European Commission

DIRECTORATE-GENERAL FOR
MARITIME AFFAIRS AND FISHERIES

Maritime Spatial Planning Conference Addressing Land-Sea Interactions

St.Julian's, Malta 15-16 June 2017

#MSPLandSea

Conference Report

Maritime Spatial Planning Conference: Addressing Land-Sea Interactions

St. Julian's Malta, 15 – 16 June 2017

Conference Report, Version of 26 September 2017

This document was developed by the European MSP Platform for the European Commission Directorate-General for Maritime Affairs and Fisheries (DG MARE). It was developed as the result of the conference "Maritime Spatial Planning Conference: Addressing Land-Sea Interactions," 15 – 16 June 2017, which was organized by the European MSP Platform on behalf of DG MARE. The information contained in this document does not represent the official view of the European Commission.

Authors: Hannah Jones, Sue Kidd – University of Liverpool

Editing: Lisa Simone de Grunt, Clare Waldmann, Angela Schultz-Zehden – s.Pro

European MSP Platform Contractors:

with Thetis, University of Liverpool, NIMRD and Seascape Consultants

Contents

Foreword

The European Commission's Directorate-General for Maritime Affairs and Fisheries (DG MARE) was pleased to host the Maritime Spatial Planning Conference: Addressing Land-Sea Interactions (LSI) in St Julian's, Malta on 15th – 16th June, 2017. The conference, organized by the EU MSP Assistance Mechanism (EU MSP Platform) on behalf of DG MARE, was an interactive and engaging event which included knowledge exchange, debate and networking between participants. The conference aimed to inform delegates about LSI in general and the legislative and regulatory mechanisms demonstrated across Europe, as well as provide an opportunity for discussion and knowledge exchange between participants.

As the spatial pillar of the Integrated Maritime Policy of the European Union, the Maritime Spatial Planning Directive (2014/89/EU) establishes a framework for Maritime Spatial Planning (MSP), including the consideration of Land-Sea Interactions. The European Commission offers various support services to Members States for the implementation of the MSP Directive, including the European MSP Platform, which facilitates the exchange of MSP knowledge and experiences in diverse, implementation-oriented formats, including this conference.

The conference demonstrated there is a great deal of activity taking place with regard to LSI, particularly at local level. While it is important to consider the municipal scale, it is also vital to look at regional, national and sea-basin scales, to ensure that planning across larger regions is sustainable, and that the integrity of coastal areas and larger marine ecosystems is maintained. Sea-basin scale planning initiatives, including beyond the EU borders, provide Member States with examples of effective cooperation mechanisms. Apart from this report, the various practices and tools presented during the conference are available on the website of the European MSP Platform for further reference.

I would like to thank all speakers for their informative and thought provoking presentations and delegates for the high level of engagement during the conference. We look forward to seeing you again at future conferences and workshops. I would like to encourage those working in the MSP field to engage with the European MSP Platform to identify further areas for discussion, which could assist the implementation of the MSP Directive in all Member States over the coming years.

With best wishes for your future work,

Felix Leinemann
Head of Unit
DG MARE Unit A2: Blue Economy Sectors, Aquaculture and Maritime Spatial Planning

1. Introduction

Many maritime uses have an onshore component or implication, such as the shipping sector's need for ports or the grid connections required for offshore wind arrays. Similarly, many terrestrial activities and developments, especially in coastal areas, also impact the sea, such as wastewater discharge from urban areas. Natural processes also involve interaction between land and sea, such as coastal accretion and erosion caused by currents and weather events. Human activities and natural processes therefore interact with each other in complex ways along the land-sea interface.

When carrying out maritime spatial planning (MSP), it is important to consider the dynamics that occur between land and sea, and to ensure that spatial planning is conducted in an integrated manner across maritime and terrestrial areas. This is in the interest of both environmental protection of coastal areas and the effective development of maritime and coastal economies. It is also a minimum requirement of the MSP Directive (2014/89/EU)[1] to take land-sea interactions (LSI) into account when preparing maritime spatial plans.

There are a number of possible ways to address LSI in MSP, such as building on the experience of integrated coastal management (ICM), harmonising terrestrial and maritime spatial plans, and carrying out spatial planning at a scale that crosses the land-sea border. Where practice has already developed within Member States, different approaches are being taken, reflecting those nations' geographies and institutional and planning frameworks. Other Member States are now considering how best to deal with LSI in their MSP processes. All Member States could benefit from understanding the options that are available and considering how to develop their practice further.

The MSP Conference – Addressing Land-Sea Interactions brought together over 70 national experts and MSP practitioners from across Europe to exchange experiences and knowledge through a programme of presentations and interactive sessions focusing on key LSI issues and different institutional and legislative approaches to addressing these. Over the course of the conference, 15 presentations were delivered during four sessions covering an introduction to LSI; sub-national approaches; national and sea-basin approaches; as well as sectoral approaches to LSI and specific tools.

This report considers the relationship between LSI and the MSP Directive, ICM and MSP, and builds on the general framework for understanding land- sea interactions that was developed prior to the conference. The discussions held during the interactive sessions that focused on key LSI issues, sub-national approaches to LSI and addressing LSI in European sea basins, as well as the discussions that took place during the panel sessions are integrated throughout the report. The conference programme, general framework, summaries of speaker presentations and a list of conference participants can be found in the appendices and online on the EU MSP Platform website[2].

1 Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning

2 http://www.msp-platform.eu/events/msp-conference-addressing-land-sea-interactions

2. Background on Land-Sea Interactions

2.1 LSI in the MSP Directive

Interest in LSI has increased due to the need for its consideration in MSP, as stated in the EU MSP Directive 2014/89/EU (Article 6), through formal or informal processes such as ICM (Integrated Coastal Management, Article 7).

LSI in the MSP Directive

Art 6 para 2(a) sets out as one of the minimum requirements of MSP that LSI should be taken into account (also Art 4 paras 2 and 5).

Art 7 para 1 states that Member States may achieve this through the MSP process itself or by other formal or informal processes, such as ICM (in which case, the outcome must be reflected in the maritime spatial plans). In this context, para 2 states that MSP should aim to promote coherence with other relevant processes.

LSI is also referred to in the recital:

'Maritime spatial planning… should take into account land-sea interactions and promote cooperation among Member States' (recital 9).

'Marine and coastal activities are often closely interrelated. In order to promote the sustainable use of maritime space, maritime spatial planning should take into account land-sea interactions. For this reason, maritime spatial planning can play a very useful role in determining orientations related to sustainable and integrated management of human activities at sea, preservation of the living environment, the fragility of coastal ecosystems, erosion and social and economic factors. Maritime spatial planning should aim to integrate the maritime dimension of some coastal uses or activities and their impacts and ultimately allow an integrated and strategic vision' (recital 16).

2.2 ICM and MSP

ICM (also referred to as integrated coastal zone management, or ICZM) is a longer-standing practice than MSP that is also concerned with spatial management, but there are differences of emphasis between ICM and MSP. ICM generally focuses on collaboration between, for example, the voluntary, business and government sectors, and may result in strategies and management plans, but does not usually lead to the allocation of space to particular activities in the way that MSP may. ICM has a greater overlap with the land, often drawing in terrestrially-focused areas and bodies, whereas MSP tends not to extend its remit further inland than the high-water mark. Also, ICM is in most contexts a voluntary practice, rather than a statutory requirement, in contrast to MSP in the EU.

The uptake of ICM by Member States is encouraged through a Communication [3] and a Recommendation[4], where it is defined as a dynamic, multi-disciplinary and iterative process to promote the sustainable management of coastal zones. The need for informed participation and co-operation of all stakeholders is stressed. However, practice varies considerably according to local conditions. Importantly, for the Mediterranean, a common binding framework for ICM has been agreed upon within the framework of the Mediterranean Action Plan[5].

More generally, it is recognised that MSP and ICM should be linked where possible, as they both seek to address the problems of fragmented governance in coastal and marine settings, and have overlapping principles, such as the importance of stakeholder participation. They may therefore work together in addressing issues such as nature conservation, coastal flooding and defense and local economic development.

Currently, an LSI toolbox (see Annex 2) is being developed as a mechanism to integrate land-sea interactions into MSP and other strategic environmental assessments according to the principles of ICM. The toolbox aims to provide practical support for LSI practitioners, which can be easily applied within any administrative or governance arrangement.

2.3. A General Framework for understanding Land-Sea Interactions

Prior to the LSI conference, a General Framework for LSI was developed (Annex 4), which describes LSI as a complex phenomenon that involves both natural processes across the land-sea interface, as well as the impact of socio-economic human activities that take place in the coastal zone (see Figure 1). The framework demonstrated the dynamics of land-sea interactions and the options for institutional arrangement available to deal with such dynamics, as well as the different spatial scales.

The general framework informed the design of the conference programme of presentations and interactive sessions. The full programme is shown in Annex 1 and summaries of the presentations are available in Annex 2, whereas results from the discussions at the inter-active sessions have been integrated into the original briefing paper.

The three interactive sessions evolved around the following topics:

- Key LSI Issues
- Reflection on sub-national approaches to LSI
- Addressing LSI in European Sea Basins

The discussions have substantially enriched the original conference briefing paper with some interesting insights into current views on the key land-sea interaction issues facing European member states and upon the strengths and challenges of different institutional and legislative arrangements for addressing these issues.

