisheries (lack of fish in coastal areas) and conflicts between the planned wind farms and fisheries were identified.

Like in the case of Pärnu Bay, the planning process also covered only stocktaking, conflict analysis and the identification of future uses (Martin *et al.* 2011b). The planning process ended with the identification of conditions for the establishment of new uses, for instance, military areas.

For both cases the planning process was led by the Estonian Marine Institute of the University of Tartu and the Baltic Environmental Forum (BEF) Estonia. One should note that the actual spatial plans have not been prepared within the frame of the aforementioned planning effort. The planning methodology was only partially in line with the proper process of planning as established by the Estonian Planning Act (only some initial steps implemented). Moreover, the planning process has not been carried out by institutions that hold the respective planning competence. Therefore, it should be mainly treated as a stocktaking exercise and the stakeholders' mobilisation process starting a debate about the future use of the aforesaid important maritime areas. The planning process in both cases did not have any legal consequences but provided an input to the legally binding planning effort started in 2012.

Finland³⁵

In 2012, a Maritime Policy Division was established under the Prime Minister's Office of Finland, also dealing with MSP. The Ministry of Environment carried out a basic study on MSP in Finland in 2013³⁶.

In Finland, the planning of the sea is possible under the existing legislation on spatial planning. Therefore, the term 'maritime spatial plan' has not yet been introduced into the Finnish legislation. The land use planning mandate belongs to municipalities. Municipalities are in charge of local plans, but they have formed regional councils for drafting regional plans among other things. Both local and regional plans can be drafted for territorial waters, but they have different roles and guidance.

Regional land use plans are drafted by regional councils, whose members are representatives from municipalities. A regional land use plan sets out a general framework for the more detailed local plans, which are prepared by municipalities. A regional council must also ensure that municipal planning promotes the implementation of the national land use guidelines.

The regional land use plans are presented in the form of maps at scales of between 1:100 000 and 1:250 000, drawn up and labeled according to official guidelines and accompanied by planning orders. Land use designations and planning reservations shown on the map provide a concrete spatial expression of the regional development strategies prepared by the Regional Council. They are legally binding for detailed local plans of municipalities and ensure that municipal plans are in line with regional strategies and national guidelines.

A regional plan covers all issues effective planning solutions to which cannot be developed at the local level alone. The plan directly controls land uses in selected areas through conditional building restrictions and protection orders, thereby limiting construction and other land uses that would endanger valuable environmental or cultural features.

Although regional land use plans are legally binding, they still leave plenty of scope for municipalities to resolve local land use and development issues. This concerns also planning of the territorial waters. Municipality planning in sea areas is often carried out within smaller subareas (mostly land areas/islands) and is generally related to specific topics such as housing, energy (offshore wind farms), recreation and others.

According to the Finnish land use and building act, regional and local plans cover only the territorial sea area. However, although non-legally binding, planning was carried out in the Kymenlaakso region also for the exclusive economic zone (EEZ). Due to many current inventory initiatives (such as the Finnish Inventory Programme for the Underwater Marine Environment) a sufficient amount of environmental data was available on underwater issues, which enabled to enlarge the "traditional" planning scope significantly.

As there is a long tradition of regional planning in the territorial sea areas in Finland, the existing legislation and planning traditions enable authorities to deal efficiently with many central questions and challenges related to MSP and ICZM. In mid-2013 nine coastal regional plans were under preparation, fifteen coastal regional plans had already been ratified and three were awaiting ratification. The ratified regional plans cover almost all territorial waters in Finland. However, the situation in Åland Islands is slightly different. This is an autonomous area and has its own legislation. Municipalities are in charge of planning marine areas in Åland. They can draft plans on marine waters according to their land use and planning legislation. At the moment, they do not have plans

³⁵ The text about Finland was reviewed and co-drafted by Frank Hering.

³⁶ Paldanius 2013

on marine waters, and there are no MSP processes or planning processes on marine waters going on in Åland Islands.

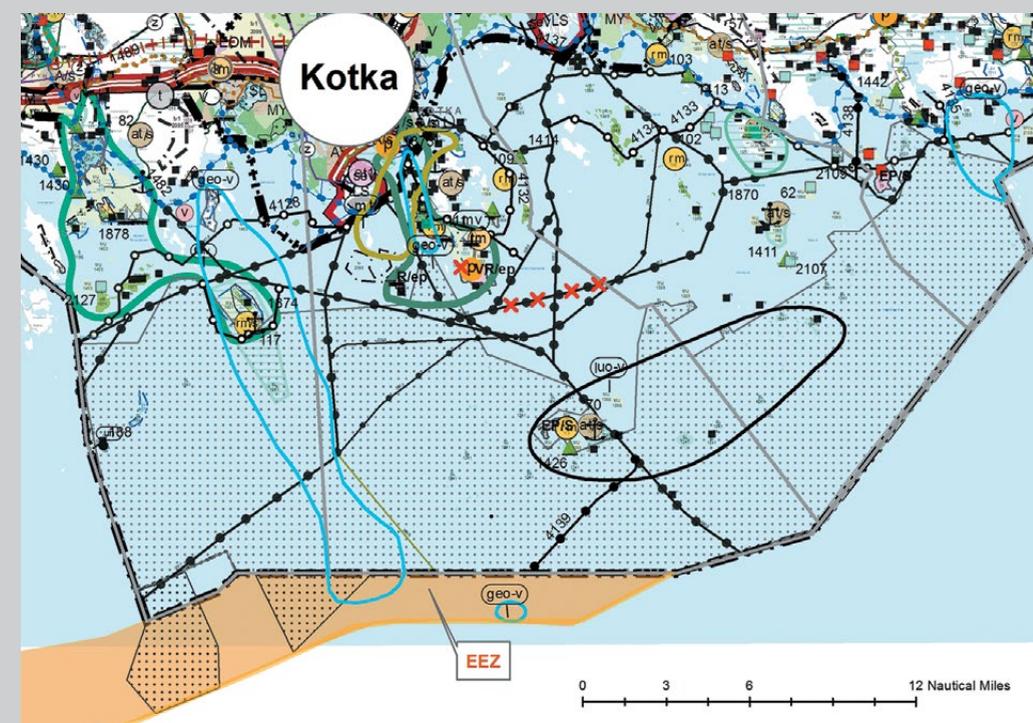
The Regional Council of **Kymenlaakso**³⁷ accepted in autumn 2013 a regional plan that focuses on MSP (Regional Plan of Kymenlaakso, Trade and the Sea Area, Map 3). The city of Kotka – the largest coastal city of the Kymenlaakso region is located about 120 km east of Helsinki. The region shares a common border with Russia. Kymenlaakso Regional Plan on Trade and the Sea Area will be confirmed in the near future by the Ministry of Environment.

The regional spatial plan for the Kymenlaakso region consists of various parts and was prepared in several phases. The Regional Plan on Trade and Sea is a complement and update of previous regional plans. Opportunity to use phased (divided into stages) or sub-regional land use plans provides a great deal of flexibility to the regional planning authorities in their planning activities and may significantly speed up planning processes. Nevertheless, the planning authority must also strive to keep the comprehensive land use planning system for the whole region up to date.

The plan is of a comprehensive nature. It is a strategic plan which underlines spatial priorities and reserve space for their implementation. Thus it also contains general subareas not regulated by the plan. The plan includes a graphic and a text part (commentary).

Map 3. Southern parts of the Regional Plan of Kymenlaakso

Source: Regional Council of Kymenlaakso.



³⁷ The Regional Plan of Kymenlaakso is only an example illustrating how regional planning in Finland also covers territorial waters adjacent to the Finnish counties.

As far as the sea space is concerned, the regional plan addresses, among others, the following land uses: ports and harbours, military areas, nature protection areas, landscape protection areas, sites for wind energy production, different types of recreation and tourist areas, development zones and the like. The plans also contain shipping routes and boating routes.

Besides, the Regional Plan of Kyrenlaakso contains designated areas for aquaculture and planning orders related to migrating fish stocks. Planning orders covering the whole region also take into account flooding risks connected to climate change. Power lines, telecommunication cables, water pipelines as well as filling areas for shipping route maintenance have been shown in detail in the commentary to the plan, but not on the map.

In the Regional Plan of Kyrenlaakso some completely new MSP-related land use designations have been agreed on: large areas of significant underwater biodiversity and areas of significant underwater geological diversity as well as submarine cultural heritage sites are shown on the map. The said areas were accompanied by planning orders. New Nature 2000 sites located in the EEZ were also included in the planning processes.

Germany

The **Spatial Development Programme of Mecklenburg-Vorpommern** was extended off shore (Map 4) during the realignment in 2003-2005 making use of the resources and know-how obtained under the BaltCoast project. Mecklenburg-Vorpommern is the first German coastal state that has integrated designation for single uses in the 12 nm zone into its regional development programme. The extended programme was adopted in 2005 and became a legally binding act. The plan was adopted by the ordinance of the Ministry of Transport, Building and Regional Development of Mecklenburg-Vorpommern of 2005. Mecklenburg-Vorpommern has a territorial sea of about 5700 km² – about a fourth the size of its land area³⁸ – and a coastline of about 380 km³⁹. About 900 000 people live in its administrative districts along the coast.

The plan covers both sea and land, that is, the whole territory of the Mecklenburg-Vorpommern. The preparatory work for the maritime part of the plan was partly carried out under the BaltCoast project. This was the first BSR spatial plan of supralocal character covering sea space. The process of amending the plan was started in 2009.

The plan is of a strategic character. It is a tool for balancing the different interests of sea space use. The Spatial Development Programme Mecklenburg-Vorpommern includes a graphic and a text part. The graphic part is done in scale 1:250 000 in ETRS 89 (GRS80) UTM, Zone 33N. Both parts contain an outline of the principles of development and use of sea space by users, and determine priorities for some parts of the space. The Spatial Development Programme Mecklenburg-Vorpommern contains:

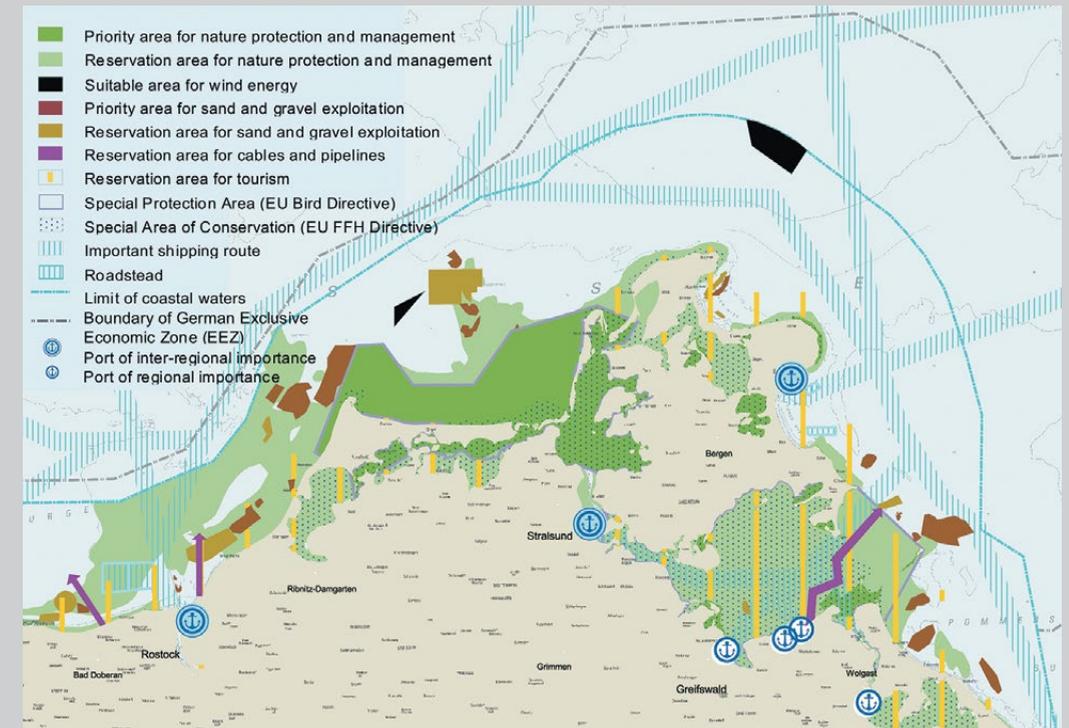
- planning objectives (legally binding),
- planning principles (guidelines that need to be particularly considered in the decision making process).

The update of the plan is expected soon, and the work on that is at an advanced stage.

The **Spatial Plan for the German EEZ of the Baltic Sea** (Map 5) was completed in 2009. The Federal Minister of Transport, Building and Urban Affairs mandated in 2005 the Federal Maritime and Hydrographic Agency (*Bundesamt für Seeschifffahrt und Hydrographie* (BSH)) to develop the marine spatial plan and an environmental report for the EEZ. The first stage was the preparation

³⁸ As the borderline with Schleswig-Holstein is not defined it is very difficult to fix this area.

³⁹ Pure coastal border without bays or lagoons: 340 km.



of the scoping report (with the involvement of stakeholders). The plan was prepared in the years 2007-2009 as a multiple-use maritime spatial plan. It covers the German exclusive economic zone of the Baltic Sea (ca 4,500 km²), that is, the sea area adjacent to the sea waters of Poland, Sweden and Denmark. This was the first maritime spatial plan covering an EEZ in Europe.

The plan is of a binding nature. It was adopted by the legal ordinance of the Federal Minister of Transport, Building and Urban Affairs in 2009.

The plan is of a strategic character. It is a tool for balancing the different interests of sea space use as in the case of the plan of Mecklenburg-Vorpommern. The plan includes a graphic and a text part. The graphic part is done in scale 1:400 000 in WGS84, Mercator projection (54°N). The text part contains an outline of the principles of development and use of sea space by users and indicates priorities for some parts of the space. As in the previous case, the plan contains the following:

- planning targets (legally binding),
- planning principles (guidelines that need to be particularly considered in the decision making process).

The link to the plan is available at: http://www.bsh.de/en/Marine_uses/Spatial_Planning_in_the_German_EEZ/index.jsp.

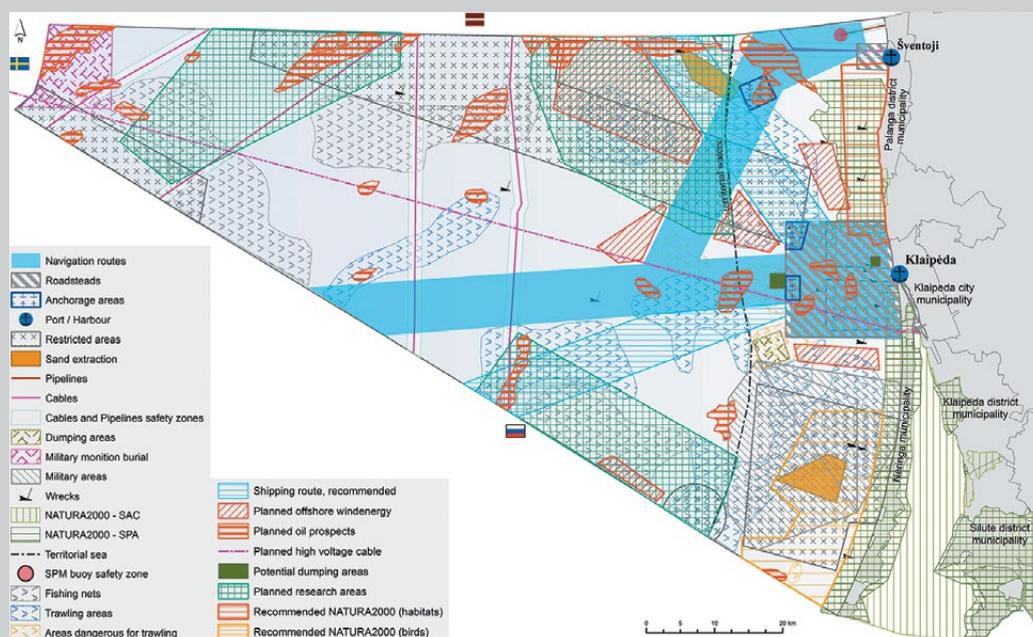
Map 4. Map of the Spatial Development Programme Mecklenburg-Vorpommern

Source: Heinrichs et al. (2005).

Lithuania⁴¹

The first MSP activities that can be regarded as **planning of the Lithuanian sea** have been undertaken under the BaltSeaPlan project in the years 2009-2011. The planning activities have been focused on the extension of the terrestrial General Plan of the Republic of Lithuania by supplementing it with functional zoning of marine space. The process included the following activities:

- assessment of national legal framework related to the development of maritime activities and use of marine resources;
- setting of MSP-related national strategic targets;
- defining of sectoral demands and interests of coastal communities;
- creation of an MSP-oriented database;
- mapping of the current and planned sea uses (Map 7);
- screening the existing and potential sea use conflicts;
- identification of stakeholder groups; and
- awareness raising – key stakeholders have been introduced to an integrated MSP concept through a variety of meetings, seminars and bilateral contacts.



Map 7. Current and planned sea uses in the Lithuanian maritime area

Source: Blažauskas (2011).

The sea area of the Lithuanian maritime space is around 7000 km² (Curonian Lagoon included). The area is delimited by the Latvian sea waters from the north, Russian sea waters (Kaliningrad Oblast) from the south and Swedish EEZ from the west. The results of the activities carried out under BaltSeaPlan (Blažauskas 2011) prepared the ground for the official planning process that

⁴¹ Prepared by Nerijus Blažauskas, CORPI.

was launched for the entire Lithuanian maritime space including territorial waters and the EEZ in 2012, as a response to growing pressure on the sea space in Lithuania. The existing legislation was amended in order to render it applicable for MSP. EU initiatives on integrated maritime policy and also worldwide initiatives (those by UNESCO) were taken into consideration. This initiative was embedded in the Action Plan of the Strategy of Baltic Sea environment protection 2010-2015.

In 2011 the Ministry of Environment of the Republic of Lithuania began the expansion of the existing (land based) National General Plan of Lithuania to include a marine-related part covering territorial waters and the EEZ. The planning has been carried out using the currently existing terrestrial planning documents and methodology developed during implementation of the BaltSeaPlan project. The planning work was to be finished by the end of 2013. The scope of the project includes three phases:

- I. Assessment of the current state of the sea use and the identification and forecast of developments trends.
- II. Formulation of the Spatial Development Concept(s) for the Lithuanian maritime space including a set of spatial development indicators, SEA procedures and compulsory public involvement.
- III. Consultation and involvement process in order to finalise the marine part of the National General Plan.

The number of maritime activities currently in the planning stage and large-scale strategic projects related to a more extensive use of the Lithuanian maritime space show that the anthropogenic pressure will increase dramatically in the coming years. Some of the activities envisaged might have a cross-border character and should be subject to a transnational consultation process. Therefore, under the PartISEA project, cross-border consultations will be organised with Latvia and Russia. The presentation to and the final acceptance by the Parliament (Seimas) and the Government of Republic of Lithuania of the Plan will be the responsibility of the Ministry of Environment.

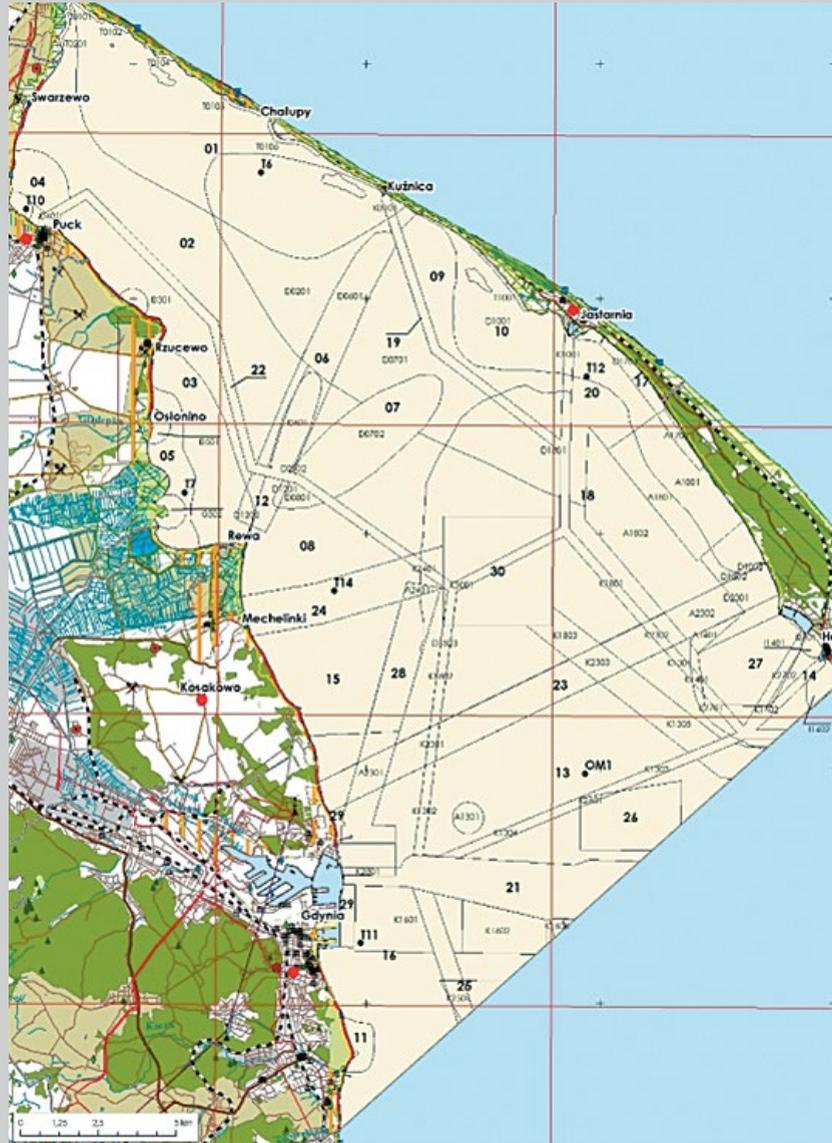
Poland

The **Pilot Maritime Spatial Plan for the Western Part of the Gulf of Gdańsk** (Map 8) was prepared under the PlanCoast project in the years 2008-2009. The plan covers a part of internal sea waters of the Gulf of Gdańsk. The area has the surface of about 40 550 ha, situated to the west of the line connecting the head of the Hel Peninsula with the Gdynia/Sopot boundary, with the exclusion of the area of harbours of Gdynia, Puck, Jastarnia and Hel, closed by breakwaters and submitted to limitations concerning land areas.

Due to legal constraints the plan is still treated as a draft. Irrespective of its non-binding nature, the plan still has been used by the Maritime Administration as the best available knowledge base for guiding its management decisions.

The draft plan for the western part of the Gulf of Gdańsk (Zaucha 2009; 2010; Zaucha and Ścibior 2009) is of comprehensive nature. It includes a graphic and a text part. The draft drawing of the plan has been made in a 1:25 000 scale, under the National Coordinate System 1992, with the possibility of easy transformation to the representation required in nautical charts. The draft text of the plan comprises, in particular, provisions concerning the principles of management and use for water areas determined in the plan. On the one hand, the plan is a structural one, as it provides a diagnosis of spatial conditions of development, specifies components of the spatial system and their mutual relationships and points out to their desired shape in a vast sea area (equal to the territory of 2-3 rural communes). On the other hand, like local land use plans, it lays down detailed conditions, requirements and certain specific limitations on the utilization of sea space divided in small sea basins (subareas). This makes it unique among the BSR maritime plans.

The development of formal (legally binding) maritime spatial plans for territorial waters and the



Map 8. Map of the Pilot Maritime Spatial Plan for the Western Part of the Gulf of Gdańsk

Source: Zaucha (2009).

exclusive economic zone under Polish jurisdiction was started in November 2013 with a joint announcement by the Directors of three Maritime Offices responsible for the drawing up of such plans in accordance with Polish legislation⁴². The planning process is divided into two stages: inventory (and modelling) and actual planning. The plan will cover the entire area of Polish sea

⁴² Announcement in the national language is available on the website of the Ministry of Transport, Construction and Maritime Economy at: http://www.transport.gov.pl/2-482d6d0017bbe-1796680-p_1.htm [retrieved on 18th of November 2013].

waters from the baseline seawards. For territorial waters separate plans (drawing on the experience of the Pilot Maritime Spatial Plan for the Western Part of the Gulf of Gdańsk) will be prepared. The process will be coordinated by the Director of the Maritime Office in Gdynia.

Russia⁴³

Russian maritime spatial planning is still in a conceptual phase. The development of MSP (the offshore area) in Russia has been undergoing several stages and still is far from completion. The first attempts to plan the use of the Neva estuary waters and adjacent parts of the Gulf of Finland were taken in the mid-1990s (Usanov 2003), but they have not reached the stage of practical application. In the first decade of the 2000s, the Department of Integrated Coastal Zone Management (ICZM) was established in the Russian State Hydrometeorological University (RSHU), where the fundamentals of this activity in the Russian Federation were developed (Plinka 2009). In 2006-2008, based on studies undertaken on ICZM, the Kaliningrad experts proposed the principles and structure of geographic information system for marine planning for the South-Eastern Baltic Sea⁴⁴, later supplemented and generalised up to the federal level in RSHU (Anonymous 2012). During these years, some pilot activities were performed to address MSP issues concerning the Russian waters of the northern and Far East seas (outside the BSR).

However, all the studies pursued a scientific approach and could not serve as the basis for the inclusion of MSP into the legislation of the Russian Federation. Fundamental changes in this direction emerged only after the development and adoption of the Russian Federation Maritime Activity Strategy for the period until 2030 (RF 2010). According to the plan for the implementation of the provisions set forth in the Strategy, a MSP toolkit (combining the legal and the methodological parts) is to be developed within the framework of the "Global Ocean" Federal Target Program⁴⁵. In line with that assignment, propositions on Russian maritime spatial (offshore water area) planning toolkits should be linked to the relevant provisions of the EU requirements and conform to the Russian Federation territorial planning documents produced in accordance with the Urban Planning Code⁴⁶.

The toolkit developed under the Strategy includes propositions about the following:

- the division of responsibilities between the Russian Federation authorities of various levels;
- a special legal framework of MSP, including both new laws and by-laws of the Russian Federation and amendments to the existing legislation, for the introduction of MSP into the legal environment of the RF;
- a methodological base for MSP.

The draft toolkit (in its current shape) is based on both the domestic experience in spatial planning gained by scientists back in the Soviet Union, and the modern foreign experience of MSP, in particular, the expertise of the EU member states. Consequently, the proposals will apply an

⁴³ Elaborated by Andrey Dorofeevich Lappo (Андрей Дороевич Ланно) from the R&D Institute of Urban Planning (НИИГрадостроительства).

⁴⁴ Proceedings of the Conference "Integrated Management, Development Indicators, Spatial Planning, and Monitoring of Coastal Regions of the South-Eastern Baltic Sea", Kaliningrad, March 26-30, 2008.

⁴⁵ The execution of the study "Maritime spatial (offshore water area) planning toolkits development and propositions for their implementation regarding the Baltic Sea" in 2012, was delegated to R&D Institute of Urban Planning.

⁴⁶ Urban Planning Code of the Russian Federation defines the basic legal principles governing town planning activities, matters regulated by this piece of legislation, the subjects of town planning, and the powers of federal authorities, Federation subjects and local self-government bodies. Territorial planning tasks arise from the significance of the territory defined in the territorial planning documents, based on a multitude of economic, environmental and other factors, and aimed to ensure sustainable development of the territory, its engineering, transport and social infrastructure, and to ensure that the interests of citizens and their associations, subjects of the Russian Federation, and municipal entities have been taken into consideration.

ecosystem approach and will aim at:

- allocating clear responsibilities to authorities with regard to the planning and implementation of maritime activities in various parts of the sea space (internal waters, the territorial sea, the exclusive economic zone);
- setting up an inseparable connection between maritime and territorial planning;
- preparing methodical recommendations on MSP for different planning levels.

Pilot cases have been conducted in the Russian waters of the Gulf of Finland and the south-eastern part of the Baltic Sea to test the methodology proposed for the toolkit.

The next step in testing Russian laws on MSP would be their practical application within the framework of the joint maritime planning project in the Gulf of Finland, which is expected to be run by experts from three countries – Russia, Finland and Estonia, during the Year of the Gulf of Finland – 2014. This appears to be rather a complicated task, because of the necessity to actually reconcile the MSP principles and procedures followed by Russia and two EU countries in which legal and methodological basis for the application of MSP (in particular in the EEZ) has not yet been fully developed.

It is planned that the draft toolkit will be submitted to the Government of the Russian Federation for approval and submission to the Parliament (State Duma). The final content of the legal provisions on MSP will be agreed on by legislative authorities of the Russian Federation. The adoption of the MSP law might take several years.

Sweden⁴⁷

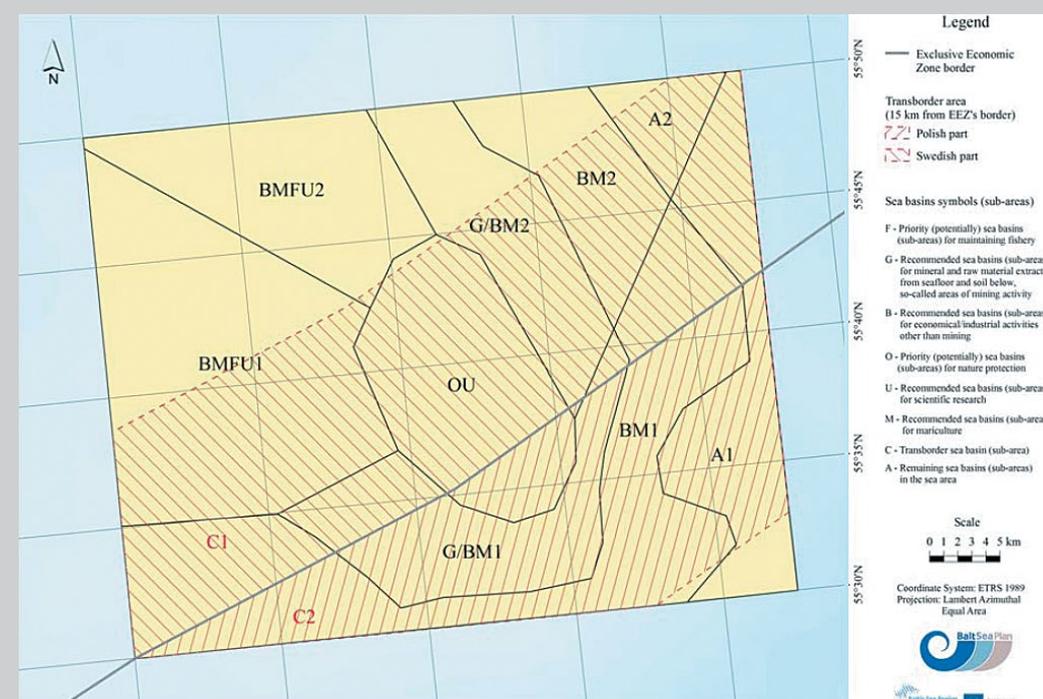
Municipalities in Sweden have the right and mandate also to plan the sea waters adjacent to their land territories, but only few of the municipalities have so far undertaken some planning initiatives covering their part of the territorial sea. The **Swedish maritime spatial planning** is in the phase of constructing a comprehensive legal and administrative system in support of planning for most of the Swedish territorial sea and the Swedish EEZ. In the recent years practical planning in Sweden took place mainly in the frame of the bilateral and multilateral pilot plans described below, with the focus on the Plan Bothnia Project. The work in Sweden on preparing a better legal environment for MSP was supported by a Swedish Commission on MSP in marine waters that was appointed by the Government in 2009. The Commission proposed the content of a new MSP Act as well as measures and guidelines for an improved system to provide a knowledge base (data and information) for the MSP. Currently the work is underway on a governmental bill. The Commission's proposal has been that (i) the National Plan⁴⁸ will cover all waters, starting from the baseline seaward until the EEZ, (ii) within the framework of the plan municipalities will develop their comprehensive plans for the territorial sea, which have to take into account national interests stipulated in the National Plan, (iii) MSP shall be simultaneously developed for the following three areas: the Gulf of Bothnia, the Baltic Sea Proper, and Skagerrak and Kattegat. The maritime plans are proposed to be adopted by the Government. A new public authority – the Swedish Agency for Marine and Water Management (SWAM), was launched in summer 2011 with the mandate to elaborate the National Plan.

⁴⁷ Based on the materials of the joint HELCOM-VASAB MSP Working Group.

⁴⁸ Please note that there is no National Spatial Plan in Sweden on land.

Bilateral and multilateral plans

The **Pilot maritime spatial plan for the Southern Middle Bank area** (Map 9) was prepared under the BaltSeaPlan project in the years 2010-2011. The area of the plan covers a part of the sea area of the Southern Middle Bank located right in the middle of the Baltic Sea. The planned sea area is delimited by the coordinates of its corners: A: 55°50'N, 17°00'E; B: 55°50'N, 17°45'E; C: 55°30'N, 17°45'E; D: 55°30'N, 17°00'E.



The surface area is about 1751.5 km² (in accordance with azimuthally equal-surface Lambert projection), and the bank is located in the Polish and Swedish exclusive economic zones.

Due to legal constraints the plan is still treated as a draft one. Although being of non-binding nature, it has been used by the Maritime Administration in Poland, as the best available knowledge base, for guiding its management decisions.

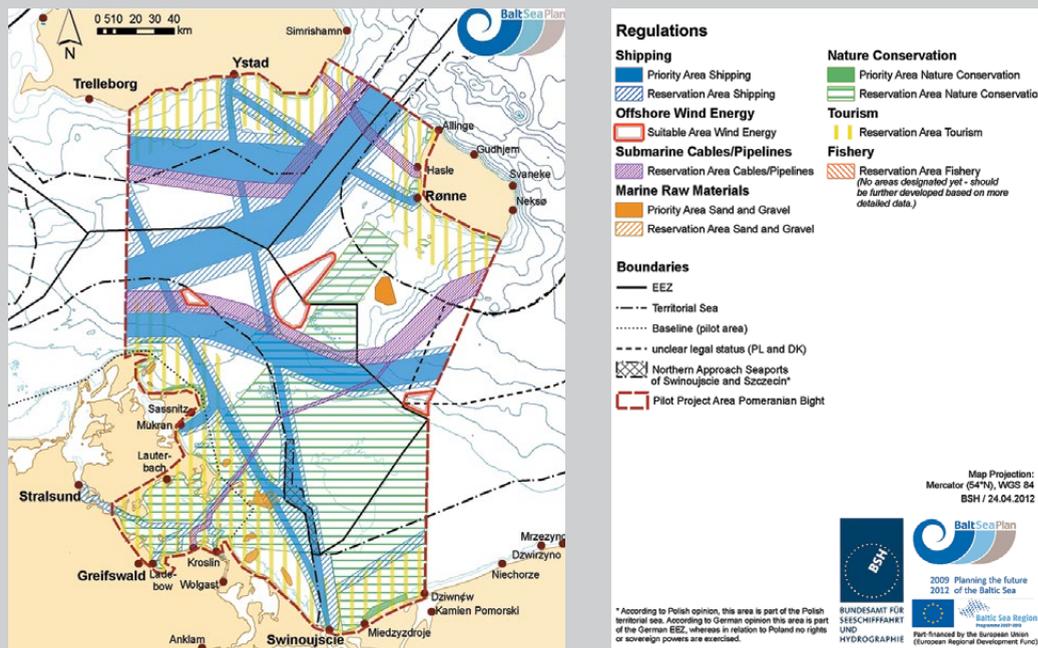
The draft spatial plan for the Southern Middle Bank sea area (Zaucha and Matczak 2011) is of a strategic character. It is a tool for balancing the different interests of sea space use. It is a structure plan, because it diagnoses the spatial conditions of development, determines components of the spatial system and their relationships/interactions and indicates their desired "shape". In principle, the plan awards priority for some uses and ensures cohesion of the whole system of proposed solutions. The draft spatial plan includes a graphic and a text part. The graphic part is done in scale

Map 9. Location of the pilot maritime spatial plan for the Southern Middle Bank

Source: Zaucha and Matczak (2011).

1:200 000, in azimuthally equal-surface Lambert projection (ETRS 1989 LAEA), with the possibility of easy transformation to projections required for sea maps. The textual part contains the outline of the principles of development and use of sea space by users and formulates priorities for some parts of the space, as well as limitations/restrictions and permitted uses within the sea basins (subareas) designated in the plan. Restrictions are introduced only in a few cases, and only with the objective of assuring the above mentioned cohesion.

The **Pilot Project Pomeranian Bight/Arkona Basin** (Map 10) was prepared under the BaltSeaPlan project in the years 2009–2011. The area of the Pilot Project Pomeranian Bight/Arkona Basin comprises the parts of the territorial sea and the EEZ of four countries: Denmark, Sweden, Poland and Germany.



Map 10. Drawing of the draft maritime spatial plan for the Pomeranian Bight

Source: Käppeler *et al.* (2011).

The planned area encompasses approximately 14 100 km² – its outlines are defined by a line running from South-Western Bornholm southwards to the Wolin Peninsula on the western coast of the Polish County of Zachodniopomorskie, westwards to Germany – Mecklenburg-Vorpommern, along the coast of the Usedom Peninsula and the Island of Rügen to its northernmost headland – Arkona, then northwards to and along the southern coast of Skåne in Sweden, and finally, crossing the Traffic Separation Scheme/IMO Shiproute Bornholms, back to Bornholm.

It is one of the first draft maritime plans worldwide encompassing the sea areas of four states. The planning is being conducted as a project in itself, and thus is of a non-binding nature. Nevertheless, some partners will use the outcomes of the project as input into their preparation of legally binding plans within their area of responsibility and competence. The plan with its transboundary approach

thus promotes a more comprehensive and cohesive planning for the whole area, regardless of the actual different planning systems and stages.

The draft maritime spatial plan for the Pomerania Bight (Käppeler *et al.* 2011) is of a strategic character and has been prepared in line with the methodology used for the two German plans already described. The plan is a tool for balancing the different interests of sea space. The plan includes a graphic and a text part. The graphic part is done in scale 1:2 000 000 in Mercator (54°N) projection (WGS84). The text part contains an outline of the principles of the development, use and protection of sea space, and determines priorities for some parts of the space. The plan addresses, for example, conflicts between shipping and wind energy, and between tourism and nature conservation. It also includes recommendations regarding issues not to be regulated by the provisions of the plan itself, but within other fields of policy and sectoral planning⁴⁹.

The **Pilot Marine Plan for the Bothnian Sea** (Map 11) was prepared within the Plan Bothnia project in 2010–2012. It was financed by the EU Commission as a MSP preparatory action. The Bothnian Sea (Swedish: Bottenhavet, Finnish: Selkämeri) is part of the Baltic Sea delimited from the North by the Northern Quark and from the South by Åland archipelago, Southern Quark and the Archipelago Seas. The surface area of the Bothnian Sea is approximately 65 000 km² and is shared by Sweden and Finland (both EEZ and territorial waters).

Due to legal constraints the plan is of non-binding nature, and treated as a testing ground for preparation of the EEZ planning both in Sweden and Finland. It was prepared in cooperation between Swedish and Finnish stakeholders under the leadership of the HELCOM Secretariat (HELCOM 2012).

The plan is of a strategic character. It is a tool for balancing the different interests of sea space use. It is a structure plan, because it diagnoses the spatial conditions of development, determines the components of the spatial system and their relationships/interactions and indicates their desired “shape”. The plan includes a graphic and a text part. The text part is short, only on three pages, and outlines aims and concrete recommendations for different types (fourteen altogether) of sea sub-areas identified in the plan.

Norway

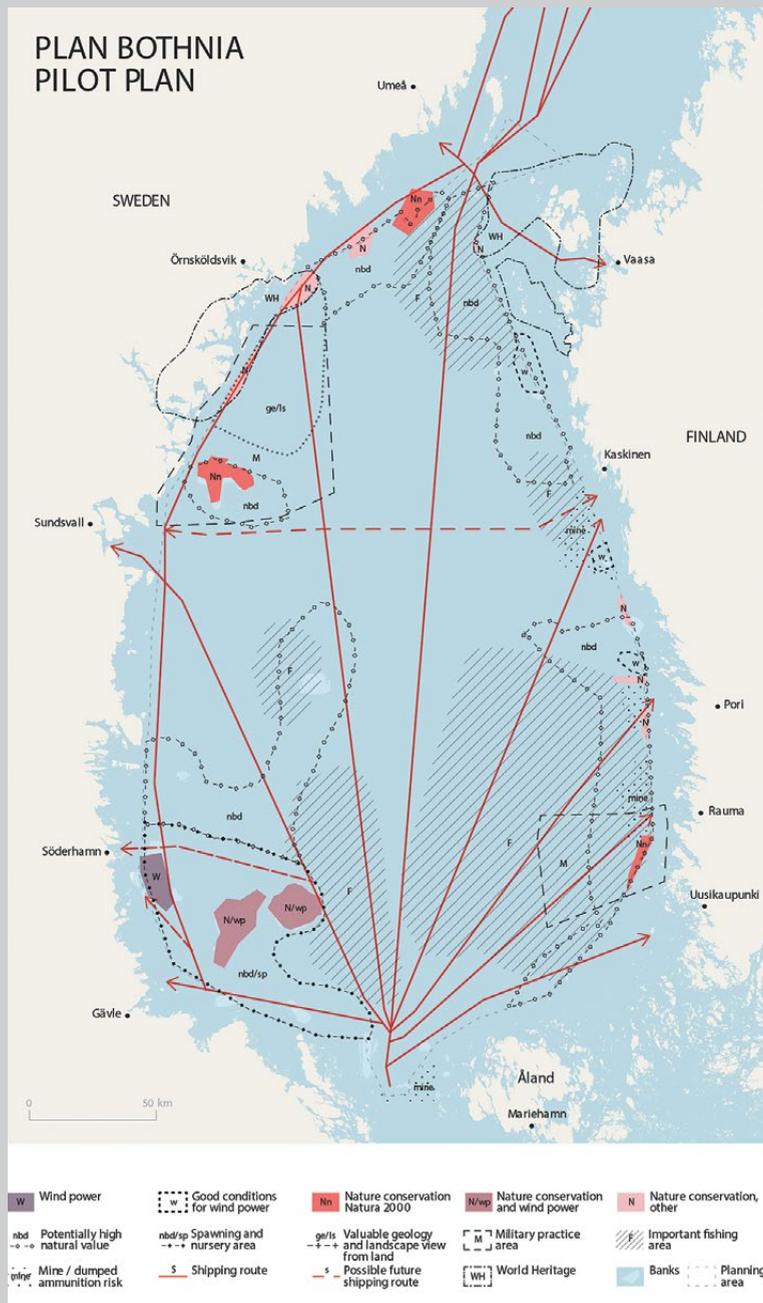
Maritime plans were developed in Norway, which, however, lies outside Baltic Sea area (Map 12).

Although they share a lot of common features with the above-described maritime spatial plans, their focus is on integrated management of the marine environment (cf. Olsen *et al.* 2007). They provide a framework for the sustainable use of natural resources and goods derived from the sea, at the same time maintaining the structure, functioning and productivity of the ecosystems of the planned areas. Two plans have already been developed:

- The Lofoten-Barents Sea Plan covering the Barents Sea and the sea areas of the Lofoten Islands (established in 2006 and revised in 2011).
- The Norwegian Sea Plan (established in 2009).

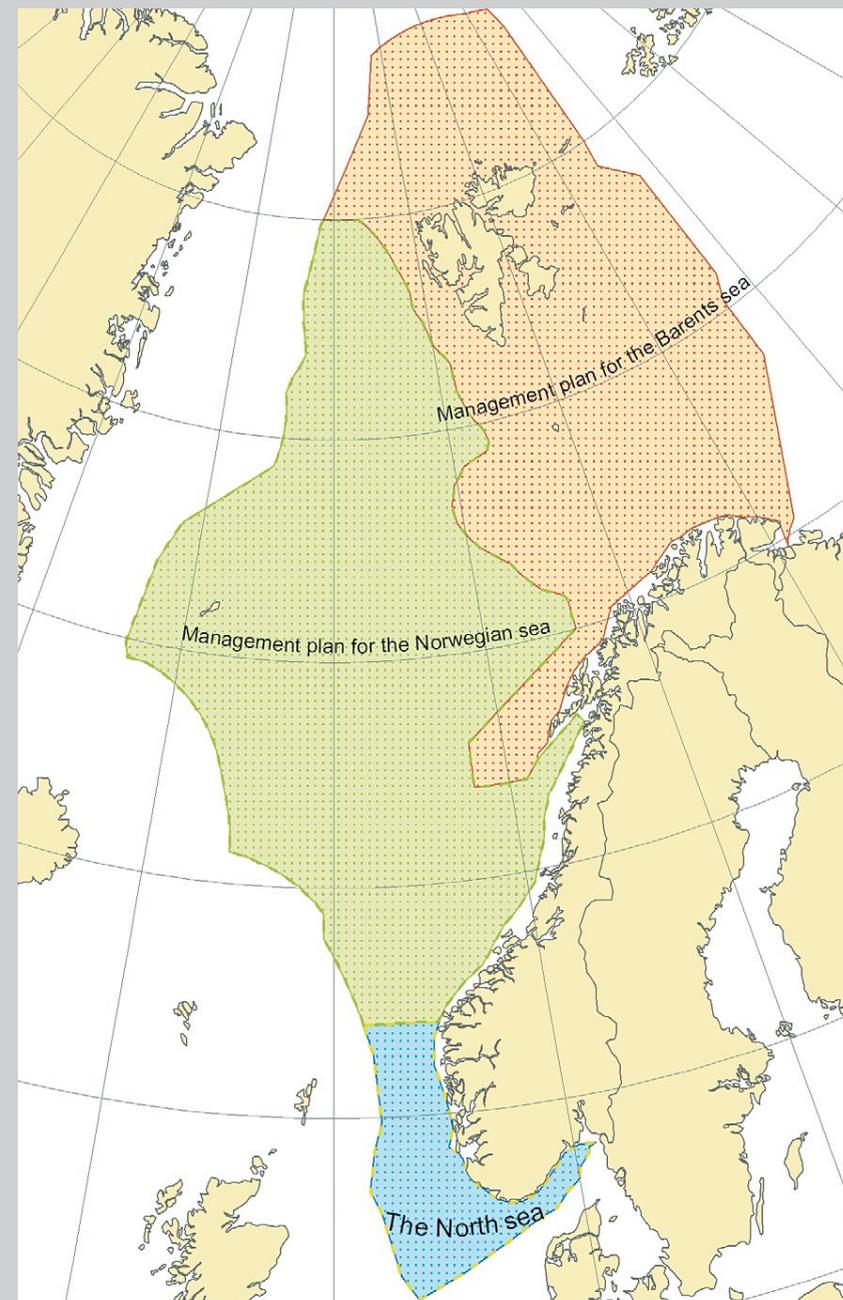
The third one, that is, the plan for the North Sea is under development and was expected to be ready in 2013. The plans are of non-binding character and were developed without a specific MSP legal framework. However, due to voluntary compliance of all public authorities, they fulfil their guiding and management functions. One of the most spectacular successes of the planning

⁴⁹ The planning activities resulted in many others meaningful results and outputs such as testing fishery issues under MSP and the MARXAN applications. For details see the book on BaltSeaPlan findings (Schultz-Zehden, Gee 2013).



Map 11. Drawing of the draft maritime spatial plan for the Bothnian Sea

Source: HELCOM (2012).



Map 12. Areas of Norwegian integrated management plans

Source: PartISEApate project – provided by Erik Olsen.

exercise was moving shipping routes by decision of the International Maritime Organisation (IMO⁵⁰) that originated from the analysis and provisions of the said plans.

Summary

The above-presented plans and planning efforts are diverse and of different nature and character. Therefore, it would be extremely difficult to make a BSR-relevant summary of them. The overall picture of the Baltic MSP is hardly uniform, with a few countries taking a leading position. Nevertheless, the general tendency towards a more intensive use of MSP is clear and unquestionable.

The depth of scope and ambition of the planning efforts (in autumn 2013) is presented in Table 2 applying the planning process typology developed by Lars Emmelin⁵¹.

Table 2. The nature of the BSR maritime spatial plans

Source: Drawing of own elaboration on typology developed by Lars Emmelin.

Category	Explanation	Plans
INFORMATIVE PLANNING	The main goal of the planning effort is to map (or identify) resources, pressures and demands on resources, conflicts, vulnerabilities (sensitive mapping) and risks (contingency planning).	<ul style="list-style-type: none"> • Hiiumaa and Saaremaa and Pärnu Bay MSP • Pilot Marine plan for the Bothnian Sea • Planning of the Lithuanian sea under BaltSeaPlan • Pilot Project Pomeranian Bight/Arkona Basin
STRATEGIC VISIONARY MAPPING	The main goal is to inspire other actors that shape spatial development with their actions; however, the planning agency has no (or sufficient) authority over them.	<ul style="list-style-type: none"> • Pilot maritime spatial plan for the western coast of Latvia and the adjacent waters • Pilot maritime spatial plan for the western part of the Gulf of Gdańsk⁵² • Pilot maritime spatial plan for the Southern Middle Bank area⁵³
REGULATORY PLANNING	The planning agency has economic or regulatory authority over sea users, and the plan becomes a vehicle for the implementation of publicly agreed goals and priorities, e.g. with regard to the use of the sea resources, with regard to nature conservation or with regard to conflict resolution.	<ul style="list-style-type: none"> • Regional plans in Finland covering territorial waters • Spatial Development programme of Mecklenburg-Vorpommern • Spatial plan for the German EEZ of the Baltic Sea • Expanding the National General Plan of Lithuania offshore • First steps in the MSP process (mainly the inventory or conceptual stage) in Estonia, Latvia, Poland and Sweden

As shown in the table, the majority of the planning efforts should be treated as informative planning or strategic visionary mapping. However, the shift towards regulatory planning is also evident. The majority of the plans listed above are of modern character. They have no ambition to create the maritime space but rather are used as a vehicle for mediating between the sea space users. Some of them, like the Latvian or Polish plans, even attempt to look forward and to manage not the space itself but rather initiate changes in the use of the space or at least discussions on the subject.

50 The IMO is a specialised agency of the United Nations with 170 Member States. The IMO's main task is to develop and maintain a regulatory framework for shipping and its efficiency, safety, as well as environmental impacts.

51 At the conference organised by the Baltic University Programme on MSP in Szczecin in 2012.

52 The plan falls between visionary mapping and regulatory planning, since it has been used by the Maritime Administration of Poland in its decisions guiding the use of the sea space.

53 *Ibidem*.

CHAPTER 2: BALTIC SEA BROAD-SCALE MARITIME SPATIAL PLANNING PRINCIPLES

HELCOM and VASAB have both adopted the following ten principles for MSP, which are designed to provide guidance for achieving better coherence in the development of MSP systems in the BSR. Those principles were developed by the joint HELCOM-VASAB MSP Working Group and adopted by HELCOM Heads of Delegations and VASAB Committee on Spatial Planning and Development of the BSR in 2010.

1. **Sustainable management.** Maritime Spatial Planning is a key tool for sustainable management by balancing between economic, environmental, social and other interests in spatial allocations, by managing specific uses and coherently integrating sectoral planning, and by applying the ecosystem approach. When balancing interests and allocating uses in space and time, long-term and sustainable management should have priority.
2. **Ecosystem approach.** The ecosystem approach, calling for a cross-sectoral and sustainable management of human activities, is an overarching principle for Maritime Spatial Planning which aims at achieving a Baltic Sea ecosystem in good status – a healthy, productive and resilient condition, so that it can provide the services humans want and need. The entire regional Baltic Sea ecosystem as well as sub-regional systems and all human activities taking place within it should be considered in this context. Maritime

Spatial Planning must seek to protect and enhance the marine environment and thus should contribute to achieving Good Environmental Status according to the MSFD and HELCOM Baltic Sea Action Plan.

3. **Long-term perspective and objectives.** Maritime Spatial Planning should have a long term perspective in relation to the goals it seeks to attain and to its environmental, social, economic and territorial effects. It should aim for long-term sustainable uses that are not compromised by short term benefits and be based on long term visions strategies and action plans. Clear and effective objectives of Maritime Spatial Planning should be formulated based on these principles and national commitments. The establishment of a legal basis for Maritime Spatial Planning in the Baltic Sea countries should be investigated including vertically and horizontally well coordinated decision making processes concerning sea space uses to ensure efficient implementation of maritime spatial plans and to provide for an integrated sea space allocation process when such plans do not yet exist.
4. **Precautionary principle.** Maritime Spatial Planning should be based on the Precautionary Principle. This implies that planning has an obligation to anticipate potential adverse effects to the environment before they occur, taking into account Article 3 of the Helsinki Convention, and take all precautionary measures so that an activity will not result in significant harm. A similar, but distinct, forward-looking perspective should be applied with respect to the economic and social dimensions.
5. **Participation and transparency.** All relevant authorities and stakeholders in the Baltic Sea Region, including coastal municipalities as well as national and regional bodies should be involved in maritime spatial planning initiatives at the earliest possible stage and public participation should be secured. Planning processes should be open and transparent and in accordance with international legislation.
6. **High quality data and information base.** Maritime Spatial Planning should be based on best available and up to date comprehensive information of high quality that to the largest extent possible should be shared by all. This calls for close cooperation of relevant GIS and geo-statistical databases, including the HELCOM GIS, monitoring and research in order to facilitate a trans-boundary data exchange process that could lead to a harmonised pan-Baltic data and information base for planning. This base should cover historical baselines, present status as well as future projections of both environmental aspects and human activities. It should be as comprehensive, openly accessible and constantly updated as possible and compatibility with European and Global initiatives should be ensured.
7. **Transnational coordination and consultation.** Maritime spatial planning should be developed in a joint pan-Baltic dialogue with coordination and consultation between the Baltic Sea states, bearing in mind the need to apply international legislation and agreements and, for the HELCOM and VASAB EU member states, the EU *acquis communautaire*. Such dialogue should be conducted in a cross-sectoral context between all coastal countries, interested and competent organizations and stakeholders. Whenever possible maritime spatial plans should be developed and amended with the Baltic Sea Region perspective in mind.
8. **Coherent terrestrial and marine spatial planning.** Spatial planning for land and for the sea should be tightly interlinked, consistent and supportive to each other. To the extent possible, legal systems governing spatial planning on land and sea should be harmonised to achieve governance systems equally open to handle land and sea spatial challenges, problems and opportunities and to create synergies. Synergies with Integrated Coastal Zone Management should be strengthened in all BSR countries and in a cross-border setting.

9. **Planning adapted to characteristics and special conditions in different areas.** Maritime spatial planning should acknowledge the characteristics and special conditions of the different sub-basins of the Baltic Sea and their catchments. Consideration should be taken of the need for separate sub-regional planning adapted to such areas including sub-regional objectives supplementing regional objectives specified in principle No. 3. In general, maritime spatial plans should seek coherence across ecosystems.
10. **Continuous planning.** Maritime spatial planning should reflect the fact that planning is a continuous process that will need to adapt to changing conditions and new knowledge. Monitoring and evaluation of the implementation of maritime plans and its environmental, as well as socio-economic, effects should be carried out with a view to identify unforeseen impacts and to improve planning data and methods. This monitoring and evaluation should, particularly in its trans-boundary dimensions and in addition to national and transboundary monitoring schemes, build on, and if possible be part of, regional monitoring and assessments carried out by regional organisations.

In 2011 the analysis of the compliance of the above-discussed maritime spatial plans with the principles were conducted (Zaucha and Matczak 2012) under the Plan Bothnia project. The results were fairly positive. In general the compliance with the HELCOM-VASAB MSP principles of the analysed documents seemed quite high. This was true, in particular, for principles dealing with ecological aspects of sustainable development. For instance, very strong compliance with the HELCOM-VASAB MSP principle No. 2 on ecosystem approach and the HELCOM-VASAB MSP principle No. 4, namely, the existence of precautionary measures was observed. In addition, some planning provisions were also related to political or socio-economic precaution⁵⁴. All plans equipped with the SEA contain description of possible adverse significant effects to the natural environment. The others will follow, since the SEA is required by planning law of all EU member states. Many plans contain some genuine precautionary measures addressing those effects. Such measures facilitate coping not only with the environmental uncertainties but also with those related to the social and cultural (underwater heritage) challenges. A BSR debate on MSP governance (under PartiSEApate project) including the SEA methodology will also facilitate implementation of the precautionary principle in the cross-border context. However, for better implementation of these principles more work is necessary in order to develop qualitative descriptors for determining the good environmental status and translating them into the MSP activities and decisions. Also tools and procedures for impact assessment should be developed.

The most intensive efforts have been observed with regard to the implementation of the principle on high quality data and information basis (HELCOM-VASAB MSP principle No. 6). Many modelling tools (Mohn *et al.* 2011; Göke and Lamp 2011) and visualisation instruments (Fetissov *et al.* 2011) have been developed or advanced in the BSR (e.g. MARXAN, BaltSeaPlan Web) to cope with the shortage of data and information as well as challenges of data processing and presentation. However, those efforts still need further support, since information has been regarded as one of key obstacles of proper MSP. Many recently launched efforts need continuation. For instance, the work on a joint BSR legend of the MSP maps should be continued. A joint communication frame (pictograms) for the presentation and debating of plans should be enhanced and accepted.

⁵⁴ For instance, under the MiddleBank plan, because of the possible, but not yet documented habitat values, a sea subarea limited by the 20 m depth contour was established as a potential priority water basin for environmental protection, in which other forms of use are excluded if they interfere with the protective function. Moreover, research on habitat values was recommended for this sea subarea. Certain recommendations have also been introduced to protect underwater cultural heritage at the entire planned area despite the lack of sufficient information on that heritage. Construction of underwater and above-water structures, artificial islands, other structures including laying of cables and pipelines should be preceded by inventories covering, among others, underwater cultural heritage. Under the plan for Mecklenburg-Vorpommern, precautionary reservation of sand for coast nourishment and flood prevention was introduced (in relation to the expected climate change).