---

3 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2000:0547:FIN:EN:PDF

4 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002H0413&from=EN

5 http://www.pap-thecoastcentre.org/pdfs/Protocol_publikacija_May09.pdf

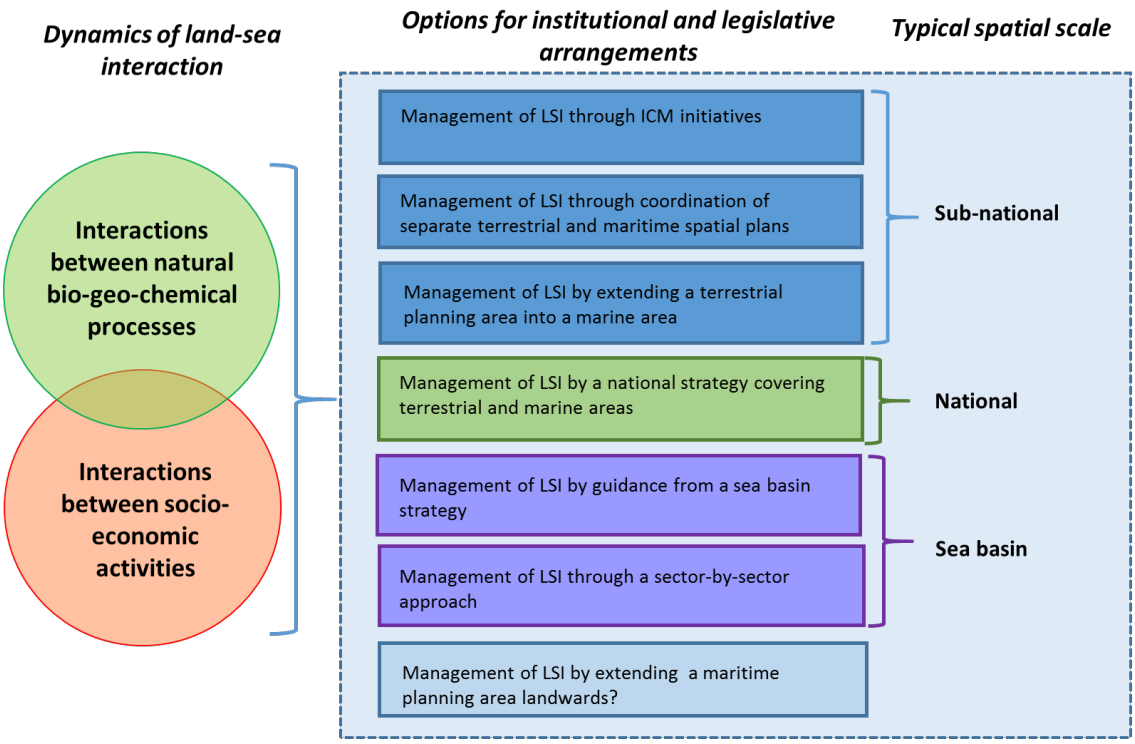


Figure 1. A General Framework for Addressing Land- Sea Interactions

3. Key Land-Sea Interaction issues

Identification of the key LSI issues for Europe was the focus of the first interactive session. A number of general points could be distilled from the discussions on key LSI issues for Europe:

Context matters

Although many LSI issues are common to all European seas, the detailed experience of LSI issues varies in significant ways between countries and sea basins. This reflects the differences in physical / human geography and legal / administrative arrangements, as well as wider cultural norms and perspectives. The extent of variation associated with physical / human geography factors is relevant in particular and highlights that there is no one-size-fits-all approach and thus that the particular context must always be taken into account when addressing LSI.

For example, the LSI experience of small islands is considered to be very different from that of large countries with small areas of coastline. This suggests that while there is much scope for developing common understanding and collaborative approaches to LSI, localized variations highlight the value in fostering diversity in LSI related practices.

Integrated perspectives are important

Interactions between land and sea and between environmental, socio-economic and governance elements are highly complex. While disaggregation of different LSI elements can aid understanding and help direct action, integrated system perspectives are required to address LSI in an effective way. The need to develop a broad based understanding of LSI issues among both terrestrial and marine stakeholders and the need foster integrated approaches to planning and management across land and sea must be taken into account when addressing LSI.

3.1 Key Issues related to Dynamics of Land-sea Interactions

Within the framework developed, interactions between land and sea are grouped as occurring between natural bio-geo-chemical processes, or interactions between socio-economic activities. These dynamic interactions highlight the complexity in which LSI needs to be addressed, especially when they occur in parallel. The conference pointed to numerous issues associated to these two dynamic interactions.

Interactions between natural bio-geo-chemical processes

The framework spelled out that interactions between natural processes can include for example agricultural run-off resulting in eutrophication of coastal waters, or land based pollution associated with industrial / agricultural activities affecting coastal waters. The coastlines subject to the highest environmental pressures are those surrounded by the Atlantic Ocean, the North Sea and the Baltic Sea, while other hotspots are evident along the northern shores of the Mediterranean and along the coasts of the Black Sea. The nature of these interactions has been investigated in a number of

EU-funded projects; for example, the Celtic Seas Partnership project[6] and the INTERREG-MED funded CO-EVOLVE project[7].

Key LSI issues relating to natural processes identified during the conference included coastal erosion (including coastal defence and coastal change) and pollution from landward activities, e.g. the impact on the good environmental status of the marine environment and associated human activities (such as land based sources of water pollution and marine litter and the subsequent impacts on marine species / habitats, shellfisheries / aquaculture, bathing waters). In addition, climate change is also a key LSI issue that relates to natural processes, such as the acidification of oceans, sea level rise / increased impacts of storms on coastal infrastructure, periods of coastal flooding and drought and connections to saltwater intrusion of freshwater systems.

Interactions between socio-economic activities

As shown in the original briefing paper, maritime uses often require support installations on land; for example, tourism, ports and recreational activities, which exist predominantly on land or inshore waters. The English Channel and southern North Sea are typical examples of regions with high levels of maritime activity. This is due to the concentration of population and economic activity on the London, Paris, Amsterdam axis, the presence of mega ports such as Rotterdam and channels such as the Nord-Ostsee-Kanal, one of the main trade routes between Europe and the rest of the world. EU funded projects such as the ESPON 2013 programme and the ESaTDOR project[8] sought to understand both the development opportunities and risks associated for Europe's maritime regions by understanding land sea interactions as an integrated whole.

Key issues for LSI identified during the conference relating to interactions between socio-economic activities include connectivity between offshore and onshore infrastructure and activities. This can refer to ports and inland economy and transport / traffic. It can also refer to offshore oil / gas / renewable energy developments and onshore cables / pipelines / supply chains / seascape views.

In addition, coastal tourism and the access for coastal communities to the sea are key issues for LSI. This includes connections to regional economies and community well-being, as well as coastal construction and defence, with particular reference to their impact on marine activities and marine environment.

3.2 Key Institutional and Legislative issues identified

The complex pattern of responsibilities between land and sea was identified as another key issue of concern when it comes to LSI interactions. There seems to be a concern for a general lack of integration regarding the application of European legislation such as the MSP Directive, the Marine

6 http://www.msp-platform.eu/projects/celtic-seas-partnership

7 http://www.msp-platform.eu/projects/co-evolve-promoting-co-evolution-human-activities-and-natural-systems-development

8 http://www.msp-platform.eu/projects/european-seas-and-territorial-development-opportunities-and-risks

Strategy Framework Directive[9] and the Water Framework Directive[10] as well as other pieces of European legislation and strategies. There is also uncertainty about who is responsible for what and whether the scale of governance related to LSI issues is fit for purpose. There is often a mismatch between administrative boundaries and the scale of natural and socio-economic LSI processes.

Discussions showed that synergies need to be created between MSP and regional development strategies. Regions can contribute to this, where they have powers in areas related to ICM and MSP, and they can play an important role in facilitating discussions with stakeholders. An integrated vision on MSP, ICM and LSI is needed, as natural processes and human activities on sea and on land influence each other.

A transect planning approach (TPA), traditionally used in environmental planning, can assist planners with integrating LSI into MSP. This approach focuses on particular hotspots such as when there are overlapping uses in maritime areas. TPAs can help identify particular spatial interactions and clarify the potential to position different planning functions, which could be associated with either marine or terrestrial planning. Member States must find a way to work within existing planning frameworks as long as there are no appropriate formal legislative frameworks in place to integrate LSI into MSP or terrestrial planning. Please see Francesco Musco's presentation for more information about TPAs (summary of his presentation on page 4 of Annex II).

- The Marine Strategy Framework Directive aims to achieve Good Environmental Status (GES) of the European waters by the year 2020 and aims to protect the resource base on which marine-related economic and social activities depend. It is a legislative instrument that protects marine biodiversity. The Directive includes reference to the ecosystem approach to the management of human activities that have an impact on the marine environment, as well as integrating environmental protection and sustainable use.
- The Water Framework Directive (WFD) provides a legislative framework for both land and sea. The Directive takes into account the input from rivers into the sea and can strengthen the environmental aspect of LSI. However, the WFD is often seen as an administrative burden for municipalities that sometimes hinders progress. It has faced difficulties in meeting its improvement targets and in communication between agencies.
- The Nitrate Directive[11] aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices. A number of politics influence agricultural production, such as the Common Agricultural Policy, which has been adapted to new challenges faced by European agriculture between 2014-2020. Currently the next reform is under discussion and provides the chance to strongly include land-sea interactions. Furthermore, the

9 Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy

10 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

11 Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources

implementation of the EU Nitrate Directive is central for the protection of freshwater and saltwater ecosystems to reduce nitrogen and phosphate inputs.

Considering the different legislative frameworks that concern LSI, there is little integrated governance and there are sometimes contradicting aspects. The challenge therefore is to achieve interaction between these agreements.

There is also a general lack of knowledge about LSI impacts, highlighting the need for monitoring but also the need for education and interpretation of expert material, including improved communication between different levels and stakeholders to inform LSI administrations.

In addition, discussions showed that there is uncertainty about how to promote sustainability at the land-sea interface and how to ensure a balanced approach to Blue Growth. These uncertainties can refer to developing an approach to sector needs, how to manage system interactions such as shipping and aquaculture and uncertainties concerning the interactions with terrestrial activities. The EU Blue Growth Strategy[12] focuses on maritime sector development in areas like aquaculture and coastal tourism. Developing those sectors requires effective management of land-based impacts from both coastal and rural regions, indicating the need for integrated coastal-rural governance.

Figure 2. Participants engaged in lively and dynamic exchanges during the conference.

12 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

4. Different approaches and scales to address LSI

4.1. Spatial Scales for Addressing LSI

LSI can be addressed at a variety of spatial scales, including:

- Local areas, such as ICM partnerships and economically-driven initiatives, involving municipalities and other local interests
- Sub-national planning territories, such as maritime plan areas, involving MSP authorities working in collaboration with coastal and maritime stakeholders
- National territories, where a national strategy or plan, covering the whole of the nation's waters, and possibly its land area as well, may guide LSI efforts
- Sea-basins / transnational regions, where transnational cooperation may produce a strategy or protocol for guiding national LSI efforts and ensuring ongoing cross-border cooperation

These scales are not mutually exclusive. For example, higher-level strategies may be implemented or supplemented at a sub-national or local level by other instruments for addressing LSI. It should also be recognized that spatial scales vary between Member States. In some contexts, the sub-national (regional) scale of governance is of great importance, whereas for other Member States only the local and national scales of governance exist. It is for each Member State / MSP authority to decide on the most suitable level(s) of governance for taking LSI into account in MSP processes, giving consideration to existing institutional arrangements for spatial planning and management.

4.2. Sub-national approaches to LSI

The briefing paper showed many different institutional and legislative approaches to addressing key issues for LSI. Sub-national approaches can include **ICM initiatives**, **coordination of separate terrestrial and maritime spatial plans**, and **extending a terrestrial planning area into a marine area**.