CHAPTER 3: BALTIC SEA GOOD PRACTICES IN MARITIME SPATIAL PLANNING

The majority of maritime plans are in line with the integrative approach and by that partially fulfil the HELCOM-VASAB MSP principle No.1 on sustainable development. However, those efforts can be hampered by lack of clear commitments on the part of all BSR countries in prioritising different sectoral policies and related objectives. Therefore it seems that there is a need for a tentative BSR-wide agreement (already postulated by VASAB in the report *Sea Use Planning and ICZM*) on the main targets to be achieved under different policies⁵⁵ (for instance, how much energy we want to produce in the Baltic Sea, what maritime landscapes should be protected and others).

Low compliance has been detected concerning the following principles:

- Continuous planning (HELCOM-VASAB MSP principle No. 10) with regard to monitoring and evaluation. Almost all BSR plans (the exception is Finland and, to some extent, Germany) lack concrete provisions in relation to their monitoring and evaluation.
- Sustainable management (HELCOM-VASAB MSP principle No. 1) with regards to balance between economic, environmental, social and other interests. Many plans insufficiently focused on social aspects of sustainable development and its long-term dimension; some others had very general goals. In general, the issue of underwater cultural heritage was insufficiently addressed in many of the plans including the bidding ones.
- Coherent terrestrial and MSP (HELCOM-VASAB MSP principle No. 8). The main weakness in the sea-land planning coordination is lack of legal requirements on coordination between maritime and terrestrial plans.
- Transnational coordination and consultation (HELCOM-VASAB MSP principle No. 7) with regard to cross-border coordination and protection of cultural heritage. The methodology of cross-border planning needs further development such as establishment of cross-border planning sub-areas or development of MSP cross-border impact assessment.

For cross-border coordination so far traditional methods of consultations have been mainly used whereas more interactive solutions (joint preparation of plans, cross-border involvement of stakeholders) have been discovered and tested only recently. However, it should be noted that this principle will be fulfilled in the future at least to some extent due to the legal requirements to consult the SEA reports and due to the expected outcomes of the PartiSEApate project.

The weak compliance points out towards the need for continued joint BSR-scale efforts towards development of the MSP in the BSR countries. The existing joint HELCOM-VASAB MSP Working Group might fulfil this role: for instance, the group might stimulate methodological advancement of cross-border MSP and land-sea planning integration, or support introduction in the BSR of the UNESCO Convention on the Protection of the Underwater Cultural Heritage.

⁵⁵ Fishery Policy can be treated as a blueprint.



An array of good practices related to MSP have been developed under the above-discussed projects and planning efforts. Many of them have supported the implementation of the HELCOM-VASAB MSP principles. Those practices are listed in Table 3.

Name of principle and related good practice	Location	Source
Principle 1. Sustainable management		
1.1. Balance between economic, environmental, social and other interests		
Good practice: know-how on maritime spatial planning in Natura 2000 areas	Gulf of Gdansk	Maritime Institute in Gdansk
Good practice: methodology for socio-economic impact assessment of different sea uses	Western coast of Latvia	BaltSeaPlan, in particular, BEF Latvia
1.2. Integration of sectoral planning		
Good practice: template on integration of sectoral planning into MSP	Pomeranian Bight/Arkona Basin, Middle Bank; western coast of Latvia; Hiiumaa and Saaremaa, and Pärnu Bay	BaltSeaPlan

Table 3. Selected MSP good practices in the BSR

Source: Plan Bothnia, in particular, Zaucha and Matczak (2012).

Principle 2. Ecosystem approach		
2.1. Good status of the Baltic Sea ecosystem		
Good practice: template for ecosystem-based management of sea areas also including elaboration of a set of coherent indicators necessary for the establishment of a system that enables continuous monitoring of the state of the ecosystem	Barents Sea and the Sea Areas of the Lofoten Islands	The Royal Norwegian Ministry of the Environment
2.2. Protection of the marine environment		
Good practice: noise free areas	Gulf of Gdańsk	Maritime Institute in Gdańsk
Good practice: integrated manner of addressing phenomena such as nature conservation, protection of open spaces with respect to functional soils, water budget, and climate change	German EEZ	Maritime and Hydrographic Agency (BSH)
Principle 3. Long term perspective and objectives		
3.1. Long term vision and other long term strategies		
Good practice: relating maritime spatial plans to the national spatial development visions and strategies. Influencing formulation of national visions of such types	Gulf of Gdańsk	Maritime Institute in Gdańsk
Good practice: formulation of a joint Baltic-wide vision for spatial development of maritime areas	Pomeranian Bight/Arkona Basin; Middle Bank; western coast of Latvia; Hiiumaa and Saaremaa, and Pärnu Bay	BaltSeaPlan
3.2. Planning horizon and forward looking approach		
Good practice: planning provisions on re-use of the sea space, e.g. on dismantling structures and infrastructure out of use or broken down	German EEZ, Southern Middle Bank	German Maritime and Hydrographic Agency (BSH), BaltSeaPlan, in particular, Maritime Institute in Gdańsk
Principle 4. Precautionary Principle		
4.1. SEA		
Good practice: methodology for SEA for maritime plans	German EEZ, Gulf of Gdańsk	German Maritime and Hydrographic Agency (BSH), BaltSeaPlan, in particular, Maritime Institute in Gdańsk
4.2. Precautionary measures		
Good practice: planning under high level of uncertainty with regard to ecological value of the planned area	Southern Middle Bank	BaltSeaPlan, in particular Maritime Institute in Gdańsk
Principle 5. Participation and Transparency		
Good practice: methodology for stakeholder involvement in the entire planning process	Western coast of Latvia	BaltSeaPlan, in particular, BEF Latvia

Good practice: visualisation of planning provisions in order to enhance stakeholder dialogue	Hiiumaa and Saaremaa, and Pärnu Bay	BaltSeaPlan, in particular University of Tartu (Estonian Marine Institute)
Principle 6. High quality data and information basis		
Good practice: identification and classification of information gaps	Southern Middle Bank	BaltSeaPlan, in particular, Maritime Institute in Gdańsk
Good practice: using modelling techniques for maritime spatial planning	Southern Middle Bank	BaltSeaPlan, in particular, Danish National Environmental Research Institute (NERI)
Good practice: innovative use of Marxan for allocation of wind parks	Pomeranian Bight/Arkona Basin	BaltSeaPlan, in particular, Aarhus University
Good practice: improving international compatibility of marine data in the BSR	Pomeranian Bight/Arkona Basin; Southern Middle Bank; western coast of Latvia; Hiiumaa and Saaremaa, and Pärnu Bay	BaltSeaPlan
Good practice: identification and classification of information gaps with regard to SEA	German EEZ of the Baltic Sea	German Maritime and Hydrographic Agency (BSH)
Good practice: comprehensive research programme in support of MSP	Finland	Finnish Environment Ministry
Principle 7. Transnational coordination and consultation		
7.1. International legislation		
Good practice: comprehensive list of international legislation relevant for MSP in the EEZ	Southern Middle Bank, German EEZ of the Baltic Sea	German Maritime and Hydrographic Agency (BSH), BaltSeaPlan, in particular, Maritime Institute in Gdańsk
7.2. Cross-border coordination		
Good practice: delimitation of "Transborder area" along the maritime border with a requirement of transborder consultations	Southern Middle Bank	BaltSeaPlan, in particular Maritime Institute in Gdańsk
Good practice: template for four-lateral planning	Pomeranian Bight/Arkona Basin	BaltSeaPlan
Principle 8 Coherent terrestrial and maritime spatial planning		
Good practice: joint elaboration of the maritime spatial plan by terrestrial and maritime planners	Gulf of Gdańsk and 12 nm zone under jurisdiction of Mecklenburg-Vorpommern	PlanCoast, in particular Maritime Institute in Gdańsk BaltCoast, in particular Government of Mecklenburg-Vorpommern
Principle 9. Planning adapted to characteristics and special conditions in different areas		
Good practice: delimitation of sea subareas (designated areas) based on functional characteristics, in particular, ecological features	Gulf of Gdańsk	Maritime Institute in Gdańsk

Principle 10. Continuous planning		
10.1. Right to plan (ownership of the planning process)		
Good practice: the comprehensive attempt to create a new body of legislation in support of MSP	Sweden	Swedish Agency for Marine and Water Management
Good practice: extension of existing planning legislation towards sea	Finland, Germany	German Maritime and Hydrographic Agency (BSH), Finnish Environment Ministry
10.2. Monitoring and evaluation		
Good practice: advanced plans to introduce a monitoring system for systematic assessment of ecosystem quality. This will use indicators, reference values and action thresholds to provide a basis for more systematic evaluation of trends in ecosystems in the area	The Barents Sea and the Sea Areas off the Lofoten Islands	The Royal Norwegian Ministry of the Environment

The majority of the above-listed good practices have been generated under the BaltSeaPlan project due to its broad methodological scope and impressive geographical coverage. According to the Schultz-Zehden and Gee (2013), one of the most important values of the project was the development of MSP tools and instruments. One should also keep in mind that the project has been characterised by a relatively high level of enthusiasm and comprehensive partnership. However, several good practices have also been indicated outside the BaltSeaPlan project. The largest number of good practices has been detected with regard to data collection, processing, and exchange. Still, this is only an indication that the issue is treated as an important challenge by the MSP proponents and stakeholders and that many countries so far have focused their efforts on the pre-planning stage (inventory). Scarcity of the BSR good practices has been observed under HELCOM-VASAB MSP principles dealing with monitoring and good status of the marine ecosystem. For the latter, the work on MSFD will surely soon lead to a breakthrough.

Out of the above-listed good practices, the five most important ones for ensuring transboundary MSP have been chosen for in-depth presentation. Those practices concern the following issues:

- SEA methodology – due to the need of a joint common denominator for the SEA reports on the maritime spatial plans at the Baltic Sea basin level;
- Information gaps and the ways to reduce them – since only a Baltic-wide coordinated effort in this field could enable production of evidence-based maritime transboundary spatial plans;
- BSR data model – since transboundary MSP needs joint data standards for easy data exchange;
- Conscious inventory of data (acquisition of MSP relevant information) – since transboundary MSP (for being successful) needs farsighted decision among BSR countries on priorities with regard to maritime research, and uncoordinated action in this field will only add to the existing information gaps;
- Regional strategy (vision) – since the existence of such Baltic-wide vision is an important prerequisite for coherent transboundary planning, in particular, for deciding about priorities, ensuring synergies among plans and safeguarding proper conflict mitigation.

On top of that, good practice on stakeholder involvement has also been described in detail. The reason is lack of convincing good practices in MSP on stakeholder cross-border involvement from the very start of the planning process⁵⁶. Therefore, national good practices should be analysed first, since proper stakeholder involvement is an important prerequisite for the success of the planning process.

⁵⁶ PartiSEApate is expected to come up with some similar good practices in 2014.

3.1. Stakeholder involvement

Title of good practice:

Methodology for stakeholder involvement in maritime spatial planning⁵⁷.

Location of good practice: Latvia (Baltic Environmental Forum – BEF), for details see Ruskule and Veidemane (2011)⁵⁸.

Short Summary:

This good practice illustrates how to involve stakeholders into the MSP process from its very beginning. It also shows how to efficiently use stakeholder participation for: (1) ensuring broad ownership of the plan, (2) increasing information base for producing meaningful planning provisions, (3) avoiding conflicts in decision-making process and implementation of MSP, (4) increasing awareness on different sea uses, their needs and problems. Moreover, this good practice illustrates how to combine stakeholder participation and general public participation. The experience was accumulated and verified within the frame of the BaltSeaPlan project.

Issue (importance of good practice)

Stakeholder involvement at the early stages of preparation of plans facilitates implementation of such documents. Moreover, in countries where responsibilities for the preparation of maritime spatial plans have not been legally decided yet and MSP is possible only as a grass-root initiative, planning must be anchored in voluntary cooperation among different stakeholders and interest groups. Otherwise it would remain hardly implementable.

Public participation is of key concern in the eastern BSR⁵⁹ countries that have inherited from the past the culture of narrow (passive) public involvement in decision-making. Public participation is sometimes limited there (in many cases in line with legal requirements) to consultation of the plans prepared in advance by the experts or professional planning teams. Stakeholders are rarely involved at the early planning stage. Latvian good practice shows that this can be changed and that a plan gains in quality from early involvement of stakeholders. The Latvian practice encourages moving the planning process from a solely expert-based towards a stakeholder driven approach. The key requirement is, however, a representative mix of stakeholders to avoid favouring any interest.

Lessons learned

1. Stakeholders bring relevant knowledge and information and are instrumental in genuine consensus-seeking, which is the essence of the spatial planning process.
2. Stakeholders' participation from an early stage ensures broader ownership of the plan and improves their readiness to comply with jointly elaborated provisions. This also allows stakeholders to learn the real reasons for and meaning of MSP (the aims, steps of the process etc).
3. Stakeholders' participation needs wise management. There is a need for various channels of involving different stakeholders in the planning process. In Latvian case, there was a clear difference between authorities, NGOs and the general public. Competent authorities (regional

⁵⁷ Please note that in many other BSR countries there are numerous good practices on stakeholder involvement. The Latvian case was chosen due to higher demand for such type of good practices in the countries that recently acceded to the EU.

⁵⁸ For additional background information please also see Pentz (2011).

⁵⁹ Eastern part of the BSR.

and national, having their stake in maritime space development) were invited to join the coordination group. The group was responsible for the coordination of the entire MSP process. The local and regional interests (for instance, municipalities, harbour/port authorities, scientists/experts on habitats and species conservation, fishermen, representatives from the tourism sector, and developers from the companies in charge of the cable and linear infrastructure) were involved via different events organised on the ground. For some stakeholders (for instance, local fishermen) targeted communication was necessary to engage them in the process. To achieve a broad stakeholder involvement, various stakeholder events were organised. The following types of events were held:

- methodological workshops,
- stakeholder meetings,
- thematic meetings.

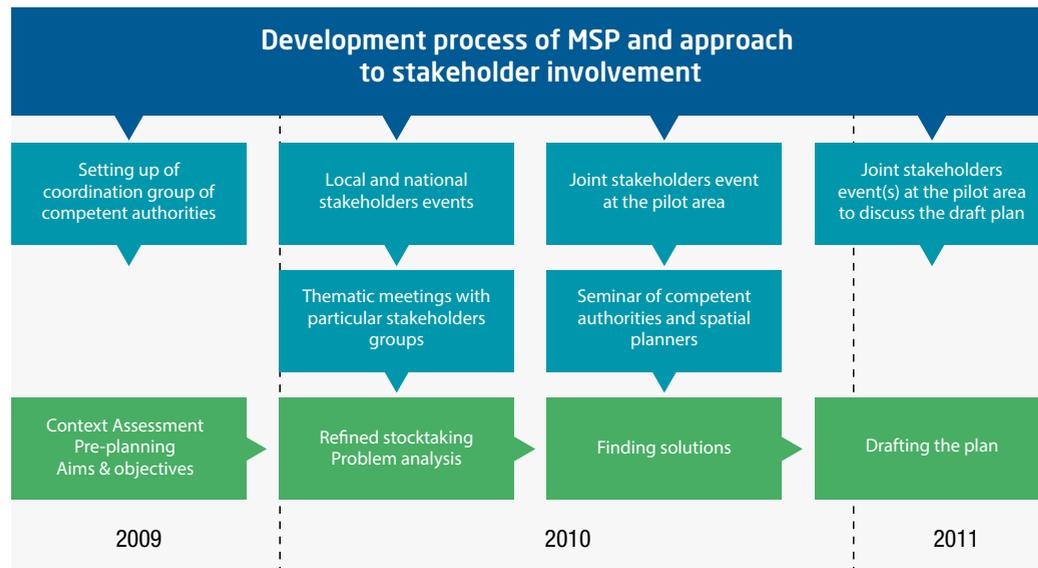
The purpose of those events was to raise awareness among stakeholders and jointly elaborate some important keystones of the plan (stocktaking, conflict identification and management, designation of specific subareas). To deepen the dialogue with the most important stakeholders, four thematic meetings were organised in the course of three months. They addressed:

- fisheries sector,
- wind park developers,
- port administrations,
- local authorities and tourism sector.

For details see Figure 7.

Figure 7. Latvian stakeholder process

Source: Redrafted from Ruskule and Veidemane (2011).



4. Proper identification of stakeholders is extremely important. The stakeholders have been identified by the following criteria:
 - decision makers and relevant competences with regard to sea uses on national, regional or local level;

- main sea users (representatives of economy sectors, through associations) based on the analyses of the existing situation with sea uses;
- potential sea users – the energy sector, mineral oils investigation areas;
- local coastal municipalities and their union – to ensure sea-land interface;
- environmental non-governmental organizations;
- scientists and research institutions working on marine issues.

5. The stakeholder process should not be of a decorative nature. Stakeholders can be involved in the drafting of planning provisions. In Latvian case, the most important planning provisions were formulated during stakeholders meetings (see Point 6).
6. The stakeholder process should follow a logical sequence showing to stakeholders the importance of their inputs and the progress achieved. In Latvian case, the first meeting served as a forum for the presentation of reasons and benefits out of the MSP. The second meeting was used for discussing conflicts and possible ways of their mitigations and alleviation. The third meeting was devoted to delimitation of sea subareas and producing related requirements on sea uses. This was important for coming up with possible solutions for cross-sectoral conflicts and balanced sea use, for example, for preparation of tentative provisions of the plan. Also the goals and rules and outcomes of using the sea space were discussed and negotiated between the stakeholders and authorities during the stakeholders events.
7. Innovative methods for stimulating discussion can improve the outcome of the planning process. In Latvian case, some interactive methods were used for stimulating discussions (for example, the World Café Method, round tables, maps and others) and were assessed positively by the stakeholders.
8. The venue of a meeting with stakeholders also matters. The meetings were organised in different parts of the Latvian coast. This was important to ensure the participation of local stakeholders. Only national and regional stakeholders took part in all events, whereas the presence of local ones was usually limited to the meetings held in the closest vicinity. Therefore, for instance, while all three meetings were attended by fishermen, those were different people.
9. The stakeholder process needs a driving force behind and careful preparations. In Latvian case, the driving force was the Baltic Environmental Forum. In the periods between the stakeholder meetings methodological seminars were organised. They were attended by the most active and committed stakeholders. Methodology for analysing and handling conflicts and for delimitation of the subareas was elaborated during the seminars. The methodology was then used during stakeholder meetings.
10. The following conclusions outlining key conditions for a successful stakeholder participation process have been formulated by the planning team:
 - A key prerequisite is transparency and openness of the process as such.
 - It is important that all information is shared with stakeholders, that planning team is open to all stakeholders and treat their interests equally.
 - To achieve consensus, the negotiations of the spatial division shall be conducted with active involvement of all stakeholders.
 - To avoid failures in the identification of all relevant stakeholders, it is important to make press releases before the stakeholder events or to ask other participants to disseminate the information further on.
 - The participation in different events with presentations related to marine issues also increases the transparency of the process and might result in involvement of some new stakeholders.

3.2. Methodology of strategic environmental assessment for maritime spatial plans

Title of good practice: Methodology of SEA for maritime spatial plans.

Location of good practice: Poland (Maritime Institute in Gdańsk) – for details see Nolte *et al.* (2011).

Short Summary:

This good practice illustrates how to prepare the SEA report for maritime spatial plans in line with the spirit of the SEA Directive⁶⁰ when the planned area contains Natura 2000 sites. The SEA prepared in Poland clarifies methodological differences in preparation of the SEA for Natura 2000 sea sites and other waters, examines the impact of the plan implementation on human beings as part of the environment and covers sea land interactions (for instance, the impact of implementation of a maritime plan on the terrestrial environment). The experience was accumulated and tested within the frame of the BaltSeaPlan project.

Issue (importance of good practice)

The production of several maritime spatial plans has recently been started in the BSR. Therefore, the BSR countries face a similar challenge of preparing methodology for SEA on such type of plans. It seems that the demand for know-how on the preparation of the SEA for maritime plans will grow in the BSR. Polish case has a strong methodological part describing all problems the SEA team coped with as it prepared the document. Moreover, due to a necessity of transboundary consultations on the SEA for maritime spatial plans it would be desirable if those documents could have at least some joint methodological roots (followed a similar logic of assessment) or could be based on a joint BSR methodological template, namely, a similar typology of impacts, a similar approach to BSR strategies and documents etc. Polish case can serve as a starting point for such discussions among the BSR countries.

Lessons learned

1. For conducting a SEA process, the starting point should be the identification of all sea uses with significant effects on the environment. Proper identification of all those uses requires a multidisciplinary team, intensive involvement of stakeholders and cooperation or availability of a planning team who has already conducted a stocktaking exercise. In Polish case the planning team (experts elaborating the given maritime plan) supported the SEA process by answering questions, explaining the provisions of the plan. An example of the sources of impact identified in the Gdańsk Bay is provided in Figure 8. Some sources (mariculture, extraction of oil and gas) have not been analysed due to the plan provisions excluding them from the whole area of the plan.
2. When the SEA covers Natura 2000 areas it is equally important to understand the reason for creating them (what is to be protected) and critically verify those ambitions against reality, the actual situation in the habitats. It is crucial to have a clear picture of conservation objectives, subjects of protection, and the integrity of Natura 2000 sites/areas with all other important components of the natural environment. At this stage close collaboration with nature protection authorities is a must. Also literature review, in particular, screening all relevant existing analysis is an important part of the process of building the ecosystem understanding. Without these aspects one can risk serious gaps in the SEA analysis.

⁶⁰ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive).

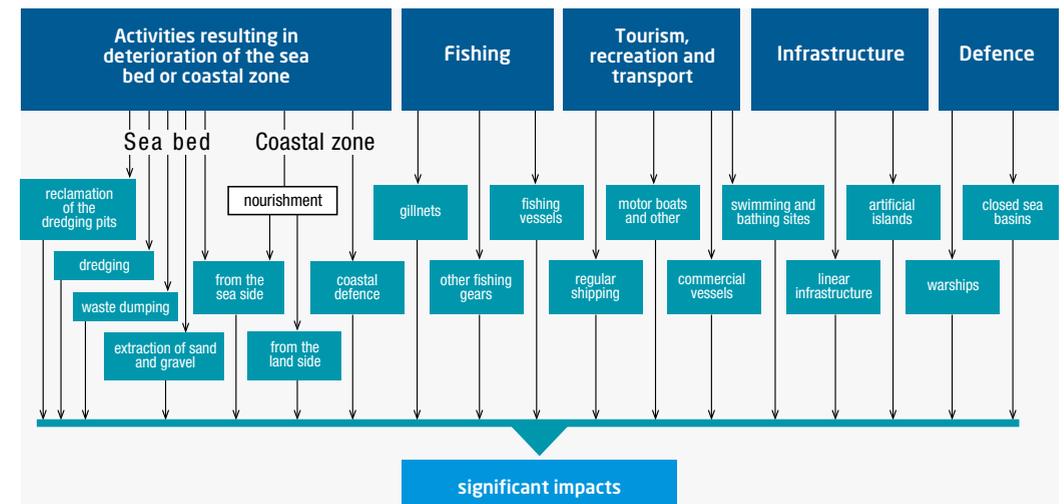


Figure 8. Sources of potentially significant impacts on environment

Source: Redrafted from Kruk-Dowgiało *et al.* (2011) p.11.

3. The previous steps (interactions with stakeholders, environmental authorities, setting up a planning team, literature review) allowed for preparation of a detailed list of objects (environmental elements) that should be subject to the assessment of the impact on them of the plan implementation. In Polish case it was decided to conduct a separate assessment for the elements (components) of the environment and for objectives and subjects being under the protection of the Natura 2000 network. This was important to pay due attention to the existence of the Natura 2000 sites in the planned area.
4. One of the most critical steps is working out a typology of impacts with clear definitions behind. From the point of view of the essence of the SEA, a key issue was to define the significant negative impacts. In Polish case this process has been divided into the following stages:
 - stage 1 – identification of potential significant impacts,
 - stage 2 – analysis of expected significant impacts,
 - stage 3 – assessment of expected significant impacts.
 Identification of potential impacts was based on the available literature, the knowledge of experts and the know-how of stakeholders. At this stage a definition of significant impact was agreed upon. Such an impact has been described as a negative (in comparison to the starting point) measurable change in the state or function of the elements of the environment caused directly or indirectly by activities of the entity/body making use of the environment. The significance of the impact has been assessed through a joint effort of the whole SEA team. This was the only way to ensure at least some objectivity of this category.
5. The analysis at this stage started to become complex. For easier communication (SEA first of all is a process of communication between interests) it is critical to use certain tools for clear presentation of different impacts, their location and intensity. In Polish case different types of matrixes were elaborated for the presentation of cumulative significant impacts of different types of uses (sources of impacts) on conservation objectives, subjects of protection, the integrity of Natura 2000 sites/areas and on all other components of the natural environment. The following tools have been used:
 - description matrixes,
 - calculation matrixes.

Potential significant effects have been listed for each source of impact, giving a concrete name of the sea subarea (taken from the plan) and providing figures of its total area and length of the coast line affected. This enabled the calculation of the share of the planned area affected positively, negatively or not affected at all by the impact from the analysed sources.

An example of a description matrix for the selected source of impact (here – coastal infrastructure) is given below (Table 4).

Table 4. Example of a description matrix for coastal infrastructure as the source of negative impacts

Source: Kruk-Dowgjallo et al.(2011).

Source of impact	Potential effects	Provisions of the plan	Sea subareas (numbers)	Length of the coastal line in km
Coastal infrastructure	<ul style="list-style-type: none"> • destruction of sea bed and bottom habitats • diminishing water transparency • changes in landscapes (both terrestrial and maritime) • development of periphyton 	not allowed	no	0
		allowed	02, 11, 15, 16, 17, 22	17, 38
		not regulated	01, 03-10, 12-14, 18-21, 22-30	58, 80
	Reduction of negative impact		no	no
	Lack of reduction of negative impact		all basins	76, 18
	Not relevant		–	–

The calculation matrix was used for the calculation of the total area affected by the selected sources of impact.

6. In accordance with the SEA Directive, all impacts were also classified as:
- direct or indirect,
 - short or medium or long-term, or permanent or temporary,
 - strong, medium or weak,
 - positive or negative ones.

This was not an easy task, since the Directive gives no clear definition of those notions. Polish case offers unique definitions of the following notions that have been clarified and precisely defined in relation to sea processes: negative and positive effects, direct and indirect (secondary) effects, cumulative effects, short, medium and long-term effects, permanent effects and temporary effects.

7. Different types of impacts should be communicated to stakeholders in relation to the objects of impact (identified under step 4). This part of the work is critical since it forms a core of stakeholder debate (in case of cross-border impacts also debate with transnational stakeholders). Thus it is of the utmost importance to present the impacts in a clear and objective way.
8. The analysis conducted by the SEA team verified through the findings from stakeholder meetings (two meetings were organised in Polish case) served for the formulation of the SEA conclusions regarding the necessary changes in the plan (alternatives) in order to eliminate the most acute sources (by changing planning provisions) or mitigate or compensate for their negative impacts on environment. The measures to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing a plan or programme were proposed. Measures for monitoring the SEA implementation were also devised.
9. A vigorous stakeholder process is instrumental for the success of SEA. Stakeholders should be involved from the outset (as a part of the preparation of the plan) for identifying different impacts and discussing the cumulative matrixes. Such a discussion should have an iterative character as a stakeholder learning process. In Polish case two meetings with stakeholders were organised for the identification of impacts and for a discussion on the results.

3.3. Coping with information gaps

Title of good practice: Dealing with information gaps.

Location of good practice: Poland (Maritime Institute in Gdańsk) – for details see Zaucha (2012a).

Short Summary:

This good practice illustrates the fact that information gaps are different and each gap needs different measures in order to cope with the problem of the lack of necessary information while preparing maritime spatial plans. It capitalises on Polish experience related to MSP based on such projects as PlanCoast and BaltSeaPlan.

Issue (importance of good practice)

One of the main constraints in preparation of maritime spatial plans is the lack of relevant information necessary for a wise allocation of space, the protection of its unique values, and conflict settlement. One of the specific features of MSP is the high costs of obtaining information that requires on-spot investigations in four-dimensional sea space. Such costs usually grow with the increasing data accuracy. On the other hand insufficient information should not prevent the preparation of maritime spatial plans. The risk is, however, the development of the BSR research and surveying agenda on a first come, first served basis without wider strategic considerations. Insufficient information coupled with a growing demand on the part of developers for a more intensive use of the sea space due to the appearance of new business opportunities (e.g. shale gas, renewable energy, international transmission infrastructure) might lead to a stalemate in MSP.

Lessons learned

1. Although, at the first glance, information gaps in the planning process look similar (lack of information), overcoming them requires fine-tuned measures related to the nature of a given gap. There are information gaps related to the stocktaking phase and those related to other phases of the planning process, for instance, communication, stakeholder dialogue, monitoring, evaluation and others. Experience accumulated under BaltSeaPlan and PlanCoast indicates that there are four main gaps related to the stocktaking, namely, to the state of knowledge (the existence of data and evidence):
 - lack of information – the issue has not been analysed sufficiently (lack of knowledge);
 - lack of spatial attribution of information – the issue has been analysed but the spatial framework has been omitted (spatially irrelevant knowledge);
 - disclosure gap – the issue has been analysed sufficiently, but there is no incentive for a broader sharing of accurate information (hidden knowledge);
 - temporal gap – the issue exists and can be analysed in the present time-frame, but its future development remains unclear (static knowledge);
 - there are also two gaps related to the communication and stakeholder dialogue but affecting also quality of monitoring and evaluation;
 - communication deficiency gap – the existing cognitive artifacts/modalities (e.g. language) and information channels are unable to diffuse and communicate precisely the produced and processed information and/or knowledge (e.g. due to its complexity). This gap can result from the difference in the planning procedures and planning culture between countries or an insufficient integration of various disciplines within the planning process (e.g. economics not integrated with ecology);
 - institutional gap – lack of proper information within regulatory frameworks resulting from institutional deficiencies. The ultimate result of the institutional gap is the lack of the necessary policies, regulations, and policy integration, that is, lack of information that regulates actual processes through the communication of the intentions and goals of regulatory bodies (lack of targets, objectives etc.).

2. Each gap calls for a different approach in order to continue the planning process. Some emergency solutions can be applied at a short notice but there is also a need for a more coherent pan-Baltic approach to closing information gaps that will secure integrity of the planning process in the long run. The solutions tested by the BaltSeaPlan and PlanCoast planning teams to overcome those gaps and the long term suggestions for the future (for structural changes) are presented in Table 5.

Table 5. Information gaps and ways of coping with them

Source: Zaucha (2012a).

Gap	Short-term solutions	Long-term solutions
Lack of information	Modelling the marine environment (e.g. habitats). Precautionary measures – provisions in the plan spelling out the need for further research. Request to prepare detailed plans in advance of large scale investments. TIA (or TIA-like) procedures for other investments.	Shaping EMODNET in line with the MSP needs as the joint action of the BSR countries. Joint BSR research. Agenda for MSP BSR agreement on the minimum scope inventories done in relation to localisation of large scale investments.
Lack of spatial attribution of information	Extracting expert knowledge via stakeholder process	Promotion of interdisciplinary research Concerted BSR research – e.g. BONUS BSR Agreement
Disclosure gap	Genuine stakeholder process	Awareness rising on benefits of MSP
Temporal gap	Reserving some space for unknown future developmental purposes	Introducing multiannual maritime programming as mandatory. Regular exchange of know-how and experience on maritime spatial plans of other countries. Joint BSR vision on the use of the marine space.
Communication deficiency gap	Interdisciplinary and transnational planning teams	Minimum common denominator on MSP methodology in the BSR Regular exchange of know-how and experience on maritime spatial plans of other countries. Joint BSR vision on the use of the marine space. Joint BSR work on the methodology of valorisation of marine space.
Institutional gap	Recommendations for development of an institutional system for MSP. Examination of background reports relevant for MSP and draft legislation proposals (and their justifications).	Agreement on the comprehensive objectives or visions, targets, and goals regarding the use of marine space at national and international levels. Operationalisation of the agreed targets in line with the MSP specificity. Development supportive tools for decision making in MSP (as proposed under BONUS).

3.4. Baltic Sea Region data model

Title of good practice: Creation of an integrated pan-Baltic data model for maritime spatial planning purposes.

Location: BSH/Germany – for details see Wichorowski *et al.* (2011).

Short Summary:

This good practice illustrates how to solve the problem of compatibility of the marine data in the BSR and how to foster better use of existing data for improving stakeholder dialogue and transnational understanding of the MSP process, role and importance.

Efforts were taken to outline a framework for this type of harmonised datasets under the BaltSeaPlan project. This included definition of technical and content-related requirements, an effort to compile common Baltic datasets on some of the most important activities and functions: offshore wind energy, pipelines, submarine cables, platforms, marine aggregates extraction locations and nature conservation areas. Other important activities such as shipping and fisheries were excluded as being regarded as more difficult to link with space and/or due to low accessibility of data. Collected jointly data has been then processed to create common datasets – making it necessary to deal with inconsistencies and data and information gaps.

Issue (importance of good practice)

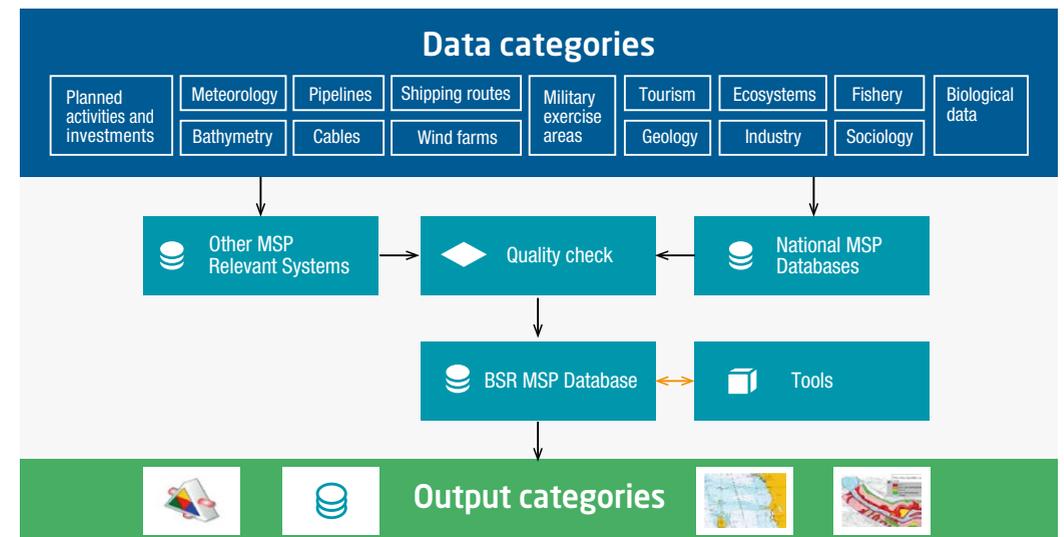
Data compatibility is of great importance for a coherent sea basin MSP. Preparation of transboundary maritime plans is difficult without compatible data and can lead to different type of misunderstanding. Cross-border consultation process and cross-border debates are hampered by insufficient techniques for visualisation of quantitative data (rarely attributed to space), as well as qualitative information such as development intentions. Compatible data helps in the monitoring of development of the sea space. Moreover, a joint graphical design (use of a joint legend and pictograms) can reduce the still existing language barriers and encourage participation of important stakeholders in cross-border debates even despite language and cultural barriers (e.g. fishermen, small and medium enterprises).

Lessons learned

1. Standardisation of information for MSP and ensuring their cross-border compatibility is impossible without prior agreement on a pan-Baltic data model for MSP. Such a model should provide conceptual design of the databases used for data provisions. The model should be based on the current experience both at the national and sea basin level (e.g. HELCOM or EMODNET⁶¹) and respect national and international regulations (e.g. INSPIRE Directive of the EU⁶²) and output requirements (MSFD, EU Integrated Maritime Policy etc.).
2. Development of the information basis for MSP should be policy, and not research driven. The starting point for the preparation of the model should be an inventory of information needed by maritime spatial planners in their daily work, namely, what should be analysed and presented on the maps. This would allow for identification of the necessary outputs and MSP categories.
3. Important constituent parts of the model are as follows: MSP categories, an MSP data basis and data provider included in the basin-wide data system, quality check procedures, IT tools (database engines) and outputs. Joint visualisation tools would also be welcome. The data flows proposed for the model are presented in Figure 9.

Figure 9. Data flow within the data base

Source: redrafted from Wichorowski *et al.* (2011).



61 European Marine Observation and Data Network, launched by the Directorate-General for Maritime Affairs and Fisheries.

62 Abbreviation of Infrastructure for Spatial Information in Europe. This is an EU Directive that aims at making available relevant, harmonised and quality geographic information to support formulation, implementation, monitoring and evaluation of Community policies – particularly those relating to the environment.

The main principle of the model is propagation of the requested data objects acquired from a variety of sources and collected both by the bodies responsible for MSP and supplied by a third party system to the sea basin MSP collection.

4. For success of the integrated database at the sea basin scale there are some technical prerequisites requiring transnational agreements and close collaboration of the bodies responsible. Among them the most important are the following:
 - sea basin agreement on one meta data format (such meta data format has been tested and proposed under the BaltSeaPlan project – cf. Figure 10).

Figure 10. Proposal for a metadata input template

Source: Wichorowski et al. (2011).

INSPIRE Part			Example
B 1	Identification		
B 1.1.	Resource Title	Title	Image2000 Product 1 (n2) Multispectral
B 1.2.	Resource	Description	Image2000 product 1 individual orthorectified scenes. Image2000 was produced from ETM+Landsat 7 satellite data
B 1.3.	Resource Type		Dataset
B 1.4.	Resource Locator	Location of the Data	http://image2000.jrc.it
B 1.5.	Resource Unique Identifier		
	Code		image2000_1_n12_multi
	CodeSpace	URL	http://image2000.jrc.it
B 1.7.	Resource language*	Language abbreviation, code list* (i.e.: Danish – dan, English – eng, Estonian – est, Finnish – fin, German – ger, Latvian – lat, Lithuania – lit, Polish – pol, Swedish – swe)	eng
B 2	Classification of data and services		
B 2.1.	Topic Category*	choose from GEMET Thesaurus	imageryBaseMapsEarthCover
B 3	Keyword		
B 3.1.	Keyword Value	choose from GEMET Thesaurus	Land cover
B 3.2.	Originating Controlled Vocabulary		
	title*	GEMET Thesaurus, INSPIRE themes	GEMET Thesaurus version 1.0
	reference date*		
	date		2001-01-01
	date type		publication
B 4	Geographic Location		

INSPIRE Part			Example
B 4.1.	Bounding Box	define a rectangle containing the area covered by data	
	West	westBoundLongitude	+3.93
	East	eastBoundLongitude	+7.57
	North	northBoundLatitude	+52.1
	South	southBoundLatitude	+54.1
B 5	Temporal Reference		
B 5.1.	Temporal extent		(for example: From 77-03-10T11:45:30 to 2005-01-15T09:10:00)
B 5.2.	Date of publication		2000-01-01
B 6	Quality and validity		
B 6.1.	Lineage	General explanation of the data producer's knowledge about the lineage/quality aspects of the dataset	Product 1 scenes correspond to the path/row of the Sandsat orbit. All Image2000 product 1 scenes are ortho-corrected
B 6.2.	Spatial Resolution		25.0
B 7			
B 7.1.	Specification		
	title		INSPIRE Implementing rules laying down technical arrangements for the interoperability and harmonisation of orthoimagery
	publication date		2011-05-15
B 7.2.	Degree	Information about the degree of conformity with the implementation rules provided in Art. 7-1. ISO 19115	true
B 8	Constraints related to access and use		
B 8.1.	Conditions applying to access and use	Description of terms and conditions, including where applicable, the corresponding fees (i.e. link)	no conditions apply
B 8.2.	Limitation on public access		no limitations
B 9	Responsible Organisation		
B 9.1.	Responsible party		
	organisation		Joint Research Centre
	e-mail		image2000@jrc.it
B 9.2.	Responsible party role		custodian
B 10	Metadata		
B 10.1.	Metadata point of contact		
	organisation		Joint Research Centre
	e-mail		image2000@jrc.it
B 10.2.	Metadata date format		2005-04-18
B 10.3.	Metadata language	see B 1.5.	English

- compatibility with GIS tools developed either by commercial companies or as a freeware (the most popular systems and libraries and GIS tools were examined as part of good practice, and the strong points of freeware such as Grass and GDAL were pointed out),
 - integration of relevant spatial data from the existing networked data basis instead of replacing them,
 - application of modern external data storage destinations like the world data centres or other cloud like solutions to store the relevant raw data as back-up.
5. There are also some important procedural prerequisites for creating an integrated data base at the sea basin scale. The most important are the following actions:
- the first step should be to implement INSPIRE Directive in all coastal countries ensuring a kind of common denominator,
 - further issues concerning explicitly marine data should be specified on the basis of relevant themes listed in INSPIRE Annexes II and III and transposed into national legislation (covering technical requirements for metadata and data input formats and data exchange procedures),
 - data flows should be formalised at the national level, and a regularly updated coastal and maritime information infrastructure should be created that pulls together data from different sources and acts as the basis for spatial planning decisions,
 - the most desirable would be the drafting of a binding international law (part of an EU directive) regulating data exchange and access to MSP data, but as a starting point one can suggest a sea basin scale memorandum of understanding regulating data policy, data storage and exchange and dynamics of data actualisation which can be joined voluntarily by new members,
 - countries should also agree on drawing together some data on the most acute spatial problems (e.g. infrastructure corridors).
6. In terms of content it is important to:
- first examine the MSP validity of different models and model techniques and only then, their demand for data and information,
 - strengthen the alignment of SEA and MSP stocktaking phase as far as demand for data and information is concerned,
 - reach a basin-wide consensus on the scales of different types of the MSP maps since those scales imply the minimum resolution of data on each level (different information should be visualised/used/required at different levels).
7. Advancing work on the integrated data base at the sea basin scale also requires a long term goal (vision) for the collection, processing, exchange and accessibility of data and information. The following long term goals in this field have been proposed under the BaltSeaPlan case:
- National data should be publicly available so that they can be used by all stakeholders for the MSP process. As far as data have been generated with public funding, they should be available free of charge in connected Baltic-wide databases.
 - A network of data networks should ensure data quality by agreeing joint standards and comparability of data at different scales. An BSR agreement should be reached on a baseline scale in order to map at Baltic Sea-wide level.
 - Data gaps (ecological, social, economic data) should be jointly identified and filled in. The most important gaps concern in particular: human activities and sea uses, ecosystem services, information of lifecycles and demands of species, indicators for good environmental status, economic value of ecosystem benefits.
 - A joint integrated information base should bring together data on uses, pressures and their impacts as well as environmental information and habitat maps.

3.5. Regional strategy and vision

Title of good practice: MSP BaltSeaPlan Vision 2030.

Location of good practice: BSR (BaltSeaPlan) – for details see Gee *et al.* (2011).

Short Summary:

The MSP *BaltSeaPlan Vision 2030* (Gee *et al.* 2011) takes an integrated perspective of sea uses and the Baltic Sea ecosystem. It deals with spatial aspects, complementing existing visions and policies for the Baltic Sea. Rooted in existing trends and policy objectives, it tries to anticipate future developments and changes.

The vision aims at providing more coherence and certainty to all users of the Baltic Sea space. It also aims at facilitating different types of processes that guarantee the well-being of the Baltic Sea as a living and healthy ecosystem. It is transnational, but linked to national MSP. It is part of a holistic approach to MSP across scales. It shows how MSP concept could ideally have been translated into practice by 2030.

Issue (importance of good practice)

MSP has become a widely acknowledged and necessary tool for coordinating spatial use in the sea. It should serve the sustainable development of the Baltic Sea by balancing interests and by acknowledging the underlying natural processes and values in the sea.

If individual countries or sub-regions act and plan jointly as a macro-region, they can increase their influence on international economic, social and environmental trends and developments. As a result, they can become better prepared for the unexpected that may arise in a globalised world. The role of the MSP *BaltSeaPlan Vision 2030* is to help this process of joined-up forward thinking. A joint vision also helps in conflict mitigation at pan-Baltic level and in coordination of developmental efforts that require transnational cooperation as postulated by the European Commission (EC 2007).

Lessons learned

1. There are two possible different types of transnational visions on MSP at sea basin level: a vision of the MSP process⁶³ and a vision of the state of the sea space in a long run. Both visions are different but the latter is broader and requires wider-scale debate and agreements. In the Baltic case the MSP *BaltSeaPlan Vision 2030* (Gee *et al.* 2011) tries to combine both elements. It has been strongly acknowledged that *“how we see Baltic Sea space, and how we think it should be used for human activities, is crucial for developing general rules for MSP”* (Gee *et al.* 2011:11).
2. Important prerequisites for the vision to become successful are the following:
 - treating an entire sea basin as one planning space,
 - taking an integrated perspective of sea uses and the Baltic Sea ecosystem (vision should not be biased by a single use),
 - dealing with spatial aspects, complementing existing visions and policies for the sea basin (such as VASAB, HELCOM etc.),
 - being grounded in existing trends and policy objectives, trying to anticipate future developments and changes,
 - trying to provide more coherence and certainty to all users of the sea basin sea space,

⁶³ cf. e.g. VASAB principles on MSP adopted in 2008.

- being related to the well-being of the given sea as a living and healthy ecosystem,
- being transnational, but linked to national MSP as a part of a holistic approach to MSP across scales.

Still the key prerequisite is striking a balance between the environment, the economy and the social sphere. In the Baltic case the fundamentals of the visioning process were provided by a separate socio-cultural vision, economic vision and ecological vision that were merged into one vision of the healthy Baltic Sea.

3. Development process matters. To fulfil the above-listed prerequisites the vision should be developed by an international team of a broad range of different backgrounds and perspectives with practical experience in MSP and, if possible, including those legally responsible for the MSP in their countries.
4. The vision should be developed with concrete tasks in mind. It cannot substitute legal agreements and international conventions on sea space use nor transnational policies run at the sea basin level (e.g. fishery policy). However, the vision can become a starting point for reformulating existing legal and decision-making frames if necessary. An MSP vision seems well-suited to serve the following tasks:
 - The vision can make clear why forward-looking thinking is important and why it pays to take action now rather than later.
 - The vision can provide a holistic cross-sectoral view on issues that are often regarded separately.
 - The vision can help to communicate the benefit of the MSP.
 - The vision can be used to facilitate stakeholder dialogue.
 - The vision can help to achieve transnationality in MSP and cooperation between states on matters of sea use.
5. The vision should be general enough to stay valid with the passing of time. One of the options can be an agreement on key principles for allocating sea space agreed by all stakeholders. In the Baltic case three principles of such nature have been proposed:
 - Sea basin thinking. It regards the sea basin as one planning space and ecosystem at all stages of the MSP process. The temporal dimension of this single planning space has also been acknowledged, meaning that long-term implications are considered just as much as the short-term impacts of planning decisions for the entire sea basin.
 - Spatial efficiency: Sea space must be used sparingly, both to minimise the impacts of sea uses on the wider scale and to keep back as much space as possible for future sea uses. Another guiding principle is that ecological functions must not be jeopardised, such as water exchange, currents and other functions essential for environment services in the sea.
 - Connectivity thinking: It means focus on connections that exist to other areas or uses. Connectivity thinking is adapted to the specific topics. For the migrating species, for example, connectivity means the availability of migration routes for birds and blue corridors for migratory sea species such as salmon.
6. Although remaining general, the vision should be focused. In the Baltic case the following four topics have been chosen as a means of focusing the vision:
 - a healthy marine environment,
 - a coherent sea basin energy policy,
 - safe, clean and efficient maritime transport,
 - sustainable fisheries and aquaculture.

For selecting those particular topics two important criteria have been applied:

- transnationality of topics – to what extent they need genuine sea basin cooperation and actions,
- importance of the topics for all coastal states – the topics listed above were chosen due to the conviction that all coastal states will be affected by future developments in these topic areas due to the already known tendencies in transnational and national policies.

Objectives and targets have been set for these four topics. The Baltic Sea space is allocated to each of these topics based on a Baltic Sea scale environmental assessment and, where applicable, also on a socio-economic cost-benefit analysis in order to identify the most suitable areas.

7. The vision should be implementable, otherwise it would remain a theoretical exercise only. In the Baltic case, the following key elements for implementing MSP have been identified:
 - data management and information as a key to success,
 - maritime spatial plans as main implementation tools (vision identifies national and transnational prerequisites for the establishment of MSP system),
 - the transnationalisation of the MSP process (adding a transnational element to well known MSP planning cycles),
 - transnational and cross-border cooperation and governance (since MSP cooperation takes place at several levels: (i) the methodological level (agreeing on a joint vision, joint principles for MSP, joint objectives and targets, as well as common methods), (ii) the strategic level (cross-sectoral spatial planning), (iii) the operational/implementation level (project planning and implementation of transnational infra-structure, information and data exchange) – there is a need for various authorities and institutions to take on their different shares of these tasks at the sea basin level (a vision gives an example of such a division of labour).
8. A properly communicated vision can trigger important real sphere processes. In the Baltic case, the good practice is in bringing up the vision to the policy making level via different important sea basin processes and cooperation networks such as HELCOM, VASAB, EU Integrated Maritime Policy, national strategies and others.

3.6. Conscious inventory and acquisition of information relevant to maritime spatial planning

Title of good practice: The Finnish Inventory Programme for the Underwater Marine Environment (VELMU).

Location of good practice: Finland (cf. Fig. 11).

Short Summary:

VELMU's objective is to survey marine habitats in Finnish waters, give an overview of species occurrence and develop a management system for data collected on the benthic marine environment. The programme collects data on the diversity of underwater marine biotopes and species. It is an umbrella programme encompassing many local projects. Under VELMU both abiotic (geological and physical-chemical features) and biotic variables (species and habitats) are monitored. The research concerns mainly the seabed and partly also the water column.

VELMU is a programme of cooperation between seven ministries (internal affairs, defence, education, communication, agriculture and forestry, trade and industry and environment). It is implemented in cooperation among many data producers and stakeholders.

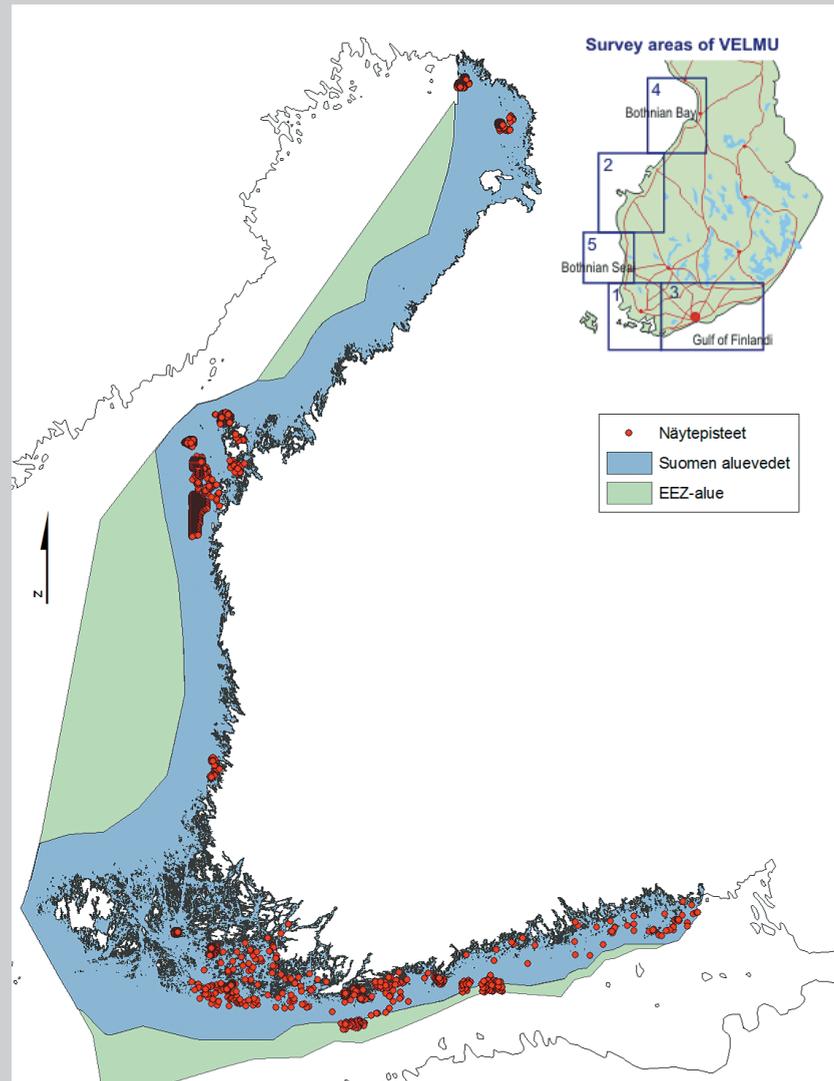


Figure 11. Survey areas of VELMU

Source:
<http://www.ymparisto.fi>
 retrieved on
 4 November 2011

The Ministry of Environment is responsible for the overall coordination. The inventories are being conducted during 2004-2014.

Issue (importance of good practice)

Preparation of a maritime spatial plan requires information on the distribution and composition of the underwater habitats. The VELMU programme facilitates this task by: (1) enhancing knowledge of the marine environment by producing an overview of the most important marine habitats and species in Finland; (2) collating the existing data into a database; (3) promoting the exchange

of information between different institutions and making marine data more easily available; (4) establishing a web-based resource for marine environment information, including a map service.

A key feature of VELMU is its networking character, that is, exploiting synergies of what is already available and focusing research on key MSP gaps.

The information gathered under VELMU programme will be of central importance for MSP and for planning of the nature conservation and the exploitation of natural resources. The acquired information will also be used for regional ICZM plans that are drawn up for coastal zones within the EU, and for environmental impact assessments. Accurate information on valuable nature areas is also needed for planning oil and chemical combating and clean up.

The information gathered under VELMU will also be applied for reaching the objectives on the biodiversity and sustainable development of the BSR, described by European and regional directives and strategies.

Lessons learned

1. A pre-test is important for the final fine-tuning of the shape and content of the inventory programme. The VELMU programme began with the pilot stage of the Archipelago Sea in 2003, where the variation of underwater biotopes and species is the largest on Finnish coast. It provided good preconditions for development and testing inventory methods as well as the data management system. The inventories will be extended throughout Finland's sea area, including the EEZ.
2. To yield reliable results an inventory programme should make use of various methods. The VELMU programme surveys both abiotic and biotic elements of the marine environment. To get a complete picture, a variety of survey methods are used – from scuba diving to remote sensing and modelling. Geological survey includes echo sounding and bottom sampling. Biological inventories include such methods as underwater photography, sampling of fauna, dive transects or specific tools for fish sampling in shallow waters (like white plate, scoop or seine net).
3. The GIS technology is a useful method for attributing information to the space. The VELMU programme uses the state-of-the-art GIS technology and statistical modelling methods to produce maps of the distribution of benthic species and habitats.
4. Different scaling should be applied. The gathered information is shown on a map in three different scales:
 - the common features of the sea areas (geological formations, biogeographical areas) are shown on a national level (scale: 1:1 000 000-1:500 000) – it creates a basis for more specific work;
 - underwater landscapes and biotopes are represented on an area level (1:200 000-1:100 000),
 - more detailed information is shown on a local level (1:25 000-1:5000) for a very limited area, where the distribution and characteristics of specific habitats or spawning areas can be described.
5. Wide cooperation is necessary for the success of complex inventory programmes. The VELMU programme is implemented through cooperation between seven ministries. It is coordinated by the Finnish Environment Institute (SYKE), other partners include the Geological Survey of Finland, the Finnish Game and Fishery Research Institute, Metsähallitus Natural Heritage Services, the Naval Research Institute, the Centres for Economic Development, Transport and the Environment located in coastal areas and Abo Akademi. Some other universities, institutions and consulting companies are also involved in many aspects of the VELMU programme.
6. The organisation of the VELMU programme should be adjusted to the need of broad cooperation and networking (cf. Fig. 12) in order to secure broad participation of stakeholders:
 - The VELMU programme is implemented in cooperation between many data producers and

Steering and funding

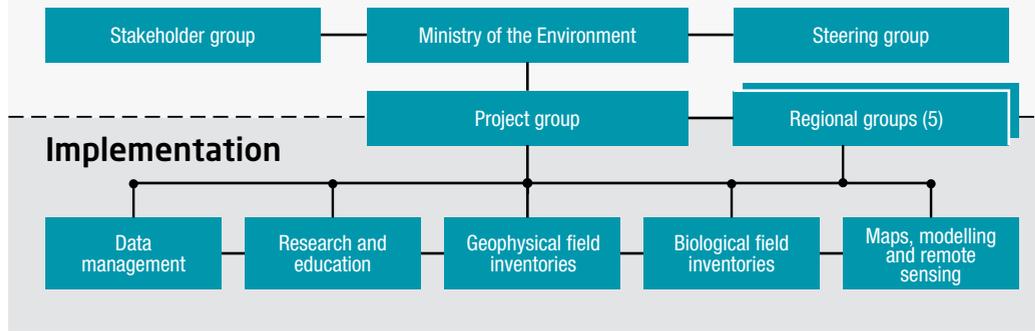


Figure 12. VELMU programme organisation

Source: redrafted from <http://www.ymparisto.fi> retrieved on 5 November 2011.

- stakeholders. The Steering Group supervises and steers the implementation and consists of representatives from the seven Ministries involved.
- The Stakeholder Group brings together stakeholders with interests in marine biodiversity and intends to ensure communication between the VELMU programme and various actors in order to launch a dialogue between the data producers and end-users.
 - The Project Group is responsible for practical implementation of the VELMU programme and oversees the work of five Working Groups. It is responsible for information flow between the Groups and for ensuring their complementarity.
 - Five Regional Groups bring together important regional stakeholders and data producers. Each group is responsible for identifying special features of its area and pressures as well as for the prioritisation of areas for mapping.
7. Current programmes on data and information collection should be integrated under an inventory programme that should act as an umbrella programme. The VELMU programme encompasses many local inventory projects such as:
 - BalMar (Baltic Marine Biotope Classification System),
 - MERVI (The Quark area underwater species inventory),
 - BIOGEO (Links between marine key biotopes and specific geological features: pilot survey of macrophytes in sublittoral moraine areas).
 8. International commitments should be observed while designing an inventory programme. The VELMU programme supports the implementation of number of international conventions like Convention on Biological Diversity, the fulfilment of obligations under EU legislation such as MSFD, Habitats and Birds Directives⁶⁴, and Water Framework Directive⁶⁵ and the achievement of HELCOM Baltic Sea Action Plan objectives.