Following a series of presentations on relevant examples, the conference provided for more in-depth reflections on these different sub-national approaches, which are shown in the following tables.

In general discussions evidenced that **each approach has its strengths and challenges**.

- **ICM processes** are well placed to facilitate holistic planning for and management of coastal areas that are the focus of many LSI issues, but so far ICM activities are uneven in their coverage and often voluntary. The coordination of separate terrestrial and maritime plans may benefit from the special character of the marine environment being reflected in new planning approaches, however such approaches may fragment efforts in relation to LSI without clear guidance and collaborative effort.
- **Extending terrestrial planning into the marine area** can facilitate a more coherent approach to LSI, as overall control of planning is then the responsibility of a single authoritative body, but terrestrial authorities may not have sufficient data, experience or understanding to adequately take into account aspects of the marine area.

In addition, sub-national **approaches to LSI reflect different local contexts**. Key factors relating to legal and institutional factors are important for determining the development of different

approaches to addressing LSI across Europe. In this sense, the different options for sub-national LSI governance are not necessarily appropriate for all Member States.

In some countries, the management for LSI does not fall distinctly into one category or another. **Mixed approaches** to LSI are not uncommon and could bring benefits by combining the strengths of different approaches.

4.3 Additional approaches to LSI

In addition to the sub-national institutional and legislative approaches to LSI, there are also several other options to approach LSI. One approach includes the management of LSI through the creation of a **national strategy covering both the terrestrial and the marine environment**. Countries such as the Netherlands and Malta have taken this approach, with the latter having adopted a Strategic Plan for Environment and Development, which is the overarching document for planning issues on land and at sea, also constituting the national Maritime Spatial Plan.

The management of LSI can also be undertaken on a larger, sea-basin scale, where it can benefit from **guidance from sea basin strategies**. For example in the Baltic Sea Region, VASAB was established as an intergovernmental multilateral co-operation to develop long-term strategies and visions for the region, including spatial planning and development. In the Mediterranean, UNEP-MAP is taking LSI on board, in particular through the PAP/RAC that is specifically focused on the implementation of the ICZM protocol. This protocol expressly includes territorial waters within its geographic scope, creating a direct link to MSP.

LSI can also be managed within **sectors** themselves, such as the oil and gas sectors or tourism sectors sometimes operating at a sea basin scale. For example, the INTERREG MED-funded project CO-EVOLVE started at the beginning of 2017, and it is currently analyzing and promoting the co-evolution of human activities and natural systems in touristic coastal areas in the Mediterranean, allowing for the sustainable development of touristic activities, based on the principles of ICM and MSP.

It is also technically possible that LSI could be addressed by **extending the remit of MSP inland**, landwards of the high-water mark (in contrast to extending a terrestrial planning area seawards (4.2.3). However, this would impinge on existing terrestrial planning systems. This is not an approach that appears to have been adopted so far.

Management of LSI through ICM initiatives

LSI may be managed through ICM initiatives that are already established. The ICZM Protocol of the Barcelona Convention is directly concerned with LSI and provides for exchange of experience, but there are different speeds of application in its Member States. However, the institutional and operational structure can offer a good practice example for EU Member States. In addition to the ICZM protocol, Croatia is developing a Joint Management Strategy for Marine Environmental and Coastal Zone Areas and the related Action Programme. The strategy links the ICZM Protocol obligations with the obligations of the MSFD. The development of ICM activities to manage LSI should be promoted through a structured approach to funding opportunities.

Strengths	***Challenges***	***Good Practice Proposals***
• Can provide carefully founded ICM principles on how to tackle LSI • Many sources of local expertise on LSI • Great diversity of applied ICM approaches • Many ICM projects have delivered practical results • Many well-established institutions with experience in engaging networks of stakeholders in LSI issues, some with connections to Regional Seas Conventions (Mediterranean) • Wide scope addressing both planning and management of LSI issues • Can work well for smaller areas • It is a process which can support MSP and terrestrial planning in well-defined coastal areas where LSI issues tend to be most intense • Detailed, problem-oriented and more flexible than statutory approaches • ICM can address LSI issues through visioning	• ICM is so far only voluntary wit the exception of Mediterranean countries and is not on the political agenda • ICM does not necessarily inform licensing regimes; it needs to be driven forward by a national strategy in order to be effective • ICM is not understood in the same way in various regions / countries – unlike MSP it can be mean different things • Most ICM initiatives rely on project funding, which is not always secure • ICM tends to be focused on coastal areas and might not be strategic enough for complex LSI issues • ICM initiatives may place more emphasis on environmental protection (e.g. in the ICZM Protocol in the Mediterranean)	• Latvia developed permanent councils of coastal municipalities that approach common problems and share solutions • The formalized ICM protocol of the Barcelona Convention that applies to Mediterranean Member States could provide examples for other Member States

Management of LSI through coordination of separate terrestrial and maritime spatial plans

Some Member States have chosen to maintain separate terrestrial and marine planning systems whilst still ensuring that land-sea interactions are taken into consideration. An example of this can be seen in Finland where land-sea interactions are strongly reflected because the Land Use and Building Act is implemented in territorial waters as well, and plans cover usually both land and sea. Still, there are also some regional plans covering only sea areas. In other cases, marine areas are planned for in the frame of regional plans that cover both terrestrial and marine areas, such as the Finnish regional plans for Uusimaa, Varsinais-Suomi, Satakunta or Keski-Pohjanmaa.

Strengths	***Challenges***	***Good Practices***
• Terrestrial plans are different from marine plans (4 maritime dimensions): a coordination recognizes those differences and allows plans to be more specialized • Allows for a combination of different points of view • May result in better stakeholder engagement in clearly separate plans • In some countries coordination / cooperation among different institutions is well-established: approach builds upon established practices • Both maritime spatial plans and terrestrial plans are legally enforceable and could provide a clear legislative framework to guide LSI	• Not holistic, may present difficulties in applying different land and sea-based procedures to shared LSI issues (e.g. connection of wind turbines with cables extending on land) • Risks of complex legislative fragmentation • Potential challenge dividing roles and responsibilities among responsible institutions • Governance structure is different and there might be communication / coordination / implementation issues particularly where different levels of government are involved • A great coordination effort is needed to properly address LSI issues, balance marine and terrestrial perspectives, and to ensure that LSI issues are addressed clearly and explicitly in both terrestrial and marine plans • Proper coordination between maritime and terrestrial plans only works when cross-border: neighboring countries that don't follow the same approach could slow down planning processes • Separate processes may not be optimal in terms of stakeholder engagement and developing holistic approaches to addressing LSI issues	• Belgium's State Secretary for the North Sea is responsible for both MSP and terrestrial planning • Malta has installed technical committees with expert decision-makers that support planning processes • In the UK a coastal concordat brings together all licensing bodies • Sweden has experience with coordinating terrestrial plans and MSPs • Transboundary pilot plans for Romania / Bulgaria are being developed through the MARSPLAN project

Management of LSI by extending a terrestrial planning area into a marine area

Local and regional scale territorial plans can also extend to the marine environment with a view to include land-sea interactions within these areas. Extending terrestrial planning to the sea could lead to terrestrial measures not being fit for purpose i.e. may not be appropriate for the marine environment. However, there exist several examples across Europe where LSI is managed by extending terrestrial plans to marine areas. For example, the Spatial Planning Act of Mecklenburg-Vorpommern (Germany) covers both land and sea areas (12nm-zone), and the Spatial Development Programme Mecklenburg-Vorpommern contributes to integrated land-sea spatial development. The original idea was to extend ICM to 'more offshore' areas – thus it was called Integrated Maritime Spatial Planning – it was not meant to only cover 'planning' but also the implementation / management aspects.

Strengths	***Challenges***	***Good Practice Proposals***
• More holistic - no fraction between land and sea • More coherent as overall control of planning under the authority of one body means conflicts are reduced and implementation is likely to be easier • Most LSI issues are covered in one plan / licensing process, as most LSI issues occur in coastal waters • Competent authority has full knowledge of all planning aspects – streamlines processes • Encourages coordination at the local level • Forces terrestrial planners to cooperate and integrates marine and terrestrial aspects in a supportive way without one "overrunning" the other • Territorial development aspects are easier to translate to stakeholders – how does it affect them e.g. more jobs, improved economy, etc.) potentially resulting in better stakeholder feedback and engagement with LSI issues	• There may the be danger of terrestrial dominance (as there is more expertise in terrestrial planning) • Possibly overlooks the scientific, societal and geographical differences between the two areas and the runs the risk of copying mistakes / approaches from the land and not developing new tools appropriate to the marine context • Applying terrestrial zoning practices to sea might be too rigid as it does not take in consideration some contradistinguishing aspects of MSP – 4 dimensions, temporal differences (i.e. seasonality), regulation of different uses enabling synergies • Municipalities / authorities may not have sufficient data / experience/ understanding to take aspects of the marine area reasonably into account during the planning process • Offshore implications of LSI issues may not be addressed appropriately	• Germany (Mecklenburg- Vorpommern) • Finland • Connecting to ICM activities (such as the joint strategy on ICZM and MSFD applied in Croatia) was seen to be beneficial from an LSI perspective.

5. Addressing LSI in European Sea Basins

In the final interactive session of the conference, delegates were divided into groups according to sea basin and were asked to consider the significant LSI issues in the areas – Atlantic Ocean, Baltic Sea, Black Sea, Mediterranean Sea, and North Sea and also to reflect on the role that different established transnational institutional and legislative arrangements might play in addressing LSI. The result of discussions per sea-basin are summarised in the following tables.

Generally discussions showed that there are **different perspectives on what constitutes a significant LSI issue** across different European Sea Basins. For example, coastal erosion/coastal protection was identified as particularly significant in the Atlantic, Baltic, and Mediterranean seas, mass coastal tourism and coastal urbanisation and impacts on the wider marine environment were prominent in discussions in the Black Sea and Mediterranean, while transnational management of supply chains linking shipping, port &inland transport infrastructure and import/export industries was regarded as particularly important in the North Sea.

Contrasts also emerged in relation to issues related to **LSI governance**, with the enforceability of transnational plans highlighted in the Baltic, while a lack of legislation and strategies to deal with LSI is evident in the Black Sea. In the Atlantic Ocean, it was stressed that strong governance structures exist in relation to monitoring programmes and that there seems to be adequate communication between the different institutions. Where institutions are connected to international conventions, there is a greater focus on environmental LSI issues, as well as a natural science orientation and a procedural approach.