⁶⁴ The Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora) and the Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds) form the cornerstone of the EU nature conservation policy. They are built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection.

⁶⁵ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy is a EU directive which obliges EU Member States to achieve good qualitative and quantitative status of all water bodies (including marine waters up to one nautical mile from shore).

CHAPTER 4: MINIMUM REQUIREMENTS FOR TRANSBOUNDARY MARITIME SPATIAL PLANNING IN THE BALTIC SEA REGION⁶⁶



One of the key ambitions in the BSR is to seek coherence between maritime planning efforts of the countries around the Baltic Sea. This is in line with the idea of the European Commission of coherent sea basin MSP, but was acknowledged as a principal task in the BSR much earlier when the recognition of transboundary impacts of the MSP took place in the late 1990s (dynamics of the sea knows no borders). The fluidity and changeability of the marine environment requires adaptability across borders, meaning that planners need to be able to respond to change in a manner that is coherent across spatial levels. This has consequences for the nature of the planning process and of course for monitoring.

Therefore, in order to deliver wise planning of the Baltic Sea space, it is essential that different MSP systems in Baltic Sea states can work together. The existing pan-Baltic agreement on common principles for MSP (HELCOM-VASAB MSP principles described already in Chapter 2 of the book) should be accompanied with a similar agreement on MSP content (e.g. transnational MSP topics), tools (shared information and data) and modes of cooperation together with the

⁶⁶ This chapter is an executive summary of the work of Heinrichs and Gee (2012) – the report commissioned by VASAB and HELCOM and financed under Plan Bohnia project.

necessary structures of decision-making. Establishing such a compatible, integrated system calls for common denominators for MSP systems in all Baltic Sea countries, so that MSP can be delivered at various spatial levels and everyone is pulling in the same direction.

Four areas have been identified as critical for coherent Baltic-wide MSP. Therefore, minimum requirements should be formulated on them:

- axiology: key principles and common understanding of key characteristics of MSP in the transnational context;
- institutional framework (for instance, legal provisions to facilitate MSP at the national level, the interplay of planning and management systems, the institutional set-up required for MSP both nationally and internationally);
- planning process and the content and scope of maritime spatial plans (focusing on the designation of areas that need transnational cooperation, data harmonisation and maps for stock-taking and the identification of key transnational topics);
- necessary supporting measures (e.g. training and learning).

For transnational cooperation in MSP to be successful, these minimum requirements should be understood as agreements between all BSR countries.

Using the established MSP cycle as a starting point (e.g. Ehler and Douvère 2009; Schultz-Zehden *et al.* 2008), it is necessary to examine first what transnational action is essential at which stage of the cycle in order to facilitate the production and implementation of a maritime spatial plan that is in line with the joint HELCOM-VASAB MSP principles. The necessary transnational elements that are at the core of transboundary MSP (transnational and/or cross-border MSP would be impossible without them) should be identified first. Then the necessary elements should be fitted into the existing maritime planning systems. The advantage of this “minimalist” approach is to show the basic structure and workings of MSP in pan-Baltic cooperation, highlighting the fact that much can be done by simply adding some jointly agreed elements (e.g. system of marine protected areas) to the different national MSP processes without the need to install a unified system for MSP in the whole Baltic Sea. This will allow overcoming the inadequacies of the current situation with respect to MSP in the Region while avoiding the trap of an overarching “fits all” MSP approach. Minimum requirements on transboundary MSP aim to get MSP systems to work together irrespective of their status or tradition, although transboundary MSP only makes sense if its actions and principles can actually be transferred and implemented in each country.

Transboundary MSP also has the practical challenge of data availability and compatibility. Most importantly perhaps, there is the question of how to organise a joint planning process that will lead to decisions on directions of regional spatial development and to the production of a transboundary maritime spatial plan or at least a national or subregional maritime spatial plan that has undergone transnational concertation. The minimum requirements set out here should therefore be seen as facilitating an emerging process of cooperation between the BSR countries, a process that goes beyond just consultation and leads to a coherent pan-Baltic approach to MSP.

Another challenge, one that extends beyond the scope of spatial planning alone, is to take account of the international framework of agreements that exists for the Baltic Sea. The additional question is how transboundary MSP can contribute to implementation of the existing environmental targets agreed under HELCOM or EU Directives such as the MSFD and Habitats Directive (Natura 2000 sites) and other targets agreed at the EU or sea basin level (e.g. in energy).

To become a living practice, the transboundary MSP needs to address all these challenges. The minimum requirements listed below show the path for doing so. Under the PartISEA project the requirements are going to be turned into actual governance model supported by the VASAB member countries. The work to that end has been started in 2013.

4.1. Minimum requirement I: A common understanding of key principles

An important minimum requirement is to agree on the role and scope of MSP within the transboundary setting. Although the purpose and basic idea of MSP is widely shared, different cultural, legal and environmental contexts have led to many definitions and interpretations of MSP. Whilst successful transnational MSP does not depend on a universal, once-and-for-all definition of MSP, it is important to agree on common principles upon which the transnational MSP process will be based. Although this may repeat what is already understood, the following describes basic characteristics of MSP the transnational process should be based on.

I.1. Characteristics of MSP in the transnational context

MSP is about four dimensions of sea space

MSP thinks about the sea in place-based dimensions, dealing with spatially relevant aspects related to the sea floor, the water column, the sea surface or the space above the surface. MSP covers both fixed structures such as offshore wind farms or temporary uses such as spawning areas to take account of the variety and (spatial and temporal) variability of sea-based resources and human uses of the sea.

MSP is no panacea for everything that goes on in the sea as certain factors cannot be addressed by MSP (e.g. eutrophication from land-based sources). MSP needs to be complemented by other tools of Baltic Sea governance, such as pollution/water quality management, or policies for dealing with climate change. MSP can be imagined as one of a number of vehicles available for ensuring that human use of the Baltic is sustainable.

MSP is about balancing interests, promoting compatibility among uses and contributing to environmental goals

The primary goal of MSP is to set out a framework for sustainable marine development by promoting efficient use of space and by balancing economic, ecological and social aspects (HELCOM 2010, 48). Both HELCOM and the EU emphasize that MSP also specifically contributes to reaching environmental goals, such as protecting the marine ecosystems in which human activities take place and safeguarding marine biodiversity.

Multiple existing uses (e.g. commercial fishing, recreational fishing and boating, subsistence uses, marine transportation, sand and gravel mining, and oil and gas operations) and emerging uses (e.g. offshore renewable energy and aquaculture) are managed in a manner that reduces conflicts and enhances compatibility among uses. MSP also provides for public access, and increases certainty and predictability for economic investments.

MSP promotes spatial efficiency

Recognising that sea space is finite, MSP uses sea space sparingly and actively encourages co-use. Rather than breaking fresh ground, planners do their best to promote the use of “used” sea space. This means making good use of synergies and considering options for multiple uses of sea space wherever this is possible.

MSP also achieves more efficient sea use by establishing better connections between offshore and onshore activities.

MSP is a constant process of negotiation

Nationally and transnationally, MSP is a process which analyses and allocates parts of four-dimensional marine spaces to specific uses (Douvère 2008). The continuous cycle of analysis,

planning, implementation, monitoring and evaluation requires appropriate mechanisms and practices, and may need to include a special range of stakeholders in the offshore environment.

Different spatial scales of MSP must form a coherent whole

MSP takes place at various spatial levels, and the scale for addressing particular aspects always depends on the issues in question. The transnational perspective addresses those topics that cannot be tackled by individual countries alone. Nevertheless, the different spatial scales of MSP must form a coherent whole, guided throughout by a pan-Baltic perspective on maritime space.

Irrespective of the scale considered, implementation of MSP remains in the hands of national or sometimes sub-national authorities which draw up legally binding maritime spatial plans. Pan-Baltic agreements on space, or even a pan-Baltic maritime spatial plan would still need to be translated into national (or sub-national) maritime spatial plans in order to be implemented and become binding by law.

MSP is embedded in a framework of national and international goals for the BSR region and existing legal regimes

Numerous goals and targets have been formulated for the Baltic Sea environment and the wider BSR; these are set out in various agreements or strategic documents (e.g. the HELCOM Baltic Sea Action Plan).

MSP must also observe international framework of legally binding agreements that exists for the Baltic Sea (for details see minimum requirement II.1).

1.2. The HELCOM-VASAB MSP principles

Finally, the aforesaid Joint HELCOM-VASAB Baltic Sea Broad-scale Maritime Spatial Planning Principles should be used as the basis for MSP in the BSR.

4.2. Minimum requirement II: Legal provisions and institutions

MSP cannot be implemented without a supporting legal framework at the national and transnational level. To identify legal minimum requirements for MSP one first needs to take a look at the existing legal framework on the international pan-Baltic and national level and check in what way this framework might restrict or encourage MSP.

II.1 International law and EU regulations

The sources of the Law of the Sea include customary international law as well as a range of conventions, treaties and agreements.

The above leads to three conclusions for common legal minimum requirements:

- The existing international legal framework, especially UNCLOS⁶⁷, is a precondition which needs to be taken into account when conducting MSP. Other important pieces of international legislation are the following: resolutions of International Maritime Organisation (IMO), which is responsible for traffic separation schemes, the International Convention for the Prevention of Pollution from Ships (MARPOL), UN Convention on Biological Diversity, Espoo Convention, Aarhus Convention, and HELCOM Recommendations. There are also a number of (binding) EU directives that apply to the Baltic Sea (such as the MSFD, or the EU Habitats and Birds Directives), or the EU Strategy for the BSR.

⁶⁷ The United Nations Convention on the Law of the Sea also called the Law of the Sea Convention or the Law of the Sea treaty.

- Some of these directives and conventions set a precedent for the exchange of information which can be built upon during the transnational MSP process. So the requirement is to make the best use of this opportunity⁶⁸.
- BSR countries should also join international conventions and agreements that facilitate joint MSP such as UNESCO Convention on the Protection of Underwater Cultural Heritage.
- It is imperative that all Baltic Sea countries possess a national legal basis for MSP.

II.2 Minimum requirements for the legal framework in the Baltic Sea states

National law on MSP should have the following minimum content:

- designation of the responsible authority:
 - for MSP in the exclusive economic zone,
 - for MSP in territorial waters,
 - for ICZM.
- specification of the issues to be regulated in the plan;
- the legal effect of the plan (whether the law is binding to public authorities only or to private persons too);
- basic requirements for the participation process at different stages of MSP;
- requirements for transnational and cross-border cooperation beyond the existing international and EU regulations;
- monitoring requirements;
- the maximum period for updating and revision of the plan.

This also forms the basis for any prospective quality assurance that may be conducted of the MSP process.

II.3 Legal requirements beyond the existing EU regulations for EIA and SEA

The environmental assessment of defined projects, plans and programs is regulated by EU law. This is not the case for socio-economic assessment. At the project level some countries, Germany for example, regulate the combination of environmental impact assessment (EIA) and the socio-economic impact assessment in the form of a Territorial Impact Assessment (TIA).

At the programme level an element is needed (ODPM 2005) which would complement the well-regulated EU SEA⁶⁹ by a socio-economic programme assessment (cf. Fig. 13).

To fill this gap the UK has introduced a sustainability assessment (SA) for MSP – there called “Sustainability Appraisal”. In line with the three dimensions of sustainable development, this considers the economic, social and environmental impacts of an emerging plan. The aim in undertaking SA is to identify likely significant adverse effects of a plan and take steps to avoid and/or mitigate these, as well as identify opportunities to maximise the plan’s sustainability. The requirement for SA in the MSP process is outlined in the UK Marine and Coastal Access Act 2009, which stipulates that all marine plans are subject to SA, and that it is undertaken in line with the

⁶⁸ Espoo Convention and its amendment with the Protocol on Strategic Environmental Assessment (Kyiv (SEA) Protocol of 2003) obliges the Baltic Sea States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across borders. The EU SEA Directive makes a similar stipulation in that Member States drafting a plan or programme with potentially significant effects on the environment must consult the other Member State(s).

⁶⁹ The purpose of SEA is “...to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to contributing to sustainable development” (Article 1 of the SEA Directive). The SEA remains an environmental assessment although the SEA Directive refers “to a possible need to consider issues such as “population” and “human health”.

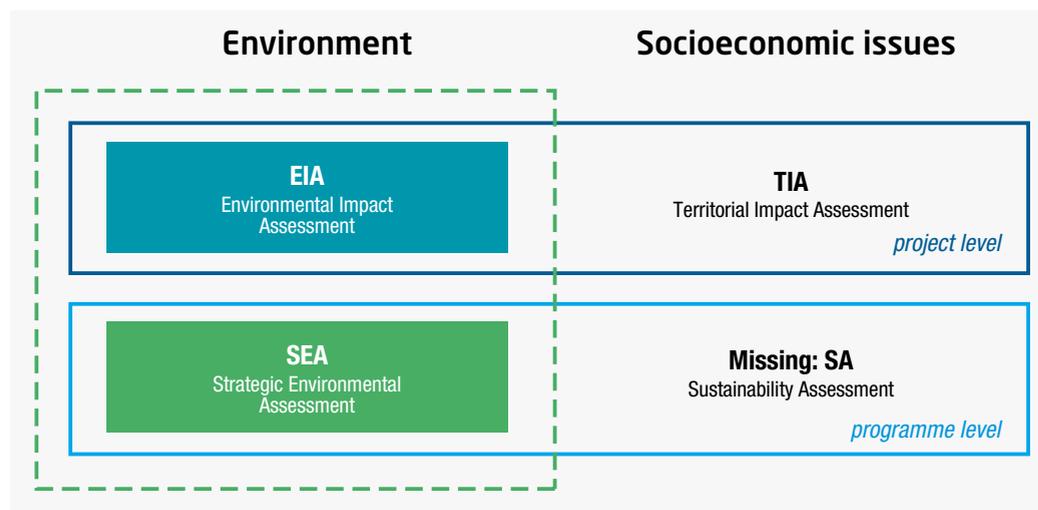


Figure 13. The relationship between EIA, TIA, SEA and SA

Source: Own elaboration by Bernhard Heinrichs.

procedures prescribed by the EU SEA Directive (MMO 2012, chapter 3). The open question is whether the SEA should be complemented by a SA as outlined above. If the answer is positive then the SA should be seen as a minimum requirement for MSP in the Baltic Sea. After its successful introduction as a Baltic Sea pilot case, an amendment of the EU SEA Directive could be considered in order to cover also SA.

II.4 Requirements for transnational institutions

To implement MSP at the transnational level, consideration should be given to how it is to be coordinated. The EU Strategy for the BSR recommends no new institutions. *"The Baltic Sea Region has many cooperative structures: we should not create new ones that could impose added administrative overhead without contributing to effective action"* (EC 2009).

Nevertheless, to achieve a pan-Baltic agreement on minimum requirements for MSP, a formal ministerial coordinating body for pan-Baltic MSP issues is needed (formed by the national Ministers responsible for spatial planning). As a minimum requirement, this body has to agree on the common principles to be applied and to approve the jointly agreed methods and contents for maritime spatial plans. This ministerial coordinating body could be linked to the Council of the Baltic Sea States (CBSS). The CBSS should ensure that agreed pan-Baltic MSP strategies are incorporated into the overall BSR development concepts as well as in the EU-Northern Dimension policy.

Common methods and contents need to be prepared by a transnational coordinating body at the technical level, which is another minimum requirement. This transnational coordinating body should bring together representatives from the national planning authorities plus other relevant institutions and stakeholders (including Russia) and the sectoral national agencies concerned. It is important that this body represents all relevant stakeholders as this ensures implementation of HELCOM-VASAB MSP principle No. 6 on participation and transparency for the transnational level, as well as HELCOM-VASAB MSP principle No. 8 on coherence between terrestrial planning and MSP.

Both bodies need to be accountable and work in a transparent manner. Importantly, this does not mean new institutions. HELCOM and VASAB have formed a joint working group on MSP that could be further developed and strengthened to fulfil the requirements of the coordinating body at the technical level

mentioned above. The ministers of both, HELCOM and VASAB, could form a corresponding decision making body whose task it is to approve the proposals of the coordinating body at the technical level.

4.3. Minimum requirement III: The planning process and content of the plan

To define common minimum requirements for MSP at the transnational level the entire MSP planning cycle needs to be analysed. The key question is where the national MSP process needs to be supplemented by a transnational element in order to implement the HELCOM-VASAB MSP principles (as described in Chapter 2) and arrive at holistic spatial management for the Baltic Sea.

The MSP *BaltSeaPlan Vision 2030* (Gee *et al.* 2011) has defined a simpler planning cycle that is limited to the core elements of the MSP process (cf. Fig. 14):

1. Preparation phase:

- assessing needs based on environmental requirements and user interests,
- stock-taking according to needs.

2. Elaboration and consultation phase:

- working out of a draft spatial plan (MSP) and environmental report (SEA),
- consultation with all relevant stakeholders,
- amending the draft MSP,
- second consultation,
- compilation and approval of the final MSP.

3. Post-approval phase:

- application of MSP regulations,
- implementation of management measures,
- regular monitoring,
- revision in due time.

Figure 14: The MSP process according to MSP BaltSeaPlan Vision 2030

Source: Gee *et al.* 2011.

This cycle has been used for developing minimum requirements on the MSP process and the joint HELCOM-VASAB MSP principles are taken into account each step of the way.

III.1 Entering the MSP process: The necessary preparation tools

III.1.1. Supporting an inclusive approach throughout

An important prerequisite for MSP is that each planning stage should be as inclusive of all relevant sectors and interests as possible. A common minimum requirement is to make use of existing networks and precedents for cross-border cooperation (e.g. the EU requirements for transboundary consultation, see III.1.4.) to support such an inclusive approach.

III.1.2. Vision and objectives

The need for the elaboration of a maritime spatial plan is in most cases determined in response to actual pressures or conflicts. From a practical point of view maritime spatial plans should be drawn up first of all for those areas where spatial conflicts are imminent or can be expected to arise due

to current trends. The issues at stake also determine the scope of MSP, including the need for transnational coordination and concertation.

Whatever scope and scale is chosen for the maritime spatial plan, it should be guided by a pan-Baltic perspective. Such a perspective considers common spatial aims and objectives for Baltic Sea space as a whole, acknowledging, in particular, the issues that need to be tackled at a pan-Baltic level.

An area-specific vision is clearly the desirable option at this stage. The advantage of a fully developed vision is that it concerns long-term spatial needs and solutions, giving Baltic Sea countries the opportunity to actively set the agenda rather than just responding to external developments. A vision would implement HELCOM-VASAB MSP principle No. 3, which states that MSP should have a long-term perspective with respect to the goals it seeks to attain and its environmental, social, economic and territorial effects. It also states that MSP should be based on long-term visions, strategies and action plans. If, on the other hand, a set of common principles has been identified upon which a maritime spatial plan for a certain part of the Baltic Sea is based, it is not a minimum requirement to develop these into a specific vision for this part of the Baltic Sea.

With or without a common vision, clearly defined objectives are a must for any maritime spatial plan and successful MSP process. There is also a need to define:

- the planning area,
- the issues to be resolved,
- responsibilities,
- the regulations needed, and
- the management tools including finances.

In doing so, they need to take into account the transnationally agreed principles for MSP and reflect existing national commitments.

III.1.3. General information needs for the preparatory stocktaking

The preparatory phase of transnational MSP calls for detailed general information on the following topics:

- the physical and environmental characteristics of the sea area in question and wider sea environment;
- the human uses of that area (drivers and pressures, activities in the sea and on land);
- the socio-economic situation on land (demography, economy etc.);
- the relevant policy and legal background affecting the sea and sea space.

A comprehensive picture of the sea area in question is needed. This should first set out the major characteristics of the sea space in question and the key sensitivities and values of the marine environment encountered there. This is a prerequisite for implementing HELCOM-VASAB MSP principles No. 2 (the ecosystem approach) and No. 9. Ecological analysis should be accompanied by analysis of the current and expected pressures affecting sea space (possibly using scenarios as an aid) and the socio-economic opportunities and threats arising from different development scenarios. It should also take a look at what creates these pressures and whether these driving forces are likely to apply in the future (e.g. trends and developments in key sectors, political priorities, broader economic trends and demographic developments in the medium term). Finally, it is important to acknowledge existing qualitative or quantitative targets for the most important topic areas with impact on the sea area in question. The EU and HELCOM have defined a series of environmental targets such as water quality targets which need to be taken into account. Others that may apply include energy targets or other sectoral targets.

It is evident that the better the knowledge of the marine environment and planning area in question, the more solid the planning process and the better justified the balance that can be struck between

the different interests. This means that every MSP process effectively begins with a dilemma. On the one hand, the marine environment is often little known. Research is complex and expensive, and the available data have not always been translated into spatially relevant information. On the other hand, the political decision to draft a maritime spatial plan is usually driven by the need or desire to resolve a set of spatial conflicts within a given timeframe, which limits the possibility of engaging in extensive research. Availability of spatial information is thus a major difference between MSP and spatial planning on land: on land, spatial information is usually more easily available and more readily accessible. Despite this, it is crucial to strike the right balance here between decision-making in due time and improving the available evidence and information base. The MSP process itself can be used to fill information gaps, by drawing together existing information, commissioning research or by inviting stakeholders to supply information.

In terms of the MSP process, the minimum requirement is that responsibility for collating this information should be clearly assigned. The resulting preparatory stocktaking should be agreed by all partners involved.

III.1.4 . Topics with transnational relevance in maritime spatial plans

For the preparatory exchange of information between countries, topics then need to be identified which are of transnational or cross-border significance⁷⁰, which include:

- nature conservation,
- fisheries,
- shipping including fairways,
- cables and pipelines,
- offshore wind farming,
- sand and gravel extraction,
- oil and gas extraction,
- military use,
- protection of underwater cultural heritage,
- recreational activities.

The necessary information on these topics (e.g. current status, intensity and speed of expected developments, likely spatial needs, environmental impact) is likely to be patchy. A minimum requirement is to pull together whatever is available (also using stakeholder process to that end), noting any gaps for future research. A conflict matrix for these topics should then be drawn up for the specific planning area and scale in question. This should then be translated into stocktaking maps that show where the main areas of conflict lie and where competing spatial claims meet (including conflicts with important environmental parameters).

Mapping data harmonised between all Baltic Sea countries on the topics listed here would be a key common requirement for compatible maritime spatial plans of high quality, which would effectively mean full implementation of the EU INSPIRE Directive. At present, this ideal solution seems unrealistic but it does deserve further attention. It is therefore suggested as a common minimum requirement that each Baltic Sea country draw up an inventory of all their available mapping data. This would be exchanged among all Baltic Sea countries and updated on a regular basis.

⁷⁰ The MSP *BalticSeaPlan Vision 2030* (Gee et al. 2011) puts "linear elements at the heart of transnational MSP thinking in that they truly connect the Baltic Sea states across national borders. Infrastructure such as cables and pipelines represent obvious linear elements, as do shipping lanes which are not hard infrastructure. Blue corridors for living species also count as linear elements: these are instrumental in ensuring connectivity between habitats, making sure that nursery areas, feeding areas or spawning grounds are linked to one another."

III.1.5. Transnational cooperation in the preparatory phase

In the preparation phase (assessing the needs for MSP based on environmental requirements and user interests, as well as stocktaking according to needs) the following transnational and cross-border cooperation needs can be identified:

- information on planning intentions with possible cross border effects,
- information exchange on cross border user interests,
- information exchange on cross border environmental requirements,
- exchange of available relevant data on the ecosystem, uses and projects.

Concerning the information exchange, EU regulations (SEA Directive) exist that have to be applied properly and in good time. Therefore no additional procedural minimum requirements are necessary except the ones mentioned above.

III.2 The planning and consultation phase

III.2.1. Minimum requirements for the designation of sea areas

As explained in I.1., the maritime spatial plan regulates human uses in the sea in order to achieve sustainable marine development and to contribute to environmental goals, such as protecting marine ecosystems. Most of its regulations do not apply to the entire sea but have to be area-specific. All areas that need the same type of regulation can be grouped as one type of designated areas.

In order to draft a maritime spatial plan, a set of common types of designated areas is therefore required with clear definitions of their legal implications (see below). This is a must because, once approved, the statutory maritime spatial plan is binding, at least for the public authorities that grant permits for sea uses.

As a minimum requirement, the proposal is to limit the designation of areas to these 3 basic types using the following terms and definitions:

- **General use area**, where no use is given priority or restricted by the rules of the spatial plan. This is a “white” area where no specific additional subareas are necessary. Naturally, any uses are still subject to the international and national legal restrictions for sea uses. White areas such as the general use area are an important reserve of space that can be made available to future sea uses.
- **Priority use area**, where no use is allowed that would significantly constrain the use that is given priority in this designated area. Priority use areas could be shipping lanes, nature conservation areas, offshore wind farm sites, fish spawning and nursery areas, material resources, marine archaeological sites, or areas important for tourism.
- **Restricted access area** where certain uses are prohibited. A restricted access area is the opposite of a priority use area, in that it does not give a privilege to a certain use but prohibits it. That can apply to wind farms, shipping, fishing and others.

In addition there is a need for an additional type of designated area as a minimum requirement:

- **Targeted management area**, which complements the underlying basic area(s) with detailed management regulations where needed.

The main purpose of the targeted management area is to specify detailed regulations which may apply to any of the three basic types of designated areas. The regulations set out in this superimposed designation can be permanent or temporary and cover a whole basic subarea or parts of it. The most prominent cases for such specific management regulations are the Natura 2000 area management plans.

III.2.2. Minimum requirements for MSP maps

The need for a common legend (common symbols and colours) for the most important topics with transnational or cross-border significance and its role in facilitating cross-border cooperation during the preparatory stocktaking of mapped information has already been mentioned in this book (see Chapter 2 and Chapter 3). For the maps being part of maritime spatial plans the need for a common legend is even more obvious because the regulations stipulated in these maps may directly affect neighbouring countries.

The content of a MSP map can be divided into two groups: designations and information only. Designations are those areas where the maritime spatial plan imposes restrictions or gives privileges to certain sea uses. All other items shown in the map, in particular physical objects, are shown for information only.

A common legend defining the minimum content of any MSP map is a necessary minimum requirement to enable the transnational or cross-border cooperation in the MSP process.

Elements contained in the common legend could comprise the following:

Shipping

Priority use area shipping:

- clearway,
- traffic separation system,
- anchorage area,
- roadstead.

Reservation area shipping (optional).

Nature Conservation

Priority use area nature conservation:

- designated Natura 2000 areas (sites),
- Natura 2000 to be designated,
- Baltic Sea Protected Areas⁷¹ not included in Natura 2000.

Reservation area nature conservation (optional).

- other areas of possible great ecological value.

Wind energy:

- priority use area wind energy,
- reservation area wind energy search area (optional).

For information:

- approved,
- under construction/operational.

Submarine linear infrastructure:

- priority use area corridor/gate for pipelines, cables.

For information:

- pipelines,
- cables.

⁷¹ Protected Areas in the Baltic Sea designated by Helsinki Commission. For details please see information on the HELCOM portal dedicated to this issue: http://www.helcom.fi/environment2/biodiv/en_GB/bspas/.

Military Area (for information only).

Extraction:

- priority area sand, gravel or aggregate extraction,
- reservation area sand, gravel or aggregate extraction (optional).

Platforms (for information only).

A common standardised graphic design has to be attributed to these elements of the MSP maps.

III.2.3. The issue of common scales

Sometimes a controversial question is whether the scales of MSP maps should be standardised. There is an obvious need to standardise scales in the case of pan-Baltic sea maps; such maps, however, will primarily be analytical and/or informative rather than actual maps. For transnational information-bearing maps, a joint scale should be agreed as a necessary minimum requirement.

The need for a common scale is also obvious for cross-border maritime spatial plans. The scale chosen, however, may differ depending on the size of the plan area. It therefore makes no sense to fix one scale for all cross-border maritime spatial plans. The suitable scale should be agreed by the parties involved on a case by case basis.

III.2.4. Transnational information and cooperation needs during plan elaboration

National spatial plans and programmes might affect the spatial development of the seas of neighbouring countries. Their development therefore needs cross-border coordination even though they exclusively cover national areas (HELCOM-VASAB MSP principle No. 7, which states that, whenever possible, maritime spatial plans should be developed and amended with the BSR perspective in mind).

For the elaboration and consultation phase the following transnational and cross border cooperation needs can be identified:

- coordination/reconciliation of planned designations of areas/regulations with possible transnational or cross border effects,
- elaboration of a joint (transnational) plan where necessary (for example, for cross border linear infrastructure, although this may be better decided on a case by case basis).

For the **consultation process** EU regulations exist concerning public participation linked to the SEA. These are binding upon all Baltic Sea countries except Russia and would need to be negotiated with Russia to cover the whole Baltic Sea.