Opportunity for cooperative sea-basin approaches to LSI. In all sea basins, transnational institutional and legislative arrangements are established that can help Member States with managing LSI. These range from institutions associated with international conventions to regional development programmes and projects, as well as mechanisms associated with the delivery of European Directives including the MSFD, WFD and MSP Directive. There also exist various other transnational fora, ranging from the formal to the informal.

However it was noted that many of these organisations were only partial in the coverage of LSI issues and/or land/sea responsibilities and that the scope for improved synergy and joined up action to better address LSI at a regional sea scale was great.

Further **suggestions for improvement** included a better integration of the existing mechanisms, for example by combining or coordinating monitoring programmes. There is also an opportunity for voluntary fora to be better connected to formal systems and to play a greater role in addressing LSI issues. Moreover, as suggested by participants from the North Sea, mechanisms could be developed to manage LSI related to specific food webs. In the Baltic, many projects are of high relevance for LSI as they provide holistic and sectoral perspectives and are planning oriented. The challenge remains, however, how to catch the attention of national sectors and those who are traditionally not interested in planning (such as sectors including shipping). Moreover the uptake of specific tools identified by projects, such as sediment tools, for further work on LSI should be improved.

Atlantic Ocean

Significant LSI issues	***Institutional and legislative arrangements***
• Coastal erosion • Climate change • Air quality associated with ports and related activities • Landscape and visual impacts of windfarms	**OSPAR** OSPAR - Protecting and Conserving the North-East Atlantic and its resources, is the mechanism for governments to cooperate on the implementation of the Convention for the Protection of the Marine Environment of the North East Atlantic. OSPAR works on a number of fields including biodiversity and ecosystems, hazardous and radioactive substances, human activities and offshore industries. OSPAR had installed a dedicated working group on MSP that is inactive at this time. **Atlantic Strategy** The Atlantic Strategy[13] provides directions for investment and funding relevant to LSI issues. As it is high level, its influence is rather intangible and bottom-up interaction is limited at present. **Atlantic Arc Commission** The Atlantic Arc Commission is one of the Conference of the Peripheral Maritime Region's (CPMR) six geographical Commissions. In the general work of the CPMR, LSI is being looked at in terms of implementation of the MSP Directive with reference to Articles 4, 6 & 7, but also Article 9, which includes a requirement for consulting with other relevant parties and stakeholders. **Voluntary & Sectoral fora** For example Fisheries Advisory Councils provide mechanisms for discussion and knowledge- and experience sharing concerning a range of LSI issues. There are different levels of involvement in different Member States across the Atlantic Ocean.

13 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Developing a Maritime Strategy for the Atlantic Ocean Area

Baltic Sea

Significant LSI issues	*Institutional and legislative arrangements*
• Strategic alliances between mechanisms and projects feeding into practices include LSI aspects • Pilot plans have fostered MSP processes and support strong collaboration between stakeholders	**VASAB** VASAB is an intergovernmental multilateral co-operation of 11 countries of the Baltic Sea Region (BSR) on spatial planning and development. Its current work is guided by the 2009 "VASAB Long-Term Perspective for the Territorial Development of the Baltic Sea Region" strategic document, which considers MSP as a key instrument for the alleviation of potential sea use conflicts. **HELCOM** HELCOM is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention). In 2007, HELCOM developed the new Baltic Sea Action Plan (BSAP), which introduced MSP as a process aiming at more coherent management of human activities in the Baltic Sea. HELCOM is an excellent coordinator for LSI activities. **HELCOM – VASAB MSP working group** The joint Baltic Sea MSP Working Group, established by HELCOM and VASAB, is a forum for intergovernmental discussions on MSP. The Working Group hosts dialogues on recent and future developments in the field of MSP in the Baltic Sea Region. **EUSBSR** The objectives of the European Strategy for the Baltic Sea Region are to save the sea, increase prosperity and connect the region. Spatial planning is here seen as one of four major tools to achieve these objectives. The strengths of the strategy are transnational cooperation and tools developed to implement the strategy on vertical and horizontal level. However, there is still a lack of continuous implementation and huge potential to be used by Member States. Numerous other organisations working across the Baltic Sea Region also consider land-sea interaction issues, such as KIMO (Marine Litter), the Council of the Baltic Sea States (CBSS) as well as: The **SUBMARINER** Network as a unique platform that brings actors and initiatives from the Baltic Sea Region together to actively promote innovative and sustainable uses of marine resources. It integrates perspectives from local to international scale, different science disciplines as well as policy and economic

	stakeholders. Current work on MSP related land-sea interaction concerns marine aquaculture, maritime cultural heritage as well as development of new tools to consider land-sea interaction. The **CPMR Baltic Sea Commission** is one of six Geographical Commissions, which comprise the Conference of Peripheral Maritime Regions of Europe (CPMR). The Baltic Sea Commission contributes to CPMR reflections and policy positions, and acts as a lobby and think tank for the regions around the Baltic Sea. The thematic working group, Maritime Working Group, monitors developments on MSP. **BSSSC.** The Baltic Sea States Sub-regional Co-operation (BSSSC) is a political network consisting of regional authorities from the 10 littoral states of the Baltic Sea. The network stresses the importance of coordinating different EU and national policies across the Baltic Sea Region and has installed a working group on Maritime Policy.

Black Sea

Significant LSI issues	***Institutional and legislative arrangements***
• Mass coastal tourism and related environmental impacts • Lack of accurate and up to date data • Geopolitical barriers to addressing LSI • Lack of legislation and strategies to deal with LSI	**Black Sea Basin Programme** The programme provides opportunities to extend existing European experience to the Black Sea and is particularly useful concerning the development of transboundary cooperation and improving LSI practices through networking. **Black Sea Commission** The Commission on the Protection of the Black Sea against Pollution provides an inventory of data, partnership and governance of relevance to the environmental dimensions of LSI, as well as challenges related to political issues. It could take a lead in data standardization and monitoring of environmental aspects.

North Sea

Significant LSI issues	*Institutional and legislative arrangements*
• Transnational management of supply chains linking shipping, port & inland transport infrastructure, import / export industries • Offshore renewable energy developments and impacts on shipping / port accessibility • Difficulties in transnational management of LSI as many issues are country specific	**OSPAR** OSPAR is an international co-operation organization with the potential to take responsibility for transnational LSI issues, however it is questioned whether or not there is a mandate for this and if the correct management systems are in place. **North Sea Commission** The North Sea Commission is a political cooperation platform for regions across the North Sea. The aim is to promote common interests, especially concerning EU institutions, national governments and other organizations that deal with issues relevant to the North Sea, including LSI. One of the focus areas of the North Sea Region 2020 Strategy is MSP. One of the thematic working groups , 'Marine Resources', includes exchange of best practice on ICZM and MSP across the North Sea.

Mediterranean Sea

Significant LSI issues	*Institutional and legislative arrangements*
• Coastal erosion • Climate change • Intense transport/traffic • Urbanization and impacts on wider marine environment • Institutional fragmentation	**Barcelona Convention ICZM Protocol** The Protocol is directly concerned with LSI and provides for exchange of experience, but there are different stages of application between countries. **EUSAIR** The macro-regional strategy provides a common political agreement for the Adriatic, which is of key relevance to LSI issues, but there is a need to improve the operationability. There is also a need to develop good practices regarding the integration of ecological and economic parts. **UNEP MAP/ Regional Activity Centers** (RACs) In the Mediterranean there RAC SPA, which relates to, the RAC SPC, which relates to marine litter, and the INFO RAC, which disseminates information, provides informal institutional settings (although there is a desire for more formalized settings) and facilitates networking through events and conferences **BLUE MED initiative** strengthens cooperation on Mediterranean issues of relevance to LSI, but the long term sustainability of the initiative may be a challenge.

6. Ways Forward

Figure 3. Concluding remarks during the conference

- **The value of diversity in approaching LSI**

The LSI framework outlined in the conference briefing paper provides an interesting way to structure the discussions on LSI issues and the different approaches that are being developed across Europe to address these. The conference discussions revealed the great diversity of experiences, both within and between European Seas and made clear that a one-size-fits-all approach to tackling LSI is not appropriate. Variations in context means that what might be relevant and work well in one area or sea basin, might not be appropriate in another. However, there are many useful lessons learned from different experiences which can be shared.

- **Learning from ICM**

Integrated Coastal Management is a voluntary tool designed to address many LSI issues that is implemented in different ways across Europe. It provides much valuable experience and in some instances, such as the Barcelona Convention, established mechanisms can be built upon to find new ways to integrate maritime and terrestrial planning and to address LSI issues appropriate to contemporary issues.

- **Connecting strategic and local level action**

All European Sea Basins have experience with strategic level agencies and projects of various sorts that can provide frameworks for addressing LSI issues. Although in many cases these are partial in their scope and remit, they can offer useful guidance to lower levels of governance, which are often

important for implementation. However, there is often a gap in understanding between the various levels that can hamper effective responses to LSI. More generally, there is a need to increase knowledge of LSI among all stakeholders and this requires improved LSI related data collection.

- **The importance of sea-basin scale approaches**

The MSP Directive presents new opportunities to address issues that have been investigated for many years, but it is important to recognize that it is only one of many mechanisms which can be used to address LSI. DG MARE has recognised the importance of stepping back to look at maritime issues at sea basin or sub-sea basin scale. European funding has been made available to support action at this scale and there are many examples of successful projects that have addressed LSI. Whilst further EU funding for projects can provide an avenue for continuing this work, a long-term sustainable mechanism has yet to be identified. For example, HELCOM-VASAB cooperation is an example of how Member States can work together without direct input from the Commission and could be a model for addressing LSI at a transnational scale that other sea basins could follow.

- **Knowledge Exchange**

Throughout the conference, practices and strategies were presented to participants, some of which are already available on the MSP Platform and others will be added as a result of the dynamic and interactive discussion and engaging presentations. Whilst it was noted that there is no one-size-fits-all solution to LSI issues, the search function available on the MSP Platform Practices database allows users to search by issue, sector, sea basin and other fields allowing Member States to exchange knowledge and experiences effectively. A number of interesting questions were also raised during plenary sessions which will be added to the FAQ section of the EU MSP Platform website.

Annex I Conference programme

Please find on the next pages, the conference programme for the Maritime Spatial Planning Conference: Addressing Land-Sea Interactions, that took place in St. Julian's, Malta on 15 and 16 June 2017.