The socio-economic analysis in the consultation process is not regulated by the EU. A useful additional minimum requirement might be to make it compulsory to include the socio-economic analysis in the consultation process, even though this may be obvious (minimum requirement).

III.3 Minimum requirements in the post-approval phase

The main activities in this last part of the planning cycle are the following:

- application of MSP regulations,
- implementation of management measures,
- regular monitoring,
- revision in due time.

III.3.1. Application of MSP regulations

The main purpose of the maritime spatial plan is to grant or deny permits to private or public sea uses based on the regulations set out in the plan (e.g. for a cable, a wind farm, dredging). If the proposed sea use has potential transnational or cross-border implications, consultation with the countries concerned is a minimum requirement.

In addition to that, for most large scale planned investments a project related EIA is compulsory according to the EU law. This analysis should be extended to all relevant social and economic aspects of the project in the form of TIA, as proposed by Gee *et al.* (2011) and under minimum requirement II.3 in this book.

III.3.2. Implementation of management measures

Maritime spatial plans need to be complemented by a variety of management measures. For Natura 2000 areas, EU regulations stipulate a management plan which sets out concrete management measures related to the specific protection objectives of the area.

Management plans accompanying the different types of designated areas specified in the maritime spatial plan need to be implemented, meaning enforcement of the (temporary) rules that apply. Depending on the type of designated area (and on the management objective) these rules may be strict.

A different form of management is required in case of specific projects that might have been foreseen in a maritime spatial plan (e.g. cables for a Baltic Sea Supergrid). Although the implementation of such a structure is in the hands of the private or public investor, it is subject to supervision according to the regulations of the plan (see minimum requirement No. III.3.1.). If that structure has transnational or cross-border implications specific agreement is required among the countries concerned, not least with respect to the precautionary principle set out in HELCOM-VASAB MSP principle No. 4.

III.3.3. Monitoring, evaluation and revision

“The processes of monitoring, evaluation, and reporting are fundamental components of effective spatial management as they provide insight into the effectiveness of the plan and facilitate adaptive management. Monitoring is essential to assess the state of ecosystems and the services they provide, the impact of human disturbances, and responses to restoration efforts.” (Blæsbjerg *et al.* 2009: 27). Monitoring, however, should not be restricted to the natural environment, but also include the socio-economic environment, with particular focus on existing marine uses and the trends that drive developments in sea use. Monitoring and evaluation should also include MSP process itself to establish how effective it is in responding to the issues at hand. Due to the complexity of the marine socio-ecological system in question, monitoring is a difficult issue, and performance indicators need to be carefully selected. Prior agreement is necessary on what is to be evaluated. This particularly applies to any indicators describing the quality of the MSP process itself.

Monitoring and evaluation must be done on a regular basis. In order to benefit MSP, monitoring results need to be translated into spatially relevant information. The indicators used should be appropriate, which means they need to have bearing on space and relate to the objectives set out in the spatial plan. Ideally, they should also be cost-effective (HELCOM-VASAB MSP principle No. 6). The results should be reported in a manner that is understandable and usable to all parties involved.

In defining common minimum requirements, we are confronted with the same problem as in the stocktaking phase (see minimum requirement III.1.4.). Harmonised performance indicators between all Baltic Sea countries on all topics relevant to the objectives of the MSP would clearly be desirable, but such a detailed agreement seems unrealistic. Therefore, the same common minimum requirement is

suggested as in the stocktaking phase with respect to mapped information: each Baltic Sea country draws up an inventory of all their available data that are needed to define the appropriate indicators. This inventory would be updated on a regular basis and exchanged among all Baltic Sea countries.

Furthermore, a common timetable should be agreed for the updating and revision of the maritime spatial plan (minimum requirement). The BALANCE project suggests 6 years as an appropriate time span for revision. This would implement HELCOM-VASAB MSP principle No. 10, which emphasizes that MSP is a continuous process. Besides, MSFD requires a six-year cycle.

4.4. Minimum requirement IV: Learning and training

The MSP process is an open one, and solutions may differ from conventional “do’s and don’ts”. As such, all those participating in this process may need to break with long-held ideas and concepts of planning and management. Rather than dismiss contradictory perspectives of the world, the MSP process incorporates multiple viewpoints into the same problem-solving process, focusing on quality of information and subjective value judgments as much as on hard scientific fact.

An important requirement is to make sure that all stakeholders understand MSP as a constant process of learning. This in turn requires learning institutions. Learning at the content level means regular assessment of the national and international policy context in which the common spatial vision is placed, and to take note of the results of socio-economic and ecological monitoring when drawing up new MSP content. Learning at the process level means applying indicators for progress in MSP in line with EU requirements. Therefore, the minimum requirement is that MSP process should be subject to regular monitoring just as much as marine space itself, to make sure the process yields the intended results (such as participation and transparency). Process targets should be drawn up and agreed for transboundary MSP processes.

The MSP process relies on informed stakeholders. Therefore, the minimum requirement is to establish mechanisms to ensure the regular involvement of the necessary stakeholders at the transboundary level.

There is also a necessity to inform politicians of the needs and benefits of transnational MSP, such as the economic benefits it can yield. Planners themselves also need training in the specifics of MSP and how this is different from land-based spatial planning.

Generally, minimum requirements for transboundary MSP in the BSR can be summarised as follows.

Minimum requirements for the legal framework in the Baltic Sea states

All Baltic Sea countries require national legislation on MSP. This should have the following minimum content:

- make the best use of the possibilities offered by the existing international agreements, conventions and EU Directives;
- designation of the responsible authority:
 - for MSP in the EEZ,
 - for MSP in territorial waters,
 - for ICZM.
- specification of the issues to be regulated in the plan;
- the legal effect of the plan (whether the law is binding to public authorities only or to private persons too);
- basic requirements for the participation process beyond the EU regulations for SEA requirements for

- transnational and cross-border cooperation beyond the existing international and EU regulations;
- monitoring requirements;
- the maximum period for updating and revision of the plan.

Minimum requirements for transnational institutions

- To achieve a pan-Baltic agreement on minimum requirements for MSP, a formal ministerial coordinating body for pan-Baltic MSP issues is needed. This body has to agree on the common principles to be applied and to approve the jointly agreed methods and contents for maritime spatial plans.
- Common methods and contents including an integrated vision for the Baltic Sea as a whole need to be prepared by a transnational coordinating body at the technical level.

Minimum requirements for plan preparation

- Clearly defined objectives are a must for any maritime spatial plan and successful transnational MSP process. There is a need to define the planning area, the issues to be resolved, responsibilities, the regulations needed and the management tools available including finances.
- Transnational and cross-border cooperation requirements in the preparatory phase (assessing the needs for MSP based on environmental requirements and user interests, as well as stocktaking according to needs) are the following:
 - information on planning intentions with possible cross-border effects;
 - information exchange on cross border users’ interests;
 - information exchange on cross border environmental requirements;
 - exchange of available relevant data on the ecosystem, uses and projects.
- An agreement on general information needs for the preparatory stocktaking has to include:
 - the physical and environmental characteristics of the sea area in question and wider sea environment;
 - the human uses of that area (drivers and pressures, activities in the sea and on land);
 - the socio-economic situation on land (demography, economy etc);
 - the relevant policy and legal background affecting the sea and sea space.
- The agreement on the main topics with transnational relevance in maritime spatial plans should include the following items:
 - nature conservation,
 - fisheries,
 - shipping including fairways,
 - cables and pipelines,
 - offshore wind farming,
 - sand and gravel extraction,
 - oil and gas extraction,
 - military use,
 - archaeology and cultural heritage,
 - recreational activities.
- Mapping data harmonised between all Baltic Sea countries would be a key common requirement for compatible maritime spatial plans of high quality. At present, this ideal solution seems unrealistic. It is therefore suggested as a common minimum requirement that each Baltic Sea country draw up an inventory of all their available mapping data.
- To facilitate the cross border cooperation a common legend (common symbols and colours) of the most important topics with transnational or cross border significance has to be elaborated.

Minimum requirements for the planning and consultation phase

The designation of areas, where the maritime spatial plan imposes restrictions or gives privileges to certain sea uses, is the core of any maritime spatial plan. A full set of possible designated areas (sometimes called zones) is not needed as a common minimum requirement, but an agreement on at least the following three basic types of designated areas should be reached to facilitate the transnational cooperation:

- **General use area**, where no use is given priority or restricted by the rules of the spatial plan. This is a “white” area where no specific additional subareas are necessary. Naturally, any uses are still subject to the international and national legal restrictions for sea uses.
- **Priority use area**, where no use is allowed that would significantly constrain the use that is given priority in this designated area. Priority use areas could be shipping lanes, nature conservation areas, offshore wind farm sites, fish spawning and nursery areas, material resources, marine archaeological sites, or areas important for tourism.
- **Restricted access area** where certain uses are prohibited. A restricted access area is the opposite of a priority use area, in that it does not give a privilege to a certain use but prohibits it. That can apply to wind farms, shipping, fishing etc.

In addition there is a need for an additional type of designated area as a minimum requirement:

- **Targeted management area**, which complements the underlying basic area(s) with detailed management regulations where needed.

Transnational cooperation during the elaboration of the plan in form of information and concertation is needed for planned designations of areas/regulations with possible transnational or cross border effects. The joint development of a transnational plan or parts of it is needed, where information and concertation is not sufficient (e.g. for cross-border linear infrastructure).

Minimum requirements for the post-approval phase

- The main purpose of the maritime spatial plan is to grant or deny permits to private or public sea uses based on the regulations set out in the plan (e.g. for a cable, a wind farm, dredging). If the proposed sea use has potential transnational or cross-border implications, consultation with the countries concerned is a minimum requirement.
- If a maritime spatial plan contains infrastructure projects with transnational or cross-border implications the management of such a project requires a specific agreement among the countries concerned.
- Monitoring: Harmonised performance indicators between all Baltic Sea countries on all topics relevant to the objectives of the MSP are desirable, but such detailed agreement seems unrealistic. A minimum requirement: each Baltic Sea country draws up an inventory of all their available data that are needed to define the appropriate indicators. This inventory would be updated on a regular basis and exchanged among all Baltic Sea countries.
- Consultation with the countries concerned is needed for updating and revision of the plan using the same standards as for plan elaboration.

Minimum requirements for the learning process

- To establish mechanisms to ensure the regular involvement of the necessary stakeholders at the transboundary level that should work as a learning process.
- To ensure that MSP process is subject to regular monitoring just as much as marine space itself.
- Process targets should be drawn up and agreed for transboundary MSP processes.

CHAPTER 5: CONCLUSIONS AND WAY FORWARD

5.1. Future oriented conclusions based on good practices and minimum requirements

Since the publishing of the EU Green Paper on Maritime Policy (EC 2006) MSP has remained high on the EU political agenda. Some scholars (cf. Dühr *et al.* 2010: 227) explain this growing interest in MSP through the prism of the ongoing paradigm shift towards a more integrative approach in policy making, whereas others (cf. Cieślak 2009; Ehler and Douvre 2009:19) attribute the acceleration of spatial conflicts and appearance of new types of benefits of sustainable marine exploitation as the impetus behind the MSP boom. The European Commission launched its Blue Growth initiative (cf. below) in 2012 (EC 2012b). MSP could be an important part of it. In the next programming period (2014-2020) the current European Fisheries Fund will be turned into the European Maritime and Fisheries Fund (EMFF) in order to support Blue Growth.

“Blue growth” is a long-term strategy to support growth in the maritime sector as a whole. It aims to:

- *Identify and tackle challenges (economic, environmental and social) affecting all sectors of maritime economy;*
- *Highlight synergies between sectoral policies;*
- *Study interactions between the different activities and their potential impact on the marine environment and biodiversity;*
- *Identify activities with high growth potential in the long term and support them by:*
 - *removing the administrative barriers that hamper growth,*

- fostering investment in research and innovation,
- promoting skills through education and training.

Blue growth focuses on existing, emerging and potential activities such as:

- short-sea shipping,
- coastal tourism,
- offshore wind energy,
- desalination,
- use of marine resources in the pharmaceutical and cosmetics industries⁷².

Also in 2012, the Green Paper on “*Marine Knowledge 2020; From seabed mapping to ocean forecasting*” (EC 2012a) was published.

The European Commission has also conducted investigations on the possible economic, social and environmental impacts of EU policy options regarding the implementation of MSP in the EU. The options screened were the following: to maintain the status quo or issue recommendations, directives or regulations on MSP. After examining feedback received the European Commission released (in March 2013) a proposal for a Directive of the European Parliament and of the Council establishing a framework for MSP and integrated coastal management. The draft Directive has a procedural nature. Its purpose is prompting EU Member States to jointly start a coordinated MSP.

Member States will be required to develop and implement coherent processes to plan human uses of maritime space and to ensure the sustainable management of coastal areas, and to establish appropriate crossborder cooperation among them. A key added value of the proposal is support for land-sea connectivity by requiring coherence between maritime spatial planning and integrated coastal management. Planning details and the determination of management objectives are left to Member States. The EU will not take part in these processes. The proposal does not interfere with Member States’ prerogatives for town and country planning (terrestrial planning). (EC 2013)

As emphasized by the European Commission, MSP requires cross-border cooperation and harmonization. This is due to the very nature of the sea space as the planning object. For instance, Andrea Morf⁷³ underlines that MSP is not like terrestrial spatial planning, namely, dividing a cake into smaller portions. Instead, MSP is like cooking a soup in which all ingredients are mixed together and influence each other. So MSP is a very complex and demanding process. The MSP provisions can influence stakeholders from various countries, not only the immediate neighbourhood of the planned area. As pointed out by Jay *et al.* (2012), MSP is “a new domain for planning situated in the overlapping, but distinct domains of marine management and spatial planning”.

The demand for MSP grows fast with shifting more and more different types of human activities to the sea. We are witnessing a process that sea space is becoming a scarce resource requiring careful management (Zaucha 2009; 2012b). Sea space as a resource cannot be perceived any longer as plentiful and abundant as it was the case in the past. But not all BSR communities might be prepared for more stringent sea space restrictions. Thus, despite all the above-described efforts, public support and recognition of the role of MSP among general public and sea stakeholders has been increasing only gradually. Changing people’s perception of the sea space requires time, since the expected turn is of a quite radical nature. Thus the introduction of MSP limited only to new legal provisions unless coupled with capacity building and awareness rising might become a Pyrrhic

⁷² Baltic Sea Conference, 2013 retrieved on 22nd of October 2013 from <http://balticseaconference.eu/news/2013/8/21/what-is-blue-growth>.

⁷³ Quotation from presentation delivered at EU Maritime Days in Gothenburg, Sweden 21-22 May 2012.

victory (that is, the result can be a low level of the actual enforcement of the MSP provisions and regulations).

Consequently, the BSR is searching for a right mode for introducing MSP at the national and/or regional level while ensuring its cross-border coherence and compatibility. And the Region has a solid record in that – more than ten years of joint actions and collaboration in MSP. This is impressive for such a new and fresh concept. BSR is a European forerunner in this regard. One should acknowledge the constantly growing political support for MSP in the BSR. And of course some strong pillars for the BSR cooperation in MSP have been established in the course of the already mentioned projects and efforts of the pan-Baltic organizations.

This said, and having in mind, in particular, the above-described good practices and minimum requirements, one can conclude that all the necessary ingredients for conducting coherent transboundary MSP do exist in the BSR. Now there is time to put them together and to launch the process. A key challenge is to find the right starting point and proper cooperation vehicles. A few thoughts on that are outlined below.

1. There are three pillars that should be used for framing joint efforts in the field of MSP in the BSR:
 - HELCOM-VASAB MSP Principles;
 - MSP *BaltSeaPlan Vision 2030*;
 - minimum requirements model.
2. *BaltSeaPlan Vision 2030* provides axiological foundations for transboundary MSP in the BSR. It requires broad dissemination efforts among maritime spatial planners and decision makers in the Region. This should be a joint effort of educational facilities and public authorities responsible for MSP in the BSR countries.
3. The minimum requirement model and HELCOM-VASAB MSP principles provide guidelines on transboundary MSP procedures, scope and content. There is a need for monitoring progress in their implementation from BSR level.
4. To this end, an open method of coordination can be used. The monitoring process should be linked to the EU Strategy for BSR and its goal to draw up and apply maritime spatial plans throughout the BSR by 2020 which are coherent across the borders and are based on and apply the ecosystem approach. The working programme on achieving this goal should be established with concrete milestones and transparent ways of monitoring their achievements. Periodical assessment of the progress should be conducted by the joint HELCOM-VASAB MSP Working Group, the mandate of which has been extended until the end of the year 2016.
5. The open method of coordination would require a proper institutional set-up. For instance, the current joint HELCOM-VASAB MSP Working Group should be turned into a network of national focal points having a clear mandate for conducting MSP in their countries, complemented by more practically oriented contact points for the purpose of transnational consultation and joint planning as well as group of researchers analyzing MSP and related processes.
6. Good practices that have outlined benefits for MSP from transboundary collaboration should be jointly addressed in order to effectively alleviate key bottle-necks for transboundary MSP in the BSR. It is of major importance that experience accumulated under these good practices should inspire and influence priorities of various EU transnational and cross-border programmes such as the BSR Programme, a new Horizon 2020 Programme⁷⁴ or BONUS 185⁷⁵. A special BSR Task Force should be established for this purpose under the auspices of, for instance, the joint

⁷⁴ Horizon 2020 (The EU Framework Programme for Research and Innovation) is an EU financial instrument for supporting research and innovation aimed at securing Europe’s global competitiveness and running from 2014 to 2020.

⁷⁵ The BONUS ‘Joint Baltic Sea Research Programme’ is a financial mechanism supporting transnational research related to the protection of the Baltic Sea. BONUS is financed by the BSR Member States and the European Commission’s Research Framework Programme (FP7).

HELCOM-VASAB MSP Working Group. The Task Force should afterwards become a depository of the project results and be responsible for their transmission to the policy level. This would allow creation, for instance, of the BSR data exchange network as proposed in the data model or extension/upgrade of the VELMU initiative to the BSR level.

7. Finally, it is important to open MSP beyond the spatial planners group. The dialogue with stakeholders initiated under PartiSEApaté should be continued first of all on the national basis. The process of preparation of national Maritime Policies should be used as a vehicle for the creation of permanent fora of exchange of ideas and elaboration of policy solutions by maritime spatial planners and sectoral authorities supported by key stakeholders. Collaboration of national MSP focal points with stakeholders is an essential precondition for genuine transboundary consultations on marine spatial plans and the first step in MSP capacity building.

5.2. Possible directions of development of the Baltic maritime spatial planning

While enhancing transboundary MSP in the BSR, one should not expect its uniformisation and profound standardisation. Despite of the internationalisation of the MSP and despite the clear desire to join efforts within our sea basin, the speed of MSP progress, political commitment, results achieved so far and even content and ingredients of maritime spatial plans and activities vary among the BSR countries. Even the name of MSP is differently translated into English: sometimes it is marine spatial planning, sometimes, following the EU example, maritime spatial planning. This ambiguity in the nomenclature of the sea space planning processes is not of an accidental or a random character but manifests different expectations on MSP among BSR countries, for example, their different choices in balancing conservation and socio-economic objectives. There is even no clear agreement on the definition of MSP (Zaucha 2012a) as well as public support for the process. Studying German experience on MSP some scholars (Jay *et al.* 2012) discovered “the tensions involved in the attempt to adopt a spatial approach to marine governance” mainly due to asymmetric involvement of different groups of stakeholders. And those tensions will grow with MSP development and extending its influence over new stakeholders groups.

The fact is that value judgements, preferences and priorities guiding the maritime planning process and used for mitigation of spatial conflicts do vary among BSR countries. It seems that the charm of MSP, like of the concept of territorial cohesion, comes from its general character and possibility of different interpretations. Some countries might see MSP as a main vehicle for the achievement of good status of the marine environment in line with the MSFD, others – as an instrument of boosting its coastal economies. Some countries might regard MSP as an integrative cross-sectoral process, whereas others – as a vehicle for transposition of sectoral priorities to the sea. MSP systems will vary accordingly, for instance, in terms and scope of public participation, coverage of the sea by the plans, methods applied to delimitation of the smaller sea subareas etc. Besides, it seems that those differences should be respected and considered as a starting point in discussing the ways forward with the BSR MSP. We have to acknowledge that, also in the future, MSP will mirror those differences in values and ambitions of the BSR countries and regions. However, Chapter 4 shows that common Baltic denominator in MSP is still feasible.

The best way of depicting those differences can be by telling different storylines on MSP (drawing on Böhme 2011). Each story highlights different facets of the MSP aims and goals and background values as observed in the BSR. These stories are not mutually exclusive. There may be both contradictions and synergies between them.

5.2.1. Five storylines behind Baltic maritime spatial planning

1. Smart blue growth

Point of departure: MSP must contribute to economic growth in order to achieve the aims of Europe 2020 and boost European competitiveness.

This implies a strong focus on bio-tech, renewable energy production, extraction of minerals, mariculture, coastal tourism and in some cases also blue innovations, for instance, algae cultivation or marine engineering⁷⁶. These economic interests are at the forefront of management of the sea space and sea resources.

Coastal regions with firm industrial and research base and well developed logistic centres (economies of agglomeration) benefit the most, but also other regions that have managed to build a solid base for maritime industries enjoy stable growth and improvement of their labour markets. Those with specialisation on coastal tourism are an exception to this rule due to seasonality problems and seasonal ups and downs. MSP is used to reconcile conflicts between different sea uses (e.g. shipping and wind mills or tourism and extraction of minerals). Integration of land and sea planning is also a must to avoid conflicts. Benefits of MSP are enjoyed mainly by the coastal regions, although some other regions located far from the sea receive a smaller part of those benefits in terms of typical Keynesian multiplier (secondary and tertiary effects) and due to their specific endowments, notably, in, human capital and research profiles (this is important for, for instance, blue bio-tech since the transport cost play a minor role for this industry). In global terms the winners are richer, larger countries, regions or those conveniently located as logistics hubs, or possessing some specific fixed geographic endowments (sandy beaches, climate and others).

In this model, there is a risk that MSP can be business-driven, under the pressure of different sectoral interests, short and medium-term oriented, but with secure evidence-based financing due to constant inflow of money from the private sector to sea-related research. Incentives for cross-border or sea basin cooperation in MSP are low and come mainly from the public sector and national legal provisions, or from cross-border business projects (e.g. pipelines).

2. Intertemporal arbitration

Point of departure: MSP is about long-term development focusing on long-term phenomena such as climate change and needs of future generations.

This implies a strong focus on spatial efficiency and restricting irreversible or hardly reversible sea uses. The underlying assumption is that the needs of future generations are unknown; therefore, the current generation should not limit (by the current decisions) the scope of the future choices. A key principle is to avoid on-the-sea activities that can better take place on land. “The sea is not a repository for problematic land uses”. /.../ “All prospective sea uses have to make a good case for receiving sea space in the first place” (Gee *et al.* 2011:20). A number of non-go areas are being planned, and special “technical” principles are used to ensure efficient use of space (e.g. lying cables and pipelines together). Co-uses are promoted. The functions that are attached to the given space and cannot be easily moved and replicated elsewhere (e.g. specific habitats) receive priority over other uses and functions and are under special protection. Spatial efficiency is given priority to the cost efficiency (Gee *et al.* 2011:20).

Benefits in this storyline are of a long term character, whereas costs must be incurred in a short run in terms of foregone opportunities. The most affected are the coastal regions that potentially could receive income out of intensive sea exploitation and constructions on the sea. This concerns a lot of

⁷⁶ See as an example marine smart specialisation of a French region Pays de la Loire that launched IRT Jules Verne, an SMEs driven cluster of Neopolia and a pilot site for recycling wave energy – SEM-REV).

Sea space is understood as valuable good that must be used sparingly /.../ to keep back as much space as possible for the future uses.

Gee *et al.* 2011, 20

peripheral regions of low economic base and those with declining shipyards. At the national and EU level the entire image of maritime economy suffers, since declining industries (e.g. shipbuilding) are more slowly replaced or substituted by the offshore activities. Unaffected are regions dependent on environmentally friendly and mobile sea industries (not attached to the sea bed) such as shipping or bio-tech or sea mariculture for nutrient extraction. Some benefits are redirected also to the terrestrial areas hosting economic activities that otherwise would go to the sea. MSP slows down exodus of those activities from land. The entire pattern of benefits and losses is of a patchwork character and difficult to predict, while the general public might have severe problems with perceiving benefits from such a long-term oriented public intervention.

MSP is driven by certain strict rules agreed beforehand. It struggles with an extremely high level of uncertainty with regard to the needs and value systems of the future generation. It is mainly public sector driven and perceived by the business sector and even coastal municipalities in less affluent countries as a coercive and restrictive mechanism. The evidence base of MSP has severe gaps due to financial limitations, namely, possibility for researching needs of future generations only with support from public funds. On the other hand, the “scarcity of the sea space” for commercial uses prompts business sector to support more generously research with concrete commercial outcomes, for example, sea bed mapping. The sea basin cooperation in the MSP is a must. Free riding⁷⁷ by some countries might offer them excessive short-term economic benefits and can easily induce other countries to follow. This is the biggest risk for MSP – to become marginalised by economic reality.

3. Local development and development of coastal regions

Point of departure: MSP is about developing coastal municipalities and coastal regions, extending local labour markets.

The prevailing assumption is that every area has its own distinct set of priorities and development patterns. At the same time, every region and local area also has resources to make use of the adjacent sea potential for increasing the prosperity of their citizens. This implies a focus on different sea uses in line with potential and comparative advantages of the different areas (regions, municipalities etc.). In general (at the sea basin level) the uses directly related to well-being of the coastal societies, such as coastal tourism, ports, fishery or mariculture receive special consideration. In addition to that, if the regional interests prevail over the local ones, one can also expect development of some new maritime uses such as wind energy or bio-tech (as is the case with Schleswig Holstein or some Finnish regions). In many cases the intangible factors of tacit knowledge and local networks (including clusters) are considered to be of key importance for promotion of chosen sea uses. Less attention is paid to the development of the exclusive economic zone and potentials located there as being outside of the jurisdiction of local and regional authorities. In particular, underwater cultural heritage in the exclusive economic zone remains without sufficient protection.

Benefits from MSP in this storyline are reaped entirely by the coastal regions and municipalities with only a very small portion diffused to the other regions in line with the standard Keynesian multiplier mechanism. Among the coastal regions the biggest gain might come to pioneers, that is, regions with higher administrative capacity, better economic milieu, human and social capital. This stagnates the situation in weaker regions and municipalities, creating the so called path dependency. Besides, regions and municipalities might try to shift external costs (negative externalities) to the neighbouring regions/municipalities or to the national level. The stronger regions and municipalities are also more successful in that game.

A strong point of the MSP is its social dimension and balance between economic and social

⁷⁷ This means drawing benefits without incurring fair costs.

dimensions of development. The proper integration between maritime and terrestrial spatial planning is ensured as well as attention to the local potentials and specificities. The main risk is free riding and fragmentation of the maritime spatial plans. The creation of artificial planning borders hampers the planning process. Some difficulties might occur with regard to horizontal coordination of the plans among regions and municipalities that might lead to inconsistencies and lack of synergies. Priorities might vary among the coastal regions and municipalities, and the content of plans and their provisions accordingly. The implementation of national priorities might also require extra coordination efforts and mechanisms based on dialogue and consensus. Some legal instruments might be necessary as well. Research and collection of evidence are biased towards certain uses important in the given region or municipality. Evidences collected by different regions might be hardly compatible and insufficient to provide the proper picture of the entire sea space. Duplication of research efforts might also occur. International and cross-border cooperation depends on the capacity of regional and local authorities. Therefore, its intensity and quality varies and is of a patchwork character. Cooperation in MSP is initiated rather to solve problems than exploit new opportunities.

4. Environmental dimension and ecosystem approach⁷⁸

Point of departure: MSP is about ecosystem resilience, capacity of the ecosystem to account for changes and external shocks and directly related to planning of ecosystem services.

This implies a strong focus on the protection of marine environment, integrity of marine ecosystems and ecological connectivity, spatial efficiency and social and cultural dimension of the sea exploitation (e.g. preservation of typical marine landscapes both on and off shore). The key notion is ecosystem approach. The four central ecosystem principles guide human actions at the sea (Halpern *et al.* 2010):

- maintain native species diversity,
- maintain habitat diversity and heterogeneity,
- maintain populations of key species,
- maintain connectivity.

The Malawi Principles are observed by MSP⁷⁹. Boundaries of the planned sea areas respect principles of ecological integrity and are based on ecological criteria. The provisioning of ecosystem services is still enhanced, but mainly of those making the least harm to regulating and supporting ecosystem services. Such uses as on-shore recirculating aquaculture systems or bio-technologies are especially appreciated. Also innovative technologies (related to environmental protection) receive green light and support (e.g. mussels or algae farming for removal of nutrients). Some uses of mixed environmental impacts require top political decisions either at the EU or BSR or national level. Precautionary principle is at the forefront of the other HELCOM-VASAB MSP principles. MSP is perceived as important tool for the implementation of the MSFD. A close link to the Millennium Ecosystem Assessment⁸⁰ is ensured. MSP becomes more and more a tool than an independent decision-making process in the public choice domain.

The benefits in this model are of a global and supra-national character. They are consumed by societies in the entire BSR and after a while are taken for granted. Additional benefits go to the structurally weaker coastal regions (without a strong industrial base) by making them more attractive as tourist destinations and by offering extra jobs in maintenance of facilities related to

⁷⁸ For better understanding of this storyline please read Merrie *et al.* (2009), pp. 37-39.

⁷⁹ Malawi Principles for the Ecosystem Approach, i.e., twelve principles of the ecosystem approach to biodiversity management identified under the Convention on Biological Diversity (for details please see <http://www.cbd.int/ecosystem/principles.shtml>).

⁸⁰ The Millennium Ecosystem Assessment assessed the consequences of ecosystem change for human well-being. From 2001 to 2005, more than 1360 experts worldwide conducted a scientific appraisal of the condition and trends in the world's ecosystems and the services they provide.

Ecosystem approach with respect to the use of the sea is the comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of Marine ecosystems, thereby achieving sustainable use of goods and services and maintenance of ecosystem integrity.

Definition by HELCOM and OSPAR (drawing on Douvère 2006)

Maritime spatial planning is therefore a fundamental tool for the sustainable development of marine areas and coastal regions././

Blue Book (EC 2007,6)

the protection of marine environment. However, those benefits are of a long-term character and require considerable costs (losses) in the short run (at least structural shifts). Also regions with a strong research base specialising in the protection of marine environment enjoy extra development stimuli. In global terms, the winners are richer societies with a high level of satisfaction of basic needs paying more attention to environmental protection.

In this model, there is a risk that MSP can be usurped by the environmental sector and biased towards environmental goals. It is mainly public sector driven and perceived by business sector and even coastal municipalities in less affluent countries as a coercive and restrictive mechanism. However, if Malawi principles are observed MSP becomes a dialogue process with active participation of stakeholders paying attention to the subsidiarity principle. The evidence base of MSP might be limited unless ecological sector is able to finance expensive maritime research. Such research will focus on the complexity of interactions within marine ecosystems. Incentives for cross-border or sea basin cooperation are strong but mainly in the field of ecosystem issues and problems. An eco-regional approach has been given a concrete, ecologically coherent basis for trans-boundary cooperation in MSP (Merrie *et al.* 2009).

5. Conflict mitigation

Point of departure: MSP is about the need to prevent conflicts between sea uses and mitigate them.

The MSP pays attention to a more efficient use of synergies between different policies (vertical and horizontal coordination) and to the actual costs of non-coordination. Largely, the storylines focus on governance and cooperation – as a key aspect of MSP – rather than actual development of the sea areas and coastal regions and municipalities. Therefore, this storyline differs from the others as it is more procedure than output oriented. But the basic idea is that better vertical and horizontal coordination of policies will lead to a more balanced and efficient development of the sea space and its potential at the end. The White Paper on European Governance (EC 2001) identifies five principles of “good” governance: openness, participation, accountability, effectiveness and coherence. All of them are relevant for MSP as one can easily realise by studying, for instance, an MSP project, *BaltSeaPlan Vision 2030* (Gee *et al.* 2011: 18-24). To comply with them, further efforts have been made to adjust MSP procedures and routines accordingly. Key MSP motives are fostering transparency, willingness of stakeholders to participate and coherence of the planning as such. Equally crucial is awareness raising on MSP role and importance. Particular effort is devoted to cross-border participation (in order to ensure coherence of the planning process). Special tools serving this purpose such as a common legend of maritime maps, transboundary GIS as a communication tool and others have been developed. Impact assessment instruments have also been refined in order to improve coordination between policies.

Benefits from MSP in this storyline mainly emerge in terms of diminishing the costs of non-coordination. In a recent study, the Policy Research Corporation (PRC 2010b) confirmed that, if MSP is implemented appropriately, the following four effects are obtained: enhanced coordination and simplified decision processes; enhanced legal certainty for all stakeholders in the maritime arena; enhanced cross-border cooperation; enhanced coherence with other planning systems. These MSP effects translate into economic benefits such as the coordination of benefits for governments, lower costs for companies, and an improved investment climate. Depending on the development scenario, these benefits at the EU level were estimated to range from € 665 million to € 7 billion in 2020 and approximately 50 % more in 2030. Some 85 % of these benefits will result from preventing future conflicts, and 15 % because of the enhancement of the investment climate (due to wind farms and mariculture). Those benefits are reaped by more active and stronger regions and countries, although the path dependency seems weaker than in the storyline on “local development and development of coastal regions”.

A strong point of MSP in this storyline is its comprehensive character, objectivity, predictability and transparency. The implementation of MSP provisions and plans is also easier due to high ownership of the planning outcomes by the stakeholders involved in their preparation. The risk of wrong decisions is lower than in the other storylines due to more in-depth and intensive discussions. The evidence base of MSP in this model is non-problematic, since stakeholders are willing to reveal their knowledge and information they possess. International and cross-border cooperation thrives due to a proper focus on participation and development of instruments for cross-border dialogue. However, such cooperation, as encompassing larger number of stakeholders, requires more time and resources. The main weakness may lie in the static character of MSP driven mainly by the existing problems and interests. Thus MSP ensures arbitration between the existing uses and interests but can hardly initiate structural shifts and pays little attention to the needs of the future generation. Its contribution to the strengthening of adaptive capacity in the field of the sea space development is also limited. Moreover, there is a risk that MSP can be captured by the well-prepared and organised vested interests that can dominate discussions over the planning provisions. Still, such risks are also present in the other storylines. MSP is also dependent on the quality of the BSR, national and regional level documents, namely, to what extent they properly reveal the citizens’ preferences with regard to sea uses. Such documents should link policies with general objectives and preferences agreed in a democratic process. It is also important that the various documents developed at different governance levels and at the same level of governance reinforce (not contradict) each other. Without them, MSP would not be able to ensure proper arbitration between different uses.

5.2.2. Two strategic choices faced by the Baltic maritime spatial planning and four scenarios

A closer look at different storylines reveals new aspects of the search for balance between environmental protection and economic development highlighted in the MSP *BaltSeaPlan Vision 2030*. If we treat marine ecosystem as a natural capital we should both exploit it in order to satisfy human needs and ensure at least its functionality and sufficient amount in the future (Zaucha 2012c; ESA 2011). A properly conducted MSP must try to fulfil those objectives in line with the sustainable development paradigm. If the trade-offs exist in this respect they are rather related to the planning horizon, that is, short or long-term orientation of MSP resulting in a different mix of socio-economic and conservation objectives. This is well captured by the HELCOM-VASAB MSP principles presented in Chapter 2 of this book and seems to be properly addressed and taken care in the BSR maritime spatial plans.

Nevertheless, the storylines reveal even more acute strategic choices than those faced by MSP in the BSR. Those choices are of political or even sociological nature and condition the entire success of the concept of coherent transboundary MSP in the BSR. They have not been extensively covered under minimum requirements and only to some extent under the HELCOM-VASAB MSP principles. The first choice is between active and passive MSP (MSP as a process or as a tool). The other one is related to the degree of the trust, that is, trade-off between Baltic and national (regional/local) benefits from MSP. The answers to those two principal questions will determine the way forward of transboundary MSP in the BSR regardless of the EU directives and the EU or HELCOM-VASAB MSP principles, since those choices will determine practical ways of their implementation in the BSR.

The first strategic choice between active and passive MSP might look, at a first glance, as an artificial one. All textbooks on MSP (e.g. Ehler and Douvere 2009) support a strong conviction that MSP is a process not a tool. But in reality there are a lot of examples of spatial planning being used only as a vehicle to impose priorities and objectives of the chosen policies over the use of space. So MSP worked as a mere transmission mechanism even though public participation was formally ensured. This shows that the choice between passive and active MSP is simultaneously of a political and sociological nature. Thus an active MSP can be ensured not only by suitable legislation but also

Competition for maritime space – for renewable energy equipment, aquaculture and other growth areas – has highlighted the need for efficient management, to avoid potential conflict and create synergies between different activities.

EC
[retrieved on 1st of July
2013 from http://ec.europa.eu/maritimeaffairs/policy/maritime_spatial_planning/index_en.htm]

by an adequate planning culture even where legislative base is insufficient. And vice versa, proper legislation is not a sufficient condition for an active MSP if the planning culture lags behind.

An active MSP means that the planning process is used for revealing and aggregating preferences of different stakeholders with regard to the use of the sea space (Zaucha 2007). The whole process is under the supervision of neutral competent institutions endowed with sufficient resources as well as possessing knowledge on the development context and impacts of different policies or development patterns. MSP is considered as an important part of the public choice mechanism in a country or region. Relevant stakeholders are involved, and a local, regional or national government arbitrate their interests while, at the same time, safeguarding the interests of future generations. All stakeholders are on an equal footing. Stakeholders are involved not only in the preparation of plans but also in their evaluation and monitoring their effects. Therefore, an important part of the active MSP is capacity building among stakeholders and fostering of the “active” planning culture. The passivity of stakeholders or rent-seeking behaviour⁸¹ (local self-interest) is treated as an important barrier for the final success of MSP and addressed with adequate measures. The weak point of the model is that it is time and resource intensive.

A passive MSP means that all important decisions are taken outside the planning domain. The role of MSP is either to convince those affected by those decisions that the proposed priorities are the right ones or just to ensure the compliance of stakeholders’ actions with those priorities. A key feature of this model is a non-participatory planning culture, a formal stakeholder dialogue, the focus on plans not on planning and the existence of many shortcuts and informal rules in the sea space planning and management. Not always but very often the passive model of MSP is characterised by domination of some sectors or interests at the expense of others. The final result is the decreasing role of MSP and its instrumental treatment. The MSP process comes to be perceived as a grotesque and unnecessary performance without a real meaning and value. However, the model is relatively cheap, simple and reliable. It offers fast results in terms of plan preparation and if supported by strong legal provisions can easily enforce spatial order and the mitigation and prevention of spatial conflicts. Moreover, it is relatively flexible, what makes changes in the planning provisions much easier.

The second strategic choice deals with trust. A high level of trust means that MSP can be genuinely performed at the Baltic Sea level. It appears that BSR nations can easily agree on the most beneficial, from the BSR point of view, locations of various sea activities. Their benefits are shared in a fair way. Thus not a single country is afraid to have a conservation or non-go profile for the use of the sea space under its jurisdiction. All the synergies are properly exploited, and the chance for free riding is almost negligible. Important targets on the use of the sea space have been agreed at the BSR level and are respected. The jointly agreed rules are observed. Information, knowledge and evidence are shared. Cross-border cooperation plays an important role and the analysis preceding plan preparation extend beyond national borders. As a rule, such analysis is conducted as a joint effort of the affected countries. Transnational impact assessment tools are frequently used. This model minimises the risk of unnecessary duplication, offers economies of scale and agglomeration and makes inter-temporal arbitration much easier. It is in line with the place-based approach to development as proposed by Barca (2009). Its main weakness is in a redistributive mechanism (fair distribution of benefits) that can lower incentives of some regions and municipalities to contribute to the development of the sea space on an equal footing with the others. Therefore, trust should be reinforced by adequate contractual mechanisms. This complicates the whole system.

Lack of trust implies a MSP that is locally, nationally or regionally oriented. Interests of the given country (region, municipality) prevail over the Baltic ones. The risk of free riding is high, and the problems requiring cooperation of all the countries (e.g. the Baltic Grid) are addressed inadequately.

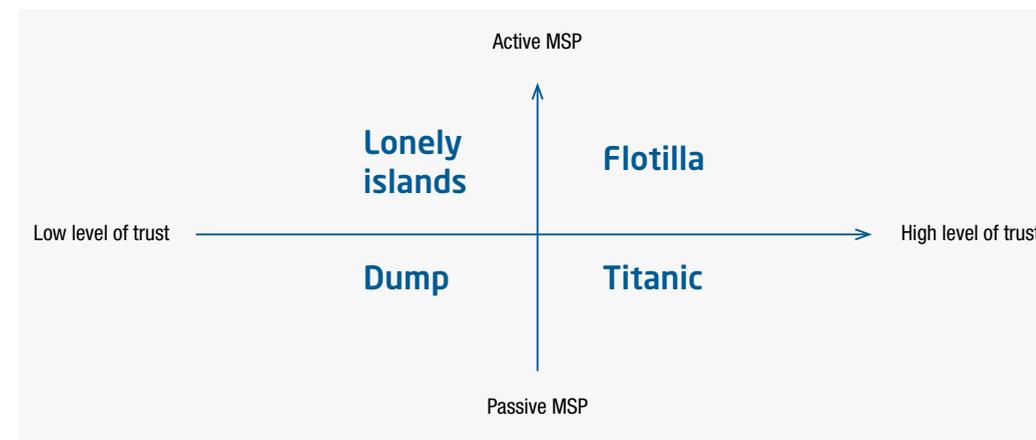
⁸¹ It means using resources (time, financial resources etc.) for increasing one’s share of the existing wealth (by lobbying or by creating a monopoly), instead of trying to create wealth through use of these resources.

Waters under the jurisdiction of different authorities are planned as separate units. Cross-border cooperation is either not intensive or based on the most acute common problems or joint interests. Different alliances are formed at the sub-Baltic level. Competition prevails over cooperation. Cost efficiency is given priority over spatial efficiency. At the same time, many infrastructure investments are duplicated in order to ensure their critical mass at the country or regional level, and not at the Baltic level. Neither is the integrity of the Baltic ecosystem given sufficient attention in such a MSP model. It might be ensured only exogenously by the targets of MSFD and compliance with the SEA Directive. The strong side of the model is a more direct link between the prosperity of local or regional societies and the MSP outcomes and, therefore, a more active public support for MSP.

Putting together the two above-discussed strategic choices might lead to the identification of four scenarios that could be interpreted as possible ways of the future MSP development in the BSR. These four scenarios have been further elaborated and presented below (Fig.15).

Figure 15. Scenarios

Source: Own elaboration by Jacek Zaucha.



Flotilla (active MSP and high level of trust)

MSP dynamics and key results	Under this scenario, MSP develops harmoniously in the BSR as a bottom-up and top-down process. Baltic space is used in an optimum way in line with the preferences of the BSR societies.
Cross-border (transboundary) cooperation	National and regional structures are well-prepared and eager to cooperate over the borders of their jurisdictions. Baltic initiatives such as the Baltic Grid, intelligent corridors, joint Baltic MSP training have been completed or carried through. All transnational topics identified in the MSP <i>BaltSeaPlan Vision 2030</i> (Gee <i>et al.</i> 2011) are appropriately addressed.
Territorial coverage of MSP	The entire territory of the Baltic Sea is covered by maritime spatial plans of strategic nature that are coordinated among each other. The most important parts of the Baltic Sea from a socio-economic or environmental point of view are covered by local plans or management schemes.
Implementation of the HELCOM-VASAB MSP principles	HELCOM-VASAB MSP principles are implemented in line with their spirit. Sustainable development is a leading planning paradigm. Ecosystem integrity and resilience is secured. Pan-Baltic and long-term thinking prevails.
Ability to self-correct mistakes	Correction mechanisms preventing serious mistakes in MSP are secured due to active stakeholder participation.

Main problems	The planning process is long and exhausting. Consensus (trust) building and pan-Baltic consultations require time and additional resources.
Status of MSP in the BSR	Since MSP is future-oriented and respects the needs of future generations, its direct link to the prosperity of coastal communities will weaken with time. But in general, the status of the Baltic MSP as an important process for securing long-term sustainable development at different geographical scale is high.
Way forward	The current direction of the MSP development should be secured. The existing institutional set-up should be maintained. The monitoring of possible obstacles that can jeopardise the current level of trust and an active planning culture should be undertaken by the joint HELCOM-VASAB Working Group on MSP.

Titanic (passive MSP and high level of trust)

MSP dynamics and key results	Under this scenario MSP develops more at the BSR level than national or regional level. The maritime spatial plans are of different nature and are hardly compatible despite the existence of the BSR guidelines, principles and visions. An important role is played by pan-Baltic organisations but their suggestions and recommendations sometimes remain unimplemented due to the lack of sufficient capacity at the local and regional level. Baltic Sea space is hardly used in an optimum way, although a pattern of close to optimal use sometimes can be achieved in smaller sea areas with less complex problems and challenges.
Cross-border (transboundary) cooperation	National and regional structures are eager to cooperate over the borders of their jurisdictions but the planning culture interferes with that. If the Baltic initiatives, such as the Baltic Grid or intelligent sea corridors, are carried through, this will happen outside the MSP domain and, therefore, will be accompanied by numerous spatial conflicts. The transnational topics identified in the MSP <i>BaltSeaPlan Vision 2030</i> (Gee <i>et al.</i> 2011) are duly recognised but hardly addressed in a professional way.
Territorial coverage of MSP	The Baltic Sea territory is partly covered by some maritime spatial plans that have severe drawbacks and might be biased towards some vested interests. Various strategies, spatial programmes and studies as well as pilot plans do exist at the BSR level.
Implementation of the HELCOM-VASAB MSP principles	HELCOM-VASAB MSP principles are also recognised and appreciated but only partially implemented. All this is at the expense of the ecosystem integrity and resilience as well as pan-Baltic and long term thinking.
Ability to self-correct mistakes	The Baltic MSP is extremely vulnerable to the mistakes made at the Baltic level, in particular, by large pan-Baltic actors due to lack of correction mechanisms in terms of active stakeholder participation.
Main problems	MSP is inertia-driven, with an insufficient level of monitoring and evaluation, unable to respond to wild cards and new types of challenges and opportunities. Strategic shifts in the Baltic MSP are extremely difficult. The planning process requires even more time that under the previous scenario due to capacity constraints. The entire outcome in terms of development of the sea space is hectic.
Status of MSP in the BSR	The role of the Baltic MSP is of medium importance but the MSP as a vehicle for BSR integration still receives emotional support from decision-makers and the general public. Success of the Baltic MSP is measured mainly in terms of a political declaration than a real transformation of the Baltic Sea space.
Way forward	This scenario would require at least a strong external correction mechanism for preventing errors (that might result in a fiasco/failure and disrepute of the MSP idea as such) and channelling resources into joint BSR undertakings (less affected by the costs of unprofessional coordination). In the long run, the work on the creation of an active planning culture in the BSR countries should be undertaken by the joint HELCOM-VASAB Working Group on MSP. Awareness rising should be a starting point for a remedial action.

Lonely islands (active MSP and low level of trust)

MSP dynamics and key results	Under this scenario MSP develops successfully at the national and regional/local level. This is mainly a bottom-up process with a limited impact of the BSR level. Accordingly, the optimisation of the use of the sea space takes place at the national or regional level.
Cross-border (transboundary) cooperation	National and regional structures are well-prepared to enhance MSP but hardly willing to take into consideration what is going on outside the boundaries of their jurisdictions. They cooperate with neighbours only if they can clearly perceive immediate benefits from that. If the Baltic initiatives such as the Baltic Grid or intelligent sea corridors, are carried through this will happen due to their immediate benefits for the countries or regions. The transnational topics identified in the MSP <i>BaltSeaPlan Vision 2030</i> (Gee <i>et al.</i> 2011) are also addressed to the extent that is beneficial at the national or regional level.
Territorial coverage of MSP	The most important (from socio-economic or environmental point of view) parts of the Baltic Sea are covered with maritime spatial plans that are coordinated among each other to the minimum necessary extent.
Implementation of the HELCOM-VASAB MSP principles	HELCOM-VASAB MSP principles are only partially implemented; some others remain neglected, in particular, those dealing with collaboration. The final outcome depends on the qualities and goodwill of local and regional stakeholders. If national planners and decision-makers act shrewdly/astutely the ecosystem integrity and resilience might not be jeopardised.
Ability to self-correct mistakes	Correction mechanisms preventing serious mistakes in MSP are secured only at the national or regional level (low intensity of cross-border consultation). This might intensify cross-border spatial conflicts. However, exogenous mechanisms/regulations such as SEA might reduce the risk of such conflicts.
Main problems	The MSP process is usually cost efficient and effective and requires less time than in the other scenarios due to lack of cross-border coordination/consensus building procedures. Serious problems are prevented by the SEA and EIA obligations, but the benefits from the international cooperation remain outside the MSP domain. Costs of non-coordination (e.g. duplication of linear infrastructure etc.) are high and increase with the intensification of the use of the sea space.
Status of MSP in the BSR	Since MSP is directly linked to the prosperity of coastal communities, its status is nevertheless high. Despite its inability to address some key pan-Baltic challenges, MSP is supported by national and regional decision-makers and politicians and the general public.
Way forward	This scenario would require a strong external mechanism for measuring and communicating to national and regional/local actors the benefits from cross-border cooperation in the field of MSP. The same mechanism can be used for initiating some key pan-Baltic projects. This might be the role for the pan-Baltic organisations or the European Commission. Key measures can be as follows: studies and analysis like those by the PRC (2010a), the creation of pan-Baltic fora for debate and communication of the findings of those studies and, finally, wise use of the open method of coordination.

Dump (passive MSP and low level of trust)

MSP dynamics and key results	Under this scenario, MSP develops only as a formal procedure at the national and regional/local level with a limited ability to become a core for the management of the sea space. This is mainly a top-down process, but with no impact from the BSR level. There is no room for discussing the optimal use of the sea space, pan-Baltic and long-term thinking, and other matters.
Cross-border (transboundary) cooperation	Cross border cooperation in the sea is sector driven as well as including all pan-Baltic initiatives. The transnational topics identified in the MSP <i>BaltSeaPlan Vision 2030</i> (Gee <i>et al.</i> 2011) have not been properly addressed.

Territorial coverage of MSP	The Baltic Sea territory is partly covered with some maritime spatial plans of questionable quality. The plans prevent only some spatial conflicts by giving preferences to the chosen sectors or interests. The location of the plans is of a subjective character, powered by sectoral decisions and lobbies.
Implementation of the HELCOM-VASAB MSP principles	The HELCOM-VASAB MSP principles are hardly being put in practice. They remain verbal declarations only. The joint HELCOM-VASAB working group on MSP becomes a closed group of MSP enthusiasts without practical influence.
Ability to self-correct the mistakes	Correction mechanisms preventing serious mistakes in MSP are non-existent except for SEA and EIA procedures foreseen by EU legislation.
Main problems	The MSP process is usually cost effective and requires less time and less resources than in the other scenarios due to lack of, or very weak cross-border coordination and lack of consensus-building procedures. But the plans are unable to secure long term benefits from the use of the sea space. MSP becomes a formal process of a bureaucratic character.
Status of MSP in the BSR	MSP might be still supported by national and regional decision makers and politicians despite its inability to solve some key pan-Baltic problems and challenges. The reason for this is that the MSP provides the authorities with a nice excuse for their failures and opportunity of offering extra favours to partisans ⁸² and supportive groups of stakeholders. Since MSP is hardly linked to the prosperity of coastal communities, its status is low. It cannot count on support from the general public. With time it will either disappear replaced by sectoral mechanism for planning and management of the sea space or remain at the fringe of developmental policies.
Way forward	Before starting MSP implementation and plan preparation joint efforts should be focused on the building of the trust among the BSR stakeholders and active planning culture in the BSR countries.

82 Those who wholly support policy of a given party or organization.

References

- AL-HAMDANI Z. and REKER J. (eds.) (2007) *Towards marine landscapes in the Baltic Sea*. Balance interim report No.10, retrieved on 10th of March 2010 from <http://balance-eu.org/>
- ANONYMOUS (2012) Наш общий Финский залив. Сборник материалов I научной конференции СПбГУ, посвящённой "Году Финского залива – 2014". Санкт-Петербург: BBM. [Proceedings package of the 1st Saint Petersburg State University Scientific Conference *Our Common Gulf of Finland*, dedicated to the "Year of the Gulf of Finland – 2014", Saint Petersburg: WWM Publishing House]
- BARCA F. (2009) *An agenda for a reformed Cohesion Policy. A place-based approach to meeting European Union challenges and expectations Independent Report prepared at the request of Danuta Hübner, Commissioner for Regional Policy*
- BLÆSBJERG M., PAWLAK J.F., SØRENSEN T.K. and VESTERGAARD O. (2009) *Marine Spatial Planning in the Nordic region – Principles, Perspectives and Opportunities*. Copenhagen: Nordic Council of Ministers
- BLAŽAUSKAS N. (2011) *Towards a Pilot Maritime Spatial Plan for the Lithuanian Sea. "BaltSeaPlan Report no. 15"*, Klaipėda: Klaipėda University Coastal, Research and Planning Institute, Lithuania, retrieved on 5th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1#LT>
- BOYD J. and BANZHAF S. (2007) *What are ecosystem services? The need for standardized environmental accounting units. "Ecological Economics"* 63, pp. 616-626
- BOYD J. and KRUPNICK A. (2009) *The Definition and Choice of Environmental Commodities for Nonmarket Valuation*. RFF DP 09-35. Washington, DC: Resources for the Future
- BÖHME K. (2011) *Internal Summary of the Workshop on Territorial Cohesion Indicators organised by the ESPON INTERCO project 14.01.2011*. ESPON INTERCO, Spatial Foresight GmbH, unpublished paper
- CIEŚLAK A., (2009) *Maritime Spatial planning in the Baltic Sea, "Informationen zur Raumentwicklung"* 8/9.2009, pp. 607-612
- CIEŚLAK A., JAKUBOWSKA P., ŚCIBIOR K., STASKIEWICZ A., and ZAUCHA J. (Eds.) (2009) *Compendium on Maritime Spatial Planning Systems in the Baltic Sea Region Countries*, Gdańsk: Maritime Institute
- DAY J.C. (2002) *Zoning-lessons from the Great Barrier Reef Marine Park, "Ocean & coastal management"* 45(2-3), pp.139-156
- DAMSGAARD O., DOUCET P., DRAHOS Z., GERE L., ILLÉS I., JETMAR M., KOMORNICKI T., LOPEZ I., PÉTI M., PROKAI R., RADVÁNSZKI Á., RICZ J., SALAMIN G., SCHMIDT-SEWERT V., SCHÖN P., SOMFAI Á., SÜTÖ A., TOMAY K., VANAUTGAERDEN L., ZAUCHA J. (2011) *The Territorial State and Perspectives of the European Union. Background document for the Territorial Agenda of the European Union 2020*. Budapest: Hungarian Ministry of National Development and VÁTI Nonprofit Ltd
- DOUVERE F. (2008) *The importance of marine spatial planning in advancing ecosystem-based sea use management. "Marine Policy"* 32(5), pp. 762-771
- DOUVERE F. and EHLER C.N. (2008) *Special Issue on Ecosystem-based, Marine Spatial Management. "Marine Policy"* 32
- DOUVERE F. and EHLER C.N. (2009) *New perspectives on sea use management: Initial findings from European experience with marine spatial planning. "Journal of Environmental Management"* 90(1), pp. 77-88
- DÜHR S., COLOMB C. and NADIN F. (2010) *European Spatial Planning and Territorial Cooperation*. London, New York: Routledge
- DÜHR S., STEAD D. and ZONNEVELD W. (2007) *The Europeization of Spatial Planning through Territorial Cooperation, "Planning Practice and Research"* 22(3), pp. 291-307
- EC (1991) *Europe 2000: Outlook for the Development of the Community's Territory*. European Commission, Brussels - Luxembourg: Office for the Official Publications of the European Communities
- EC (1994) *Europe 2000+ Cooperation for European territorial development*. Brussels - Luxembourg: European Commission Office for the Official Publications of the European Communities
- EC (2001) *EUROPEAN GOVERNANCE. A WHITE PAPER*. Brussels: European Commission, COM (2001) 428 final
- EC (2006) *Green Paper Towards a future Maritime Policy for the Union: A European vision for the oceans and seas*. Brussels: European Commission, COM (2006), 275 final, Volume II
- EC (2007) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region. An Integrated Maritime Policy for the European Union*. Brussels: European Commission,

COM (2007), 575 final

EC (2007a) *Accompanying document to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. An Integrated Maritime Policy for the European Union*. Brussels: European Commission, SEC(2007) 1278

EC (2008) *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU*. Brussels: European Commission, COM (2008) 791

EC (2009) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the European Union Strategy for the Baltic Sea region*. Brussels: European Commission, COM (2009) 248/3

EC (2009a) *Commission staff working document accompanying the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the European Union Strategy for the Baltic Sea region*. Brussels: European Commission, SEC(2009) 71

EC (2010) *Maritime Spatial Planning for the EU's seas and oceans: what's it all about?* Luxembourg: Publications Office of the European Union

EC (2011) *Maritime spatial planning in the EU – achievements and future development*. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. (COM (2010) 771 of 17.12.2010). Luxembourg: Publications Office of the European Union

EC (2012a) *GREEN PAPER Marine Knowledge 2020 from seabed mapping to ocean forecasting*. Brussels: European Commission, 29.8.2012 COM (2012), 473 final, retrieved on 25th of September 2012 from http://ec.europa.eu/maritimeaffairs/policy/marine_knowledge_2020/documents/com_2012_473_en.pdf

EC (2012b) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Blue Growth opportunities for marine and maritime sustainable growth*. Brussels: European Commission 13.9.2012, COM (2012), 494 final

EC (2013) *Proposal for a Directive of the European Parliament and of the Council establishing a framework for maritime spatial planning and integrated coastal management*. Brussels: European Commission, 12.3.2013 COM (2013), 133 final