European Commission

DIRECTORATE-GENERAL FOR
MARITIME AFFAIRS AND FISHERIES

Maritime Spatial Planning Conference
Addressing Land-Sea Interactions

St.Julian's, Malta 15-16 June 2017

#MSPLandSea

Conference Programme

Practical Information

Thursday 15 June 2017

13:30 **ARRIVAL AND REGISTRATION**
COMPLIMENTARY LUNCH FOR ALL PARTICIPANTS

14.00 **OPENING REMARKS**

- Johan Buttigieg, Malta Planning Authority
- Felix Leinemann, DG MARE
- Angela Schultz-Zehden, EU MSP Platform

14.15 **INTRODUCTION TO LSI**

- LSI framework
  – Sue Kidd, University of Liverpool, UK
- Damien Perissé CPMR
- Francesco Musco, IUAV University

Audience Q & A

15.15 **INTERACTIVE SESSION**

Participants will discuss, the key LSI issues within their country / context in a roundtable exercise

16.00 **COFFEE BREAK**

16.30 **SUB-NATIONAL APPROACHES TO LSI**

Examples of sub-national approaches to LSI

1. Regional land use plan for the Sea, Kymenlaakso Region
   – Frank Hering, FI
2. LSI within the Belgian MSP-ICM process
   – Kathy Belpaeme, Flanders Province, BE
3. LSI integration into MSP in Mecklenburg-Vorpommern,
   – Holger Janßen, Ministerium für Energie, Infrastruktur und Digitalisierung Mecklenburg-Vorpommern, DE

Audience Q & A

European MSP Platform

European Commission
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

17.30 INTERACTIVE SESSION

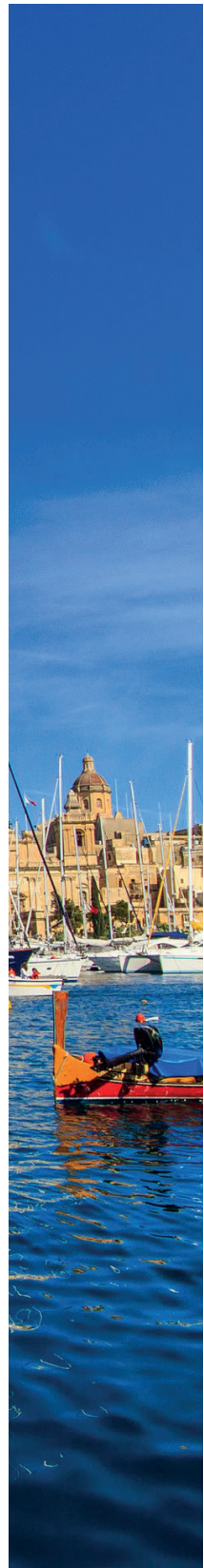
Participants will be asked to discuss the strengths and weaknesses of the sub-national approaches to LSI they have just heard about and also to share their own experiences.

18.15 CLOSING REMARKS AND PREVIEW OF DAY 2

18:30 COMPLIMENTARY EVENING RECEPTION

A complimentary evening reception including flying buffet will be held for all participants at the Hilton Malta.

When leaving the Intercontinental Hotel, turn left until you enter the Triq Santa Rita street on your right. Follow this road as it flows into the Triq il-Wilga. Turn right at Triq Paceville, until you turn left at S.Privitera, and first right at Triq il-Knisja. At the roundabout, take the first left at Vjal Portomaso. You will find the Hilton hotel after the second rouabout. The evening reception will take place in the outdoor gazebo area. Blue flags will guide you along the route.



Friday 16 June 2017

08.30 ARRIVAL AND COFFEE

09.00 NATIONAL AND SEA-BASIN APPROACHES TO LSI

Examples of national-level approaches to LSI

1. Portuguese experience with ICM, Fatima Alves, Aveiro University, PT
2. LSI approach in Slovenia - Lenča Humerca Šolar, Slovenian Ministry of the Environment and Spatial Planning, and Slavko Mezek, Regional Development Centre Koper, SI
3. Examples of the CAMP projects related to LSI in the frame of PAP-RAC which sets the overall ICM frame in the Mediterranean Sea - Marina Markovic, UN-EP-MAP Priority Action Programme Regional Activity Centre
4. Outcomes of the BaltSCOPE project with considerations of the high importance of Land-Sea Interactions, Inguna Urtane the Ministry of Environmental Protection and Regional Development of Latvia on behalf of VASAB

Audience Q&A

10.00 Interactive Session

Participants will be asked to discuss suitable approaches to LSI within their country / sea basin and to consider the key LSI issues that they face (e.g existing and future hot spots).

10.45 COFFEE BREAK

European MSP Platform

European Commission

DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

11.15 SECTORAL APPROACHES TO LSI AND SPECIFIC TOOLS

Examples of sea-basin-level approaches to LSI

1. LSI in port areas – lessons learned - Lodewijk. Abspoel, Minienm, NL
2. Burgas Case Study, Margarita Stancheva, IOBAS, Varna, BG
3. Coastal data for IMP, Corine Lochet, SHOM, FR
4. Examples of participatory engagement in MSP and lessons learned through ICM experiences, Natasha Bradshaw, EUCC

Audience Q & A

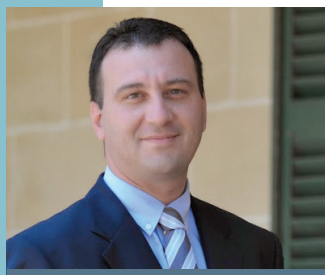
12.15 Panel Session & Closing Remarks

A panel of selected speakers will give brief concluding comments and the audience will be invited to intervene using sli.do and through discussion

- Chaired by Angela Schultz-Zehden
- Closing comments from DG Mare

13.15 COMPLIMENTARY LUNCH FOR ALL PARTICIPANTS

Interact with us during the conference on Twitter and sli.do: #MSPLandSea



JOHANN BUTTIGIEG

Johann Buttigieg is currently the Executive Chairman of the national regulatory agency responsible for planning and development.
He obtained his Bachelor in Planning (B.Plan) from the University of Malta and has been working at the Malta Environment and Planning Authority for the past 20 years. His various roles within the Authority included working within the Major Projects Team - overseeing major projects and working with the Enforcement Major Projects and Direct Action Unit. After 3 years as Chief Executive Officer, he was appointed as Executive Chairman of the new Planning Authority where he continues to be responsible for the implementation of the objectives of the Authority and for the overall supervision and control of the Directorates within the Authority. As Executive Chairman, together with the other directors, he ensures the development for the necessary strategies for the implementation of these objectives.

FELIX LEINEMANN

Felix Leinemann is Head of Unit for Blue Economy Sectors, Aquaculture and Maritime Spatial Planning at the EC Directorate General for Maritime Affairs and Fisheries. He has worked for the European Commission since 2003 in various fields including fisheries and maritime policy, shipping, aviation and urban transport, as well as the EU's global navigation satellite system Galileo. Between 2012 and 2014 he worked as Transport Counselor in the EU Delegation in Washington, DC. Before that, he was a member of the private office of European Commission Vice-President Siim Kallas, after having been Assistant to the Director General for Mobility and Transport since 2010. Mr Leinemann holds a PhD from the University of Freiburg, Germany, following law studies in Germany and Italy. Before joining the Commission, he worked as a lawyer and advocacy officer in Germany, France and Belgium.

ANGELA SCHULTZ-ZEHDEN

Angela Schultz-Zehden - (MBA, MSc European Studies, BSc Economics) is founder/manager of sustainable-projects, s.Pro GmbH – a company specialized in managing international projects in the field of Integrated Maritime Policy. Among others she is currently Lead Manager of the EU MSP Assistance Mechanism, a service financed by the EU Commission for EU Member States to share relevant knowledge and experiences on MSP to support the implementation of the MSP Directive (www.msp-platform.eu). Mrs. Schultz-Zehden has 20 years of experience in the field of integrated maritime policy. As senior manager of projects like PlanCoast, BaltSeaPlan and NorthSEE and as managing director of the SUBMARINER Network for Blue Growth EEIG, she has been at the forefront of developing the new policy fields and related key initiatives in MSP, blue growth as well as innovative uses of marine resources. For her work, Mrs. Schultz-Zehden has recently received the award "Woman of the Year in the Blue Economy 2016"

Sue Kidd is an academic and chartered town planner from the University of Liverpool's Department of Geography and Planning. Sue has acted as an advisor to the EU, government departments, government agencies, regional and local authorities and NGO's. She has a particular interest in integrated planning and much of her work has focussed on sustainable development in coastal and marine areas. She has been at the forefront of the theory and practice of Marine Spatial Planning and is currently engaged in a range of projects assisting the roll out of new marine planning and management arrangements in the Celtic Seas and wider European seas. Sue is a past chair of the UK's North West Coastal Forum, is currently part of the small team that acts as secretariat of the Irish Sea Maritime Forum and has recently taken up the role of Sea and Society lead for the new Liverpool Institute for Sustainable Coasts and Oceans.

SUE KIDD

Damien Périssé is the Director in charge of maritime affairs at the CPMR (Conference of Peripheral and Maritime Regions). The CPMR is a non-profit association bringing together some 160 Regions from 25 States from the European Union and beyond. It is structured at both European and sea-basin levels, with specific Geographical Commissions for the Baltic Sea, North Sea, Atlantic, Mediterranean Sea, Black Sea and for Islands. MSP and ICM are at the heart of the activities of the CPMR. In this area, land-sea interactions are an issue of specific interest for coastal regions and for the CPMR. The CPMR is currently working on this issue in the framework of the SIMNORAT and SIMWESTMED projects, co-funded by the EMFF and led by the SHOM. The CPMR is involved in several other initiatives at sea-basin level, including the Bologna Charter in the Mediterranean Sea. The CPMR has also been working bathymetric data via the Coastal Mapping project funded by the EMFF.

DAMIEN PÉRISSÉ

Francesco Musco is an architect and urban planner with a PhD in Analysis and Governance of Sustainable Development. Mr. Musco works as an Associate Professor in Urban and Environmental Planning at the Department of Design and Planning in Complex Environments, University Iuav of Venice. He is the Rector's Delegate for Research Activities at Iuav, Director of Master in Planning and policies for the City, Environment and Landscape (http://ppcel.org) and member of the PhD program in "Planning and public policies for the territory". Francesco collaborates with several public and private bodies to define environmental (including energy&climate) and local develoment policies. Mr. Musco is the Dean of the EU Erasmus Mundus Master on Maritime Spatial Planning, in collaboration with University of the Azores, University of Seville, Unesco (IOC) and Corila (www.seaplanning.eu). Mr. Musco is also the coordinator of several EU granted projects on climate adaptation and sustainability, such as ADRI-PLAN, CO-EVOLVE, SUPREME and SIMWESTMED.

FRANCESCO MUSCO

FRANK HERING

Frank Hering (MSc) is the Planning Director at the Regional Council of Kymenlaakso (Finland), where he works on topics such as regional planning, Maritime Spatial Planning, international cooperation, transportation planning and planning for sustainability. Before his appointment as Planning Director, Mr. Hering was the Head of Environmental Issues at the Regional Council. Mr. Hering also has extensive experience working as an environmental planner at the University of Helsinki, where he worked on environmental planning, education and species and habitat inventories. As a researcher, he also worked for the Southeast Finland Environmental Centre. Mr. Hering has a Masters degree in Landscape Ecology from the University of Muenster (Germany) / University of Helsinki (Finland).

KATHY BELPAEME

Kathy Belpaeme is head of the coastal department at the Province of West Flanders (Belgium). Ms. Belpaeme is responsible for the regional co-operation at the coast, in which a multidisciplinary and integrated approach is key. Before joining the province, Kathy was responsible for the coordination Centre for Integrated Coastal Zone Management for 12 years. This Centre was a collaboration between federal, Flemish and provincial authorities. Its tasks have been broadly taken over by the province in 2014.Co-operation between sectors and the different governmental levels continue to be central in Ms. Belpaeme's work. In addition, spatial planning is an important topic, and in particular the link between land and sea is essential at the coast. Ms. Belpaeme was appointed by the federal government to act as their ICM & LSI expert, and most recently she was involved in the process of developing a vision for the North Sea in 2050.

DR. HOLGER JANSSEN

Dr. Holger Janßen is the Senior Policy Advisor for the Ministry of Energy, Infrastructure and Digitalization Mecklenburg-Vorpommern in Germany, where he is the deputy head of General Affairs and Regional Planning. From 2005 to 2016, Dr. Janßen worked as a scientist at the Leibniz Institute for Baltic Sea Research where he led the Marine Planning group and acted as spokesman for the research focus Coastal Seas and Society. Dr. Janßen is a lecturer on Marine Spatial Planning at the Neubrandenburg University and President of the EUCC – The Coastal Union Germany (since 2010). He studied Spatial Planning at the Technische Universität Berlin, and received his Ph.D. in Geography from Kiel University.

Fátima Lopes Alves has a PhD in Sciences Applied to the Environment (University of Aveiro, Portugal). She is professor at the Department of Environment and Planning at the University of Aveiro and researcher at the Centre for Environmental and Marine Studies (CESAM). With more than 24 years of professional experience, her main fields of expertise are Integrated Coastal and Marine Planning and Management, Spatial Planning of Protected Areas, Strategic Planning, AIA/ SEA. She is participating/has participated in national (FCT; EEA Grants) and international research projects on ICZM, MSP and Environment and Socioeconomic Assessment. Some of these projects are TPEA: Transboundary Planning in the European Atlantic (DG MARE), AQUACROSS: Knowledge, Assessment, and Management for Aquatic Biodiversity and Ecosystem Services across EU policies (H2020).

FÁTIMA LOPES ALVES

Lenča Humerca Šolar (MSc) graduated in Geography (Environmental protection) and English Language and Literature in 1994 and received her Masters degree in Geography (Regional Planning) in 1999. She is employed at the Ministry of the Environment and Spatial Planning, Directorate for Spatial Planning in Slovenia, since 1994. Besides her regular work at the ministry, her most important professional experience has been achieved through being a member of different international and intersectoral working groups, responsible for the implementation of the MSP Direcitive and Alpine Convention and its protocols, and as a project partner in different international projects (Vision Planet, PolyDev, Adria A). Lenča Humerca Šolar gives lectures on different international and national (regional) occasions (congresses, workshops,…) and publishes articles from the main fields of her activities in different scientific publications.

LENČA HUMERCA ŠOLAR

Slavko Mezek is a Landscape Architect, graduated from the Department of Landscape Architecture/ Biotechnical faculty, University of Ljubljana. After his studies, he worked for the Urban Planning company in the fields of Spatial planning, Urban planning and Landscape design. In the nineties he was employed at the Ministry of the Environment, Spatial Planning and Energy. In this period, he lead various projects in the fields of Regional spatial planning, state detailed spatial plans and international projects related to coastal zone management. He has been working for the Regional Development Center in Koper as a senior programme manager since 2004 (fields: Regional development programming, project management of EU cross-border, interregional, transnational projects, MAP projects), Integrated Coastal Zone Management, Spatial planning and Maritime Spatial Planning. He lead the preparation of the Regional Development Programme for South Primorska region (for periods 2004-2006 and 2013-2020).

SLAVKO MEZEK

MARINA MARKOVIĆ

Marina Marković is the Programme Officer at the United Nations Environment Programme – Mediterranean Action Programme Priority Actions Programme – Regional Activities Centre. Ms. Marković was born in Croatia and has previous experience working with WWF Mediterranean, where she was the national co-ordinator of the project 'Tourism and Nature Conservation in the Mediterranean'. Ms. Marković has also worked for UNDP Croatia (project COAST), on activities in the coastal area related to biodiversity-friendly business development.

INGŪNA URTĀNE

Ingūna Urtāne - 50 % biologist and geographer by education and 50% spatial planner, Ingūna Urtāne started her career as a researcher at the Institute of Biology at the University of Latvia. She has gained extensive experience in spatial planning in the private sector, dealing mainly with municipal level plans and programs. Since 2007, Ms. Urtāne has worked as a civil servant at the Spatial planning department in the Ministry for Environmental Protection and Regional Development of Latvia. Recent projects she has worked on include Central Baltic Case coordinator for the Baltic Sea project Baltic SCOPE (completed in 2017), national Stakeholder in Interreg BalticLINES project (on-going), project leader for Coastal infrastructure development plan for Baltic Sea coast and Gulf of Riga, adopted by the government in 2016. She is also the project leader for the national maritime spatial plan (on-going).

LODEWIJK ABSPOEL

Lodewijk Abspoel - As senior policy advisor for the EU Integrated Maritime Policy, including Maritime Spatial Planning (MSP), I'm advocating the need to work on a common language in MSP. We're dealing with a wide variety of human activities at sea and their connections with humans on land (against the backdrop of the invaluable ecosystem). This forces us to listen, look, understand and learn. Ecologically sound is also business sound: the marine, coastal and ocean world, to my believe, shows us the way to a sustainable future. The future we want is Life below Water. I do not call IMP, MSP or Land-Sea Interactions complex, but acknowledge that (unintended) miscommunication is a risk for informed decision making. To minimize this risk, we need to endeavor in Land-Sea Investigation. Amongst others we're helping via the 21st century learning tool of the www.mspchallenge.info.

Margarita Stancheva (Ph.D. Oceanology) is a coastal/marine scientist at the Institute of Oceanology – Bulgarian Academy of Sciences (IO-BAS) with a special interest in coastal processes, sand beaches/dunes, coastal erosion and shoreline changes, and most recently in MSP and sustainable development. In 2010-2012 she coordinated two research projects in collaboration with the Institute of Ecology, Tallinn University and National Research and Development Institute for Marine Geology and Geoecology, Romania, focused on sand dunes preservation and coastline risk classification. She coordinated the EU funded Black Sea basin project SYMNET and is currently a coordinator for IO-BAS of MARSPLAN-BS. She is a convener of the Geomorphology Session at the EGU General Assembly: "Coastal zone geomorphologic interactions: natural versus human-induced driving factors" and Secretary of the Commission of Coastal Systems to the International Geographic Union.

MARGARITA STANCHEVA

Corine Lochet (Ph.D.), Chief engineer, works at SHOM, the French Hydrographic office. She has fifteen years experience in coastal management of a maritime region (Provence, PACA). Ms. Lochet is the Executive Secretary of the European Network of Hydrographic Offices of the International Hydrographic Organization (IHO). Her major experience is the organization of synergy to produce and mutualize marine data to implement coastal and maritime policies. Working closely with the European maritime regions (CPMR) and the hydrographic offices of the EU member states gives her the occasion to build the necessary links in the multilevel governance of the coastal and maritime data for the integrated vision of our coasts and seas.

CORINE LOCHET

Natascha Bradshaw has worked in coastal & marine governance for over twenty years. She is currently researching for a Doctorate at the University of the West of England (Bristol, UK) on participatory engagement mechanisms to support coastal governance. She has been engaged in European maritime policy evolution for most of her career, initially working as a practitioner on Integrated Coastal Zone Management (ICZM) projects and partnerships supporting the principles of the EC Recommendation on ICZM (2002) across Europe and the Black Sea. For WWF-UK, Natasha designed and advised the EC Life+ Celtic Seas Partnership project, promoting trans-boundary cooperation across 7 countries and managed the oceans governance programme including campaigning for the UK Marine Acts and establishing a WWF International Maritime Spatial Planning working group. Natasha is presenting to the EC MSP conference on Land-Sea Interactions on behalf of the Coastal & Marine Union (EUCC) for whom she is an Advisory Board Member.

NATASHA BRADSHAW

The Venue

Intercontinental Hotel
St. George's Bay
St. Julian's STJ 3310,
Malta

The Maritime Spatial Planning Conference Addressing Land-Sea Interactions will take place on Thursday 15 and Friday 16 June 2017 at the Intercontinental Hotel in St. Julian's, Malta.

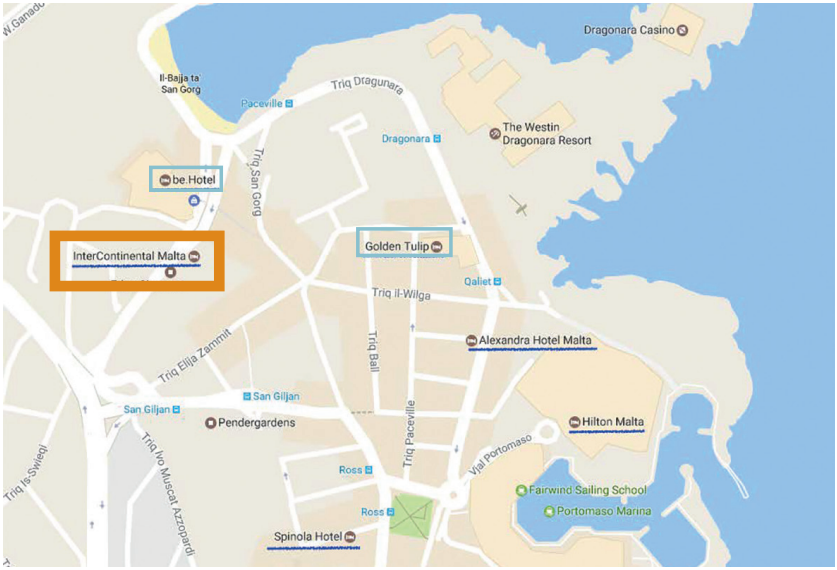
TO AND FROM THE VENUE

Public transport: The bus X2 is a direct line between the Intercontinental Hotel and the airport. The bus will take up to 1 hour. A ticket costs 2 EUR.
Taxi service: Taxis are available on the route between the Intercontinental Hotel and the airport. The price is around 20 EUR. There is also the option of pre-bookings through E-cabs, for which the price is around 15-18 EUR. The taxi drive will take between 20-30 minutes.
Further information: www.maltairport.com, www.maltataxi.net or http://ecabs.com.mt/ or https://www.publictransport.com.mt/

CATERING SERVICES

Participants will be provided with complimentary catering services during both days of the conference. This will include coffee breaks and a lunch on both days and an evening reception on the evening of 15 June.