EHLER C. N. (2010) *Does marine spatial planning have to be ecosystem-based?* "Marine Ecosystems and Management" 3(4), p. 2

EHLER C.N. and DOUVERE F. (2007) *Visions for a Sea Change. Technical Report of the International Workshop on Marine Spatial Planning, "ICAM Dossier Series 3"*. IOC Manual & Guides No. 46. Paris: Intergovernmental Oceanographic Commission. UNESCO

EHLER C.N. and DOUVERE F. (2007a) *A summary of the International Workshop on Marine Spatial Planning, 8-10 November 2006. "Marine Policy"* 31, pp. 582-583

EHLER C. and DOUVERE F. (2009) *Maritime Spatial Planning. A Step-by-Step Approach. Toward Ecosystem based Management.*, "ICAM Dossier No. 6". IOC Manual & Guides No. 153. Paris: Intergovernmental Oceanographic Commission. UNESCO

EHLER C.N. and F. DOUVERE F. (2010) *An International perspective on marine spatial planning initiatives.* "Environments" 37(3), pp. 9-20

EHLER C.N. and DOUVERE F. (2010a) *The importance of monitoring and evaluation in adaptive maritime spatial planning.* "Journal of Coastal Conservation: Planning and Management" Special issue on Maritime Spatial Planning, 15(2), pp. 305-311

ESA (2011) *Summary of the report on measuring sustainable development*. United Nations, Economic and Social Council, Economic Commission for Europe, retrieved on 29th of November 2011 from <http://unstats.un.org/unsd/envaccounting/ceea/meetings/UNCCEA-6-14.pdf>

ESDP (1999) *European Spatial Development Perspective: Towards Balanced and Sustainable Development of the Territory of the European Union*. Office for the Official Publications of the European Communities, Luxembourg

FETISSOV M., APS R. and KOPTI M. (2011) *BaltSeaPlan Web - advanced tool in support of Maritime Spatial Planning.* "BaltSeaPlan Report no. 28", on 9th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

FISHER B. and TURNER R.K. (2008). *Ecosystem services: classification for valuation.* "Biological conservation" 141(5), pp. 1167-1176

FISHER B., TURNER R.K. and MORLING, P. (2009). *Defining and classifying ecosystem services for decision making.* "Ecological Economics" 68(3), pp. 643-653

GARPE K. (2008) *Ecosystem services provided by the Baltic Sea and Skagerrak*. Stockholm: Swedish Environmental Protection Agency

GEE K., KANNEN, A. and HEINRICHS, B. (2011) *BaltSeaPlan Vision 2030: Towards the Sustainable Planning of Baltic Sea Space*. Hamburg: BaltSeaPlan

GREAT BARRIER REEF MARINE PARK AUTHORITY (2004) *Great Barrier Reef Marine Park zoning plan 2003*. Townsville QLD

GÖKE C. and LAMP J. (2011) *Case Study: Systematic site selection for offshore wind power with Marxan in the pilot area Pomeranian Bight.* "BaltSeaPlan Report no. 29", retrieved on 7th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

HALPERN B. S., LESTER S. E. and MCLEOD K. L. (2010). *Marine Reserves Special Feature: Placing marine protected areas onto the ecosystem-based management seascape.* **Proceedings of the National Academy of Sciences of the United States of America**, 1-6. doi: 10.1073/pnas.0908503107

HEINRICHS B., SCHULTZ-ZEHDEN A. and TOBEN S. (2005) *The Interreg III B BaltCoast Project. A pilot initiative on Integrated Coastal Zone Management in the Baltic Sea (2002-2005), "Coastline Reports"* 5/2005

HEINRICHS B. and GEE K. (2012) *Necessary common minimum requirements for Maritime Spatial Planning (MSP) in the Baltic Sea. Plan Bothnia project*

HELCOM (2010) *Ecosystem Health of the Baltic Sea 2003-2007: HELCOM Initial Holistic Assessment.* "Baltic Sea Environment Proceedings. No. 122" Helsinki: Helsinki Commission

HELCOM (2012) *Planning the Bothnian Sea*. Helsinki: Helsinki Commission

JAY S., KLENKE T., AHLHORN F. and RITCHIE H. (2012) *Early European Experience in Marine Spatial Planning: Planning the German Exclusive Economic Zone.* "European Planning Studies" 20(12), pp. 2013-2031, retrieved on 15th of October 2012 from <http://www.tandfonline.com/doi/full/10.1080/09654313.2012.722915#preview>

KÄPPELER B., TOBEN S., CHMURA G., WALKOWICZ S., NOLTE N., SCHMIDT P., LAMP J., GEE K., GÖKE C. and MOHN C. (2011) *Developing a Pilot Maritime Spatial Plan for the Pomeranian Bight and Arkona Basin.* "BaltSeaPlan Report no. 9" retrieved on 4th of November 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

KRUK-DOWGIAŁO L., OPIOŁA R. and MICHAŁEK-POGORZELSKA M. (Eds.) (2011) *Prognoza oddziaływania na środowisko Pilotażowego projektu planu zagospodarowania przestrzennego zachodniej części Zatoki Gdańskiej*. Wydawnictwa Wewnętrzne Instytutu Morskiego w Gdańsku Nr. 6603, Gdańsk: Instytut Morski w Gdańsku, [In Polish]

LAMP J. (2011) *Values and guiding elements for MSP from an environmental point of view – contributing to the ecosystem based management approach*. WWF Germany, (unpublished paper)

LAWRENCE D., KENCHINGTON R. and WOODLEY S. (Eds.) (2002) *The Great Barrier Reef: Finding the Right Balance*. Melbourne: Melbourne University Press,

MARTIN G., APS R., KOPTI M., KOTTA J., REMMELGAS L. and KURIS M. (2011a) *Towards a Pilot Maritime Spatial Plan for the Pärnu Bay.* "BaltSeaPlan Report no. 13" retrieved on 2nd of November 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

MARTIN G., APS R., KOPTI M., KOTTA J., REMMELGAS L. and KURIS M. (2011b) *Towards a Pilot Maritime Spatial Plan for the Saaremaa and Hiiumaa Islands.* "BaltSeaPlan Report no. 14" retrieved on 1st of February 2013 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

MEA (2005) *Ecosystems and Human Well-being: Synthesis*. Millennium Ecosystem Assessment Washington, DC: Island Press

MERRIE A., ÖSTERBLOM H. and OLSSON P. (2009) *Managing the Marine Mosaic: A Briefing on Marine Spatial Planning with an Ecosystem Approach*. Stockholm: Stockholm Resilience Centre, Stockholm University, retrieved on 1st of October 2012 from http://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=OCBsQFjAA&url=http%3A%2F%2Fiaiaconnect.iaia.org%2Fresources%2Fview%2Fdownload%2Ffid%2F16885%2Ffid%2F1&ei=W70CU07vKlBkRsgaPwoDoDg&usq=AFQjCNFDfz2V2F7RbHDFEHoSzLpuFnI-VQ&sig2=_l_saxpQEdUMozabfoAMyiw

MMO (2012) *Evidence and Issues Report 2012 for the East Inshore and East Offshore marine plan areas*. Marine Management Organisation of UK, retrieved on 1st of February 2012 from <http://www.marinemangement.org.uk/marineplanning/issues.htm>

MOHN Ch., KOTTA J., DAHL K., GÖKE C., BLAŽAUSKAS N., RUSKULE A., APS R., FETISSOV M., JANSSEN F., LINDBLAD C., PIOTROWSKI M. and WAN Z. (2011) *Modelling for Maritime Spatial Planning: Tools, concepts, applications.* "BaltSeaPlan Report no. 19" retrieved on 6th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

MRAG (2009) *Legal aspects of maritime spatial planning. Summary report, Study done on behalf of the European Commission*. Marine Resources Assessment Group. Luxembourg: Office for Official Publications of the European Communities

NOLTE N., MICHAŁEK M., ZAUCHA J., PRZEDRZYMIŃSKA J., KRUK-DOWGIAŁO L. and OPIOŁA R. (2011) *Strategic Environmental Assessment in MSP. Recommendations from the German and Polish experience.* "BaltSeaPlan Report no. 25". Retrieved on 25th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>

ODPM – Office of the Deputy Prime Minister (UK) (2005) *A Practical Guide to the Strategic Environmental Assessment Directive*.

- Retrieved on 12th of February 2012 from <http://www.communities.gov.uk/publications/planningandbuilding/practicalguides>
- OLSEN E., GJØSÆTER H., FOSSUM P., DOMMASNES A., RØTTINGEN I., SANDBERG P. (2007) *The Norwegian ecosystem-based management plan for the Barents Sea: a case study*. "ICES Journal of Marine Science" 64(4), pp. 599-602
- PALDANIUS J. (2013) *Meriläueiden suunnittelu Suomessa (Maritime Spatial Planning in Finland)*. Ympäristöministeriön raportteja 29/2013 (Reports of the Ministry of the Environment 29/2013), Ministry of the Environment, Department of the Built Environment, Helsinki, 122 p. Retrieved on 18th of November 2013 from <https://helda.helsinki.fi/handle/10138/40891> [in Finnish]
- PLINKA L.N. (Ed.) (2009) *Основные концепции современного берегопользования (том 1,2)*. ПИТМУ, St. Petersburg, [in Russian]
- PENTZ T. A. (2011) *Stakeholder Involvement in MSP "BaltSeaPlan Report no. 24"* Germany: WWF Baltic Sea Office, retrieved on 15th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>
- PRC (2010a) *Study on the Economic Effects of Maritime Spatial Planning. Final report. Study carried out on behalf of the European Commission by the Policy Research Corporation*. Brussels, retrieved on 28th of March 2011 from http://ec.europa.eu/maritimeaffairs/study_msp_en.html
- PRC (2010b) *The Economic Benefits of Maritime Spatial Planning, Country reports. Study carried out on behalf of the European Commission by the Policy Research Corporation*. Brussels, retrieved on 28th of March 2011 from http://ec.europa.eu/maritimeaffairs/study_msp_en.html
- RF (2010) *Стратегия развития морской деятельности Российской Федерации до 2030 года (Утверждена 8 декабря 2010 г.)* [Russian Federation Maritime Activity Development Strategy up to 2030 (approved 08/12/2010)] retrieved on 7th of August 2013 from http://www.google.pl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0CGYQFjAH&url=http%3A%2F%2Ftranstec.transfec-neva.ru%2Ffiles%2Ffile%2FDoc%2FstrategyTT.doc&ei=3YkPUsrJlPetAb8yoG4Bw&usq=AFQjCNHFK_cpOCzvgFdoXDSOu0heADISA&sig2=tGiNV08Urc5h0A_CZkaWw&bvm=bv.50768961,d.Yms [in Russian]
- RUSKULE A. and VEIDEMANE K. (2011) *Developing a Pilot Maritime Spatial Plan for the Western Coast of Latvia*. "BaltSeaPlan Report no. 16" retrieved on 5th of September 2012 from <http://www.baltseaplan.eu/index.php/Pilot-Maritime-Spatial-Plans;831/1>
- SCHULTZ-ZEHDEN A., GEE K. and ŚCIBIOR K. (2008) *Handbook on Integrated Maritime Spatial Planning*. Berlin: S.Pro
- SCHULTZ-ZEHDEN A., GEE K. (2013) *BaltSeaPlan Findings – Experiences and Lessons*. Berlin: S. Pro
- SÖDERQVIST T. and HASSELSTRÖM L. (2008) *The economic value of ecosystem services provided by the Baltic Sea and Skagerrak*. Existing information and gaps of knowledge. Stockholm: Swedish Environmental Protection Agency
- TA (2007) *The Territorial Agenda of the EU, Towards a More Competitive Europe of Diverse Regions*, agreed on the occasion of the Informal Ministerial Meeting on Urban Development and Territorial Cohesion in Leipzig on 24/25 May 2007
- TA (2011) *Territorial Agenda of the European Union 2020 – Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions – Agreed at the Informal Ministerial Meeting of Ministers Responsible for Spatial Planning and Territorial Development on 19th May, Hungary: Gödöllő*. Retrieved on 7th of August 2012 from <http://www.eu-territorial-agenda.eu/Reference%20Documents/Final%20TA2020.pdf>
- TSP (2007) *The Territorial State and Perspectives of the European Union Document, Towards a Stronger European Territorial Cohesion in the Light of the Lisbon and Gothenburg Ambitions, A background document for The Territorial Agenda of the EU*. Leipzig 2007
- TURNER II B. L. (2010) *Vulnerability and resilience: Coalescing or paralleling approaches for sustainability science? "Global Environmental Change – Human and Policy Dimensions"* 20(4), pp. 570-576
- USANOV B.P. (2003) *Ногою твердой стать при море*. St. Petersburg: Gumanistika (Гуманистика), [in Russian]
- VASAB (1994) *Towards a Framework for Spatial Development in the Baltic Sea Region*. Denmark: Vision and Strategies around the Baltic Sea 2010
- VASAB (2001) *Wismar Declaration and VASAB 2010+ Spatial Development Action Programme*. Wismar: Vision and Strategies around the Baltic Sea 2010
- VASAB (2005) *Gdańsk Declaration and Policy Document Connecting Potentials*, 6th Conference of Minister for Spatial Planning and Development, Gdańsk: Vision and Strategies around the Baltic Sea 2010
- VASAB (2007) *A joint VASAB and Baltic 21 input to the EU Green Paper on Maritime Policy*. Schultz-Zehden A. and Ścibior K. (Eds.), retrieved on 12th of October 2012 from <http://www.vasab.org/?id=62>
- VASAB (2009) *VASAB Long-Term Perspective for the Territorial Development of the Baltic Sea Region. Towards better territorial integration of the Baltic Sea Region and its integration with other areas of Europe*. Riga: Vision and Strategies around the Baltic Sea
- WICHOROWSKI M., FIDLER K., ZWIERZ M. and KÄPPELER B. (2011) *Data exchange structure for Maritime Spatial Planning. "BaltSeaPlan Report no. 20"* retrieved on 5th of September 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>
- ZAUCHA J. (2007) *Rola przestrzeni w kształtowaniu relacji gospodarczych – ekonomiczne fundamenty planowania przestrzennego w Europie Bałtyckiej*. (The role of space in formation of Economic relation – Economic foundations of spatial planning in the Baltic Sea Region). Gdańsk: Uniwersytet Gdański, [In Polish]
- ZAUCHA J. (2008) *Sea use planning and ICZM*. East West Window project WG 3 Final Report. retrieved on 18th of October 2012 from www.vasab.org/east-west-window/documents.html
- ZAUCHA J. (2009) *Planowanie przestrzenne obszarów morskich. Polskie uwarunkowania i plan pilotażowy*. Gdańsk: Instytut Morski w Gdańsku, retrieved on 15th of October 2012 from <http://www.im.gda.pl/wydawnictwa> [In Polish]
- ZAUCHA J. (2010) *Pilot Draft Plan for the West Part of the Gulf of Gdansk. First Maritime Spatial Plan in Poland*. Gdańsk: Maritime Institute in Gdańsk, retrieved on 1st of June 2011 from <http://www.im.gda.pl/wydawnictwa>
- ZAUCHA J. (2012a) *Offshore Spatial Information – Maritime Spatial Planning in Poland. "Regional Studies"* 46(4), pp. 459-473
- ZAUCHA J. (2012b) *Commentary*. in: "Planning the Bothnian Sea". Helsinki: Helsinki Commission, pp. 137-139
- ZAUCHA J. (2012c) *Synteza aktualnego stanu wiedzy dot. rozwoju sustensywnego i spójności terytorialnej w planowaniu przestrzennym (analiza dokumentów UE, BSR i polskich)*. (Synthesis of current state of knowledge on sustainable development and territorial cohesion in spatial planning/examination of EU BSR and Polish documents) "Institute for Development Working Papers", Working Paper no. 001/2012 (005), [In Polish]
- ZAUCHA J., FEDOROV G., LIMONOV L. and ODING N. (Eds.), (2008) *Severo-zapad Rossyji v Regione Baltijskogo Moria: Problemy i perspektivi ekonomitsheskogo vzaimodeistviya i cotrudnithestva*, Kaliningrad: Kant University
- ZAUCHA J. and Matczak M. (2011) *Developing a Pilot Maritime Spatial Plan for the Southern Middle Bank*, "BaltSeaPlan Report no. 10". Gdańsk: Instytut Morski w Gdańsku, retrieved on 19th of October 2012 from <http://www.baltseaplan.eu/index.php/Reports-and-Publications;809/1>
- ZAUCHA J. and Matczak M. (2012) *Identification of maritime spatial planning best practices in the Baltic Sea Region and other European Union maritime regions*. Gdańsk: Instytut Morski w Gdańsku, Plan Bothnia project
- ZAUCHA J. and SZYDAROWSKI, W. (2011) *O terytorializację polityki morskiej Polski. Potrzeba innowacyjnego podejścia* (Towards territorialisation of the maritime policy of Poland. The need of innovative approach), in: J. Zaucha (ed.), "Polskie drogi polityki morskiej – od wizji do działania" (Polish approaches to maritime policy – from vision to action), pp. 229-243. Gdańsk: Instytut Morski w Gdańsku, [In Polish]
- ZAUCHA J. and ŚCIBIOR K. (2009) *Maritime spatial planning – pilot maritime plan in Poland*, in: Palmowski T. and Vaitekunas S. (eds.) "The Problems of Development and International Cooperation in the Region of the Southern Baltic", *Coastal Regions* 17, University of Gdańsk, pp. 144-158
- ZAUCHA J. and ZOTOV S. (2008) *Plan meropriyatii po vnedrenyu prostranstvrennogo planirovaniya morskikh akvatorii Rosii*, in : Zaucha. et al. (2008), pp. 263-272

List of key acronyms

BaltCoast – Transnational project entitled Integrated Coastal Zone Development in the Baltic Sea Region (an INTERREG project executed in 2002–2005).

Baltic21 – Former Baltic Agenda 21, currently the Expert Group of the Council of the Baltic Sea States (CBSS) dealing with issues related to sustainable development.

BaltSeaPlan – Transnational project entitled Introducing Maritime Spatial Planning in the Baltic Sea (an INTERREG type of project executed in 2009–2012).

BSPA – Baltic Sea Protected Areas, i.e., areas of high ecological value in the BSR requiring protection, listed in the HELCOM RECOMMENDATION 15/5.

BSH – Bundesamt für Seeschifffahrt und Hydrographie – the Maritime Administration in Germany. It is a federal superior agency in Germany under the supervision of the Federal Ministry of Transport, Building and Urban Affairs. It is in charge of maritime spatial planning in the German EEZ and has national competence in approving offshore installations, such as wind parks or pipelines. BSH also carries out hydrographic surveys and environmental monitoring of the sea, and owns Germany's largest marine database.

BSR – Baltic Sea Region – the region encompassing the following countries: Belarus, Denmark, Estonia, Latvia, Lithuania, Norway, Poland, Sweden, as well as the following regions from Germany: the lands of Mecklenburg-Vorpommern, Schleswig-Holstein, Berlin, Brandenburg, Hamburg, and from the Russian Federation: Kaliningrad, Leningrad, Murmansk, Novgorod, Pskov Oblasts, the city of St. Petersburg and the Republic of Karelia.

CBSS – The Council of the Baltic Sea States is an overall political forum for regional intergovernmental cooperation. It was founded in 1992 to handle a multitude of issues concerning the Baltic Sea Region such as economy, civil society development, human rights issues and nuclear and radiation safety. As of 1998, a permanent Secretariat has been established in Stockholm. The highest institution of the CBSS is the Conference of Foreign Ministers, which convenes every two years and the Prime Ministers Meetings in the same intervals.

CEMAT – European Conference of Ministers responsible for regional/spatial planning brings together representatives from the 47 member states of the Council of Europe. The most important document in the field of spatial planning are the Guiding Principles for Sustainable Spatial Development of the European Continent, adopted in 2000.

Climate change – is any long-term significant change in the “average weather” that a given region experiences. Average weather may include average temperature, precipitation and wind patterns. It involves changes in the variability or average state of the atmosphere over durations ranging from decades to millions of years. These changes can be caused by dynamic processes on Earth, external forces including variations in sunlight intensity, and more recently by human activities.

CSPD – Committee on Spatial Planning and Development of the Baltic Sea Region, the group of senior officials of the BSR countries steering and guiding the daily work of VASAB, i.e., the VASAB Steering Committee. The name was changed in 2009. In the years 1994–2009, the group worked under the name of the Committee on Spatial Development in the Baltic Sea Region (CSD/BSR) and, in the years 1992–1994, as the Group of Focal Points.

DG Mare – Directorate-General for Maritime Affairs and Fisheries of the European Commission. It is the Commission department responsible for the implementation of the Common Fisheries policy and of the Integrated Maritime Policy made up of six Directorates dealing with all aspects of both policies, including among others conservation, control, market measures, structural actions and international relations relating to fisheries.

East West Window (EWW) – the project of VASAB executed in the years 2007–2008 aimed at accelerating the Baltic Sea Region development through better connecting of the existing potentials within the region. The project promoted territorial integration of the North-West Russia and Kaliningrad into the Baltic Sea Region through joint spatial planning and development actions in the priority fields such as business development, transport and ICT development as well as in the sea use planning and Integrated Coastal Zone Management.

EC – European Commission. It is one of the main institutions of the European Union. It represents and upholds the interests of the EU as a whole, drafts proposals for new European laws, manages the day-to-day business of implementing EU policies and spending EU funds.

EEZ – Exclusive Economic Zone, i.e., sea zone in which according to the United Nations Convention on the Law of the Sea a coastal

nation enjoys control of all economic resources, i.e., fishing, wind and current energy, sediment extraction, mining, oil exploration, and any pollution of those resources. However, it cannot regulate or prohibit passage or loitering above, on, or under the surface of the sea.

EIA – Environmental Impact Assessment is as a formal process used to predict the environmental consequences of any development project. EIA thus ensures that the potential problems are foreseen and addressed at an early stage in the projects planning and design. The EIA Directive on Environmental Impact Assessment of the effects of projects on the environment was first introduced in 1985 and was amended in 1997 and in 2003.

ESDP – The European Spatial Development Perspective is a document approved by the Informal Council of Ministers of Spatial Planning of European Commission in Potsdam in 1999. It is a legally non-binding document forming a policy framework with 60 policy options for all tiers of administration with a planning responsibility. The strategic aim is to achieve a balanced and sustainable spatial development strategy.

ETC – European Territorial Cooperation – the third objective of the EU Cohesion Policy in the years 2007–2013. The European Territorial Cooperation objective is financed by the European Regional Development Fund (ERDF) and supports cross-border, transnational and interregional cooperation programmes.

EU – European Union is a political and economic union of twenty-seven member states, located primarily in Europe. It was established by the Treaty of Maastricht in 1993 upon the foundations of the pre-existing European Economic Community.

GIS – Geographic information system (system designed to capture, store, process and present geographical data).

HELCOM – Helsinki Commission is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area – more commonly known as the Helsinki Convention. The Helsinki Commission, or HELCOM, works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

ICZM – Integrated Coastal Zone Management (a dynamic, multidisciplinary and interactive management process to promote sustainable management of coastal zones) Nowadays the EU has switched to the term Integrated Coastal Management.

IMO – The International Maritime Organization (IMO), formerly known as the Inter-Governmental Maritime Consultative Organization (IMCO), was established in 1948 through the United Nations to coordinate international maritime safety and related practices. The IMO promotes cooperation among governments and the shipping industry to improve maritime safety and to prevent marine pollution.

INSPIRE – Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community was published in the official Journal on 25 April 2007. The INSPIRE Directive entered into force on 15 May 2007.

INTERREG – family of EU programmes supporting cross-border, transnational and interregional cooperation.

INTERREG III – former EU initiative which aimed to stimulate interregional, transnational and cross-border cooperation in the EU between 2000 and 2006. Nowadays it has been substituted by the ETC programmes.

LISBON (process) – also known as the Lisbon Strategy or Lisbon Agenda, is an action and development plan for the European Union. It is aimed at making the EU “the most dynamic and competitive knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment by 2010”. It was set out by the European Council in Lisbon in March 2000. Nowadays it has been replaced by the EU Strategy Europe 2020.

LTP – VASAB Long Term Perspective for the Territorial Development of the Baltic Sea Region, the most recent vision and strategy for spatial development of the Baltic Sea Region till 2030 that replaced the former vision and strategy agreed by the BSR Ministers on spatial planning and development at their third conference in Tallinn in December 1994.

MIG – Maritime Institute in Gdańsk. It is a research and development institute located in Gdańsk supervised by the Polish Ministry of Transport, Construction and Maritime Economy, which is responsible for taking care and preserving the values of the sea and for Polish maritime affairs. The Institute conducts research work, scientific and implementation projects, studies and assessments.

MARXAN – SPatially EXplicit ANealing (software assisting choice of the most suitable areas for given functions under spatial or environmental planning).

MEA – Millennium Ecosystem Assessment (assessment of the Earth's ecosystems, ecosystem services and set of policy relevant recommendations stemming from those appraisals).

MSFD – Marine Strategy Framework Directive of the EU adopted in June 2008 in order to protect more effectively the marine environment across Europe. It aims at achieving good environmental status of the EU's marine waters by 2020 and at

protecting the resource base upon which marine-related economic and social activities depend. The Marine Strategy Framework Directive establishes European Marine Regions on the basis of geographical and environmental criteria. Each Member State – cooperating with other Member States and non-EU countries within a marine region – are required to develop strategies for their marine waters.

- MSP** – Maritime Spatial Planning defined by VASAB as a (legally based) hierarchical process reconciling competing claims on the sea space (sea surface, sea bottom and water column) in line with the goals and values of the given society, manifested in national and international priorities and agreements. MSP guides and monitors sea space development through the appropriate instruments (e.g. vision, strategies, spatial plans).
- NATURA 2000** – an ecological network in the territory of the European Union. In May 1992, the European Union adopted the Habitats Directive that complements the Birds Directive adopted in 1979. The Birds Directive requires the establishment of Special Protection Areas (SPAs) for birds. The Habitats Directive similarly requires Special Areas of Conservation (SACs) to be designated for other species, and for habitats. Together, SPAs and SACs make up the Natura 2000 sites.
- PartiSEApate** – Transnational project entitled Multi-level Governance in MSP (Maritime Spatial Planning) throughout the Baltic Sea Region (an INTERREG type of project executed in 2012–2014).
- PlanCoast** – Transnational project entitled Spatial Planning in Coastal Zones (an INTERREG project executed in 2006–2008).
- Plan Bothnia** – Transnational project that has initiated, tested and evaluated the added value of a cross-sectoral, transboundary and ecosystem-based Maritime Spatial Planning (MSP) in the Bothnian Sea, financed on the EU part by DG Mare as a MSP preparatory action for the Baltic Sea.
- SA** – Sustainability Appraisal (an appraisal of the economic, environmental, and social effects of a plan from the outset of the preparation process to secure conformity of the planning provisions with sustainable development paradigm, element of planning law in United Kingdom).
- SEA** – Strategic Environmental Assessment is a system of incorporating environmental considerations into policies, plans and programmes. It is sometimes referred to as Strategic Environmental Impact Assessment. The Convention on Environmental Impact Assessment in a Transboundary Context or the so called Espoo Convention laid the foundations for the introduction of SEA in Europe in 1991. In 2003, the Espoo Convention was supplemented by a Protocol on Strategic Environmental Assessment. The European SEA Directive (2001/42/EC) required that all member states of the European Union should have transposed the Directive into their national law by 21 July 2004.
- TIA** – Territorial Impact Assessment is the planning procedure in Germany and some other countries used usually for assessing the benefits of large scale infrastructure objects with regard to socio-economic development and environmental goals. It is a tool for assessing the impact of spatial development against spatial policy objectives or prospects for an area.
- UNCLOS** – United Nations Convention on the Law of the Sea (international agreement that specifies the rights and obligations of nations in their use of the world's oceans).
- UNESCO** – United Nations Educational, Scientific and Cultural Organization. This specialised agency of the United Nations (UN) contributes to peace and security by promoting international collaboration through education, science, and culture in order to further universal respect for justice, the rule of law, and human rights along with fundamental freedom proclaimed in the UN Charter.
- VASAB** – Vision and Strategies around the Baltic Sea – cooperation of ministers responsible for spatial planning and development of the BSR countries: Belarus, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Russian Federation, and Sweden.
- VELMU** – The Finnish Inventory Programme for the Underwater Marine Environment (a cooperational programme between seven Finnish ministries on monitoring sea environment of Finnish waters).
- WG3** – Working Group of VASAB acted in 2006–2008, responsible mainly for MSP and starting spreading the MSP process in the BSR.

VASAB – Vision and Strategies around the Baltic Sea – is an intergovernmental co-operation of ministers responsible for spatial planning and development of 11 countries of the Baltic Sea Region: Belarus, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, the Russian Federation and Sweden. VASAB is part of the network of the Council of the Baltic Sea States.

VASAB prepares policy options for the territorial development of the Baltic Sea Region and provides a forum for exchange of know-how on spatial planning and development between the Baltic Sea countries. VASAB recommends transnational policy measures, promotes methodology development and co-operation projects, co-operates with other pan-Baltic initiatives and promotes a dialogue with sector institutions. One of the main priorities of VASAB is introduction and development of maritime spatial planning in the Region.