Location



Logistical matters

FOR ALL QUESTIONS ON LOGISTICAL MATTERS, PLEASE CONTACT:

Ms. Lisa Simone de Grunt
Tel: 0049 151 668 959 87
Email: events@msp-platform.eu

We wish you a pleasant stay in Malta!

Welcome to Malta

The Republic of Malta is an archipelago in the Southern Mediterranean, some 80 kilometres south of Italy. It is a small and densely populated country with less than 450.000 inhabitants. The official languages of Malta are English and Maltese (a mix of English, Arabic, Italian and Sicilian). Malta has been a member of the European Union since 2004 and adopted the use of the Euro in 2008.
The capital of Malta is Valletta, a historical harbour city colloquially known as Il-Belt (‚the city'). Valletta is a UNESCO World Heritage site since 1980 and has many baroque buildings. In 2018, the city will be one of two European Capitals of Culture.

St. Julian's is a popular town just north of Valletta and is very popular during the summer months with both locals as well as foreign visitors. There are many bars and restaurants in St. Julian's, as it is known to be the entertainment area of Malta.

View of Valletta, Malta

View of Spinola Bay, Malta

WEATHER

Weather in June is warm, sunny and dry in Malta with an average temperature of 21 - 25 °C.

LOCAL CUSTOMS

Smoking is banned in enclosed public places, including public transport, restaurants and bars.

LANGUAGE

Maltese, English

CURRENCY

Euro

COUNTRY DIALLING CODE

++356

24 HOUR EMERGENCY CONTACT

112

European
MSP Platform

A service for Member States to share relevant knowledge and experiences on Maritime Spatial Planning

This conference is organised by the European MSP Platform on behalf of the European Commission Directorate-General for Maritime Affairs and Fisheries. The European MSP Platform is financed by the European Commission under the EMFF Workprogrammes 2014 and 2015. The European MSP Platform is a result of the action MSP Assistance Mechanism implemented by EASME on behalf of DG MARE.

Annex II Presentations summary

Contents

Introduction

The conference 'Maritime Spatial Planning – Addressing Land-Sea Interactions' took place over the course of two days at the Intercontinental Hotel in St. Julian's, Malta on 15 and 16 June 2017. This document outlines key points raised in the opening and closing sessions, together with summaries of the 15 presentations delivered during the four sessions.

The conference was opened by Angela Schultz-Zehden, Contract Lead Manager of the EU Commission funded European MSP Platform and Managing Director of s. Pro - sustainable projects GmbH.

Delegates were welcomed to the conference and the island of Malta by Michelle Borg on behalf of the Executive Chairman for Malta Planning Authority Johann Buttigieg. Ms. Borg explained how the islands of Malta provide good examples of both spatial and temporal land-sea interactions and stated that she hoped the conference would provide participants with ample opportunity to exchange experiences.

Figure 1. Opening Session, 15/06/2017

Felix Leinemann, Head of Unit for Blue Economy Sectors, Aquaculture and Maritime Spatial Planning at the Directorate General for Maritime Affairs and Fisheries (DG MARE), welcomed the delegates as host of the conference. Mr. Leinemann reminded the participants that MSP is the spatial pillar for the EU Integrated Maritime Policy, and that Member States are required to submit their maritime spatial plans by March 2021, in line with the MSP Directive (2014/89/EU)[1]. He noted that the Directive is gradually being implemented across the EU and that Member States are all at different stages of the implementation process. Mr. Leinemann pointed out that many different tools are available to Member States to assist them in achieving a proper inclusion of LSI in their maritime spatial plans, as this is one of the requirements set out in the MSP Directive. Such tools include the Member States expert group (MSEG) on MSP, transnational projects funded by the European Commission, as well as the European MSP Platform. All presentations given during the conference have been published on www.msp-platform.eu and can be downloaded via this link.

1 Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning

Plenary Session 1: Introduction to LSI | Chaired by Angela Schultz-Zehden

Sue Kidd – A general Land-Sea Interaction Framework

Sue Kidd, maritime spatial planner at the Department of Geography and Planning at the University of Liverpool and member of the European MSP Platform consortium, presented a conceptual framework to guide the discussions (see Figure 2). The framework demonstrates the dynamics of land-sea interactions and the options for institutional arrangement available to deal with such dynamics. A briefing paper explaining this framework was circulated to all participants and has been published on www.msp-platform.eu[2]. A map of river basin catchments, produced as part of the ESaTDOR[3] project, was used to clearly highlight how every area on land is connected to the sea, and that LSI should thus be considered beyond coastal zones.

Recently, interest in LSI has increased due to the need for its consideration in MSP, as stated in the EU MSP Directive 2014/89/EU (Article 6), through formal or informal processes such as ICM (Integrated Coastal Management, Article 7). Discussions on LSI are longstanding through primarily voluntary ICM initiatives, which are in place across European sea basins. There are differences between the new statutory planning policy and marine focused MSP approach, and the often landward-oriented, stakeholder-focused ICM initiatives providing new perspectives.

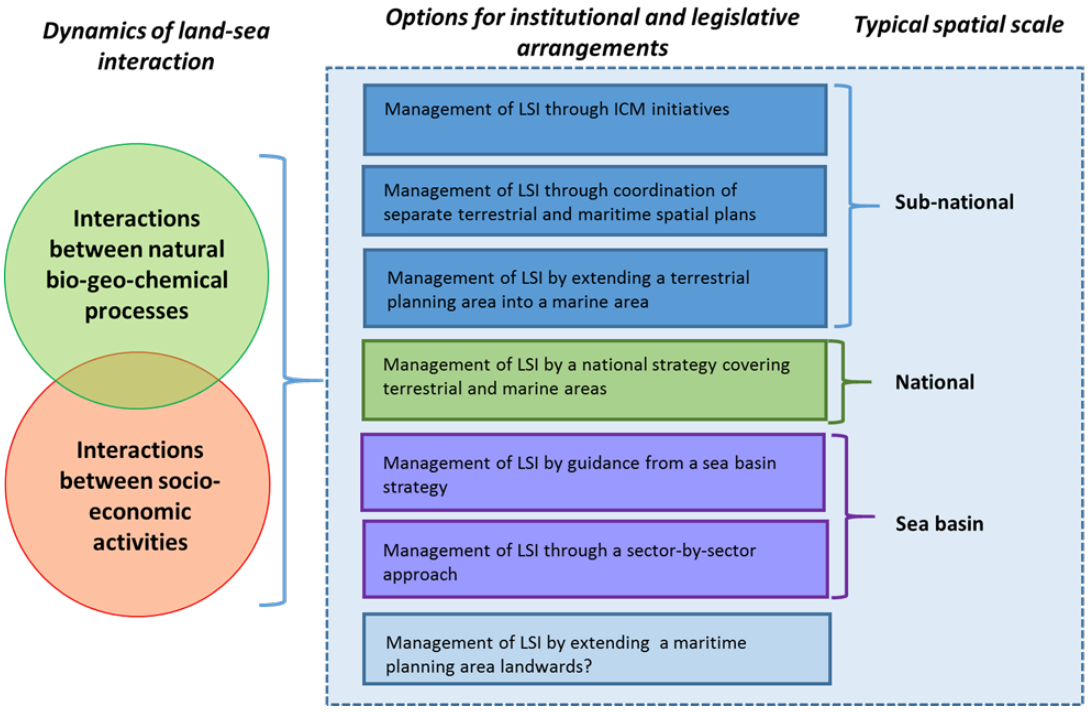


Figure 2. Conceptual Framework for LSI. Source: University of Liverpool, 2017

2 http://msp-platform.eu/sites/default/files/20170515_lsibriefingpaper_1.pdf
3 http://msp-platform.eu/projects/european-seas-and-territorial-development-opportunities-and-risks

Damien Périssé – Land-Sea Interactions

Damien Périsseé, Director of Maritime Affairs, introduced the Conference of Peripheral Maritime Regions[4], an association that includes more than 150 regional governments from all sea basins within Europe. Maritime issues are very important to the CPMR. LSI is being looked at in terms of implementation of the MSP Directive with reference to Articles 4, 6 & 7, but also Article 9, which includes a requirement for consulting with other relevant parties and stakeholders. The CPMR is developing a number of initiatives led by the Noord-Holland region of the Netherlands, including a study on regions and different directives (MSP, Marine Strategy Framework Directive, Water Framework Directive, Birds and Habitats Directives) that have an impact on the use of coastal and maritime space. The CPMR is also involved in projects including NorthSEE[5], SIMNORAT[6], SIMWESTMED[7], PANACeA[8] and CO-EVOLVE[9], as well as processes such as the Bologna Charter[10], described as a powerful cooperation process in the Mediterranean Sea.

Figure 3. Presentation by Damien Périssé, 15/06/2017

A key issue for the CPMR with regards to LSI in MSP is how to build synergies between MSP and regional development strategies. Regions can contribute to this, where they have powers in areas related to ICM and MSP, and can play an important role in facilitating discussions with stakeholders. Regions can also address LSI using the approach applied in Brittany, France, where regional authorities have been leading discussions with local fishermen. Additionally, an integrated vision on MSP, ICM and LSI is needed. Natural processes and human activities on sea and on land influence each other.

4 http://cpmr.org/
5 http://msp-platform.eu/projects/north-sea-perspective-shipping-energy-and-environment-aspects-msp
6 http://msp-platform.eu/projects/supporting-implementation-maritime-spatial-planning-north-atlantic-region
7 http://msp-platform.eu/projects/supporting-maritime-spatial-planning-western-mediterranean-region
8 http://msp-platform.eu/projects/panacea-streamlining-management-efforts-protected-areas-enhanced-protection
9 http://msp-platform.eu/projects/co-evolve-promoting-co-evolution-human-activities-and-natural-systems-development
10 http://msp-platform.eu/practices/bologna-charter-2012

Francesco Musco – Land & Sea Interaction in Spatial Planning

Francesco Musco, Professor of Urban and Environmental Planning at the University of Venice, Italy, provided a short introduction into LSI in MSP. Three topics were covered: elements for LSI within territorial and spatial planning; planning 'cultures' and scales in LSI and different planning tools; and suggestions and indications from a planners' perspective.

Northern and Southern Europe have different traditions when it comes to planning implementation and interactions between different levels of government. This can affect the capacity of MSP to be effective at local levels in different countries. Therefore, a solution that proved successful in Northern Europe cannot necessarily be translated to the Mediterranean, and vice versa. Furthermore, the scale of activities at different levels of planning needs to be taken into consideration.

Using a *transect planning approach* (TPA), traditionally used in environmental planning, can help with consideration for LSI. This approach focuses on particular hotspots; for example, where there are overlapping or increased intensity of uses. TPA can help identify particular spatial interactions and understand the potential to position different planning functions, which could be associated with either marine or terrestrial planning.

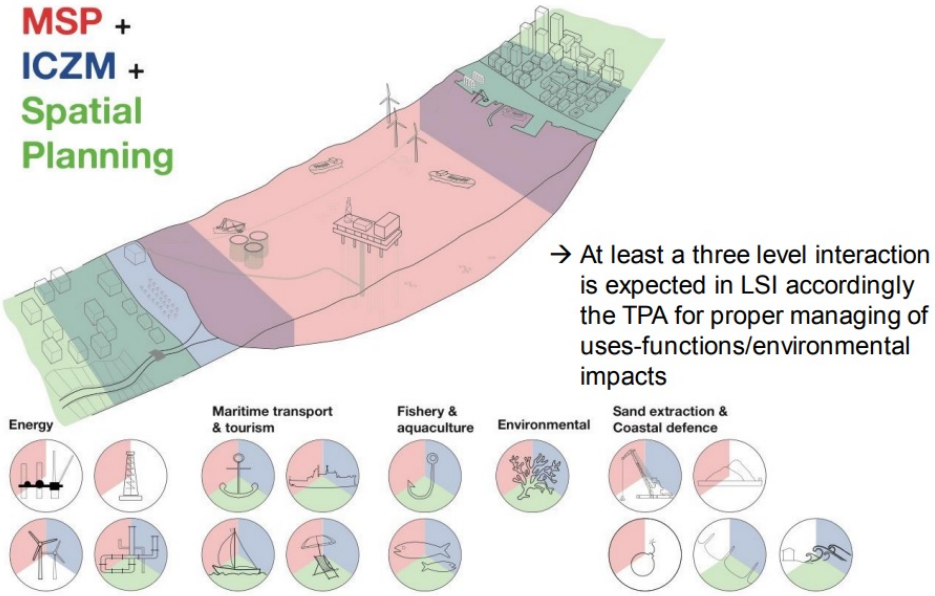


Figure 4. Diagram indicating the transect planning (TPA) approach for environmental planning. Source: Presentation by Francesco Musco, 15/06/2017

A good example is the Adriatic region, which is representative of many European regions in terms of a mixture of local legislative frameworks between countries. A path forward needs to be found to overcome the differences in legal systems between countries. Best practice examples in overcoming administrative borders to provide LSI in local planning can be seen in Norway and Puglia[11], Italy. Professor Musco explained that in order to properly consider LSI in MSP, an understanding of the often heterogeneous planning frameworks is required. A transect approach could provide a potential solution. In order to address these issues, waiting for a formal legislative framework which is applicable across the board is not an option; a way must be found to work within existing planning frameworks.

11 http://www.msp-platform.eu/practices/analysis-multiple-stressors-brindisi-area-through-dpsir-approach

Plenary Session 2: Sub-national approaches to LSI | Chaired by Felix Leinemann

Frank Hering, Planning Director of the Regional Council of Kymenlaakso, discussed the regional plan for the Kymenlaakso region of Finland[12]. In Finland, regional plans cover both land and sea areas, and therefore a strong planning tradition exists in territorial marine areas, which takes into consideration land-sea interactions. The regional plan for the Kymenlaakso region was approved by the Finnish Ministry for the Environment in 2014, prior to the adoption of the EU MSP directive 2014/89/EU. Therefore, predicting what the MSP directive would mean for the region was important when putting together the regional plan. In the future there will be regional plans covering the sea and land areas in addition to maritime spatial plans according to the MSP directive, which will both be managed by the same institutions, i.e. the regional councils.

Figure 5. Regional planning of territorial waters in Finland. Source: Presentation by Frank Hering, 15/06/2017

When starting the process of developing the pilot plan, newly available environmental data on the submarine geological and biological diversity was studied, in order to determine the blue-green infrastructure network. This allowed for the creation of maps of core areas for geological and biological diversity and also identified patterns and corridors. This is among other things, beneficial to ensure that for example salmon migratory paths are considered, which are of high importance for the protection of nature tourism more inland.

Transport and logistic planning issues are one of the most crucial topics. One of Finland's largest harbours is located within the region, along with a major railroad terminal located within the hinterland. These are part of the trans-European network; thus, it is important that transport issues are looked at in a holistic way, particularly when thinking about how to include inland stakeholders in MSP.

12 http://msp-platform.eu/practices/region-kymenlaakso-regional-land-use-plan-sea-msp-equivalent

Holger Janßen – Land-Sea Interaction in Mecklenburg-Vorpommern's recent State Development Programme

Holger Janßen is the Senior Policy Advisor for the Ministry of Energy, Infrastructure and Digitalisation for the Mecklenburg-Vorpommern region of Germany. Mecklenburg-Vorpommern has around 1,200 km of coastline and is located in the northeastern part of Germany. The region has a marine spatial plan, which forms part of a holistic plan for land and sea. Work started on the first marine spatial plan for the area in 2002 when the concept was very new. The Mecklenburg-Vorpommern plan came into force in 2005 and has subsequently been revised[13].

By looking at maps showing areas of activity intensity in marine areas and transport maps on land, one can see a focus towards port areas linking land and sea. When developing the marine spatial plan, the approach was taken to extend the terrestrial plan into the sea in order to create one holistic plan with a common legal framework. A process of screening land-sea interactions was undertaken in order to establish what kind of interactions were taking place, what data was available and who was responsible for managing them. As a result of this approach, most of the stipulations in the updated State Development Programme are regulations that deal with Land-Sea-Interactions (see Figure 6).

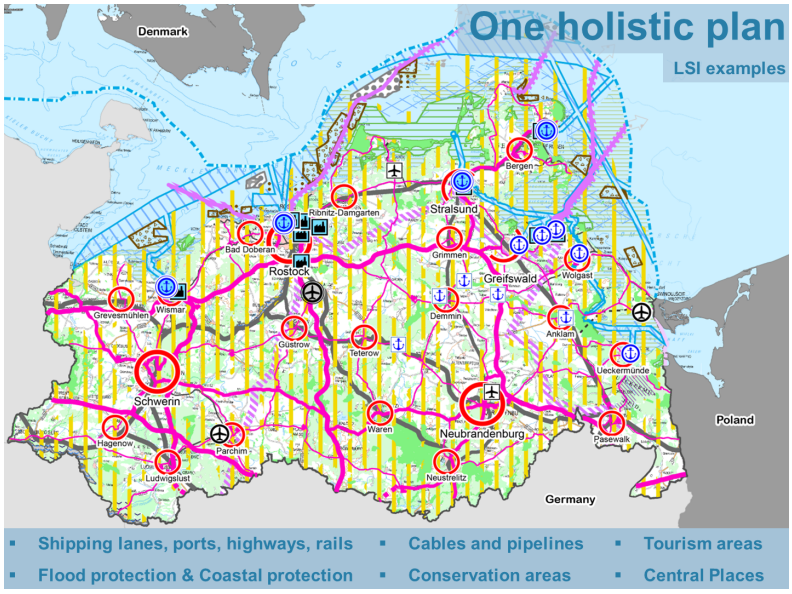


Figure 6. Elements of Land-Sea-Interaction in the State Development Programme of Mecklenburg-Vorpommern. Source: Presentation by Holger Janßen, 15/06/2017

Having a combined approach is something that is reflected in the participation process. In the Mecklenburg-Vorpommern example, a two-stage process combined formal and informal instruments. These resulted in the production of around 2,600 statements with over 1,000 issues raised relating to MSP. Upon examination, only around 630 could be solely classified as marine-related, highlighting the importance of having a wider perspective.

13 http://www.msp-platform.eu/practices/maritime-spatial-plan-territorial-sea-mecklenburg-vorpommern

Kathy Belpaeme – LSI within the Belgian MSP-ICM process

Kathy Belpaeme, working for the coastal department for West Flanders in Belgium, presented LSI within the Belgian MSP - ICM process, with a particular focus on the North Sea 2050 Vision process. During this visioning process, three working groups were established, with a focus on the ecosystem based approach; innovation; and multi-functional uses. Across these three working groups, six cross cutting themes were identified, including LSI, which was led by Ms. Belpaeme.

Figure 7. Presentation by Kathy Belpaeme, 15/06/2017

By working closely with stakeholders several key observations could be made:

- *Integration in the minds:* There was a tendency for people to focus only on the sea when talking about MSP, even with those experienced in the subject. The terrestrial side is often overlooked, but should be considered in MSP as well.
- *Integration in the maps*: When discussing MSP in Belgium, quite often the map that is used does not show the terrestrial side, including harbours, built-up areas, etc. Maps showing both the landward and seaward side of an area help to identify LSI. The same goes for data - if one is gathering data in the marine environment, they should do the same on land.
- There can be difficulties getting all parties to agree on what should be taken into account when considering LSI. Having someone guarding when it comes to defining the focus of LSI can help.
- Make sure all sectors are on board: the Belgian process involved stakeholders with an open invitation.
- Involve scientists: In order to get a solid basis for any plan, make sure scientists are involved from the outset and get them in the same room with other stakeholders, including policy makers.

Plenary Session 3: National and Sea-basin approaches to LSI | Chaired by Emiliano Ramieri

Fátima Lopes Alves – Portuguese experience with ICM

Fátima Lopes Alves is a professor at the Department of Environment and Planning at the University of Aviero, Portugal. Prof. Lopes Alves provided insight on ICM in Portugal. Legislation relating to land-sea interactions in Portugal has been in place since 1993 with legally binding, Coastal Zone Master Plans, which pre-dated the EU recommendation on ICZM. In 2003, the National Strategy for Coastal Zone Management was assumed. New legislation was put into place in 2006, which focused on the sea and blue growth, with the adoption of the National Sea Strategy[14].

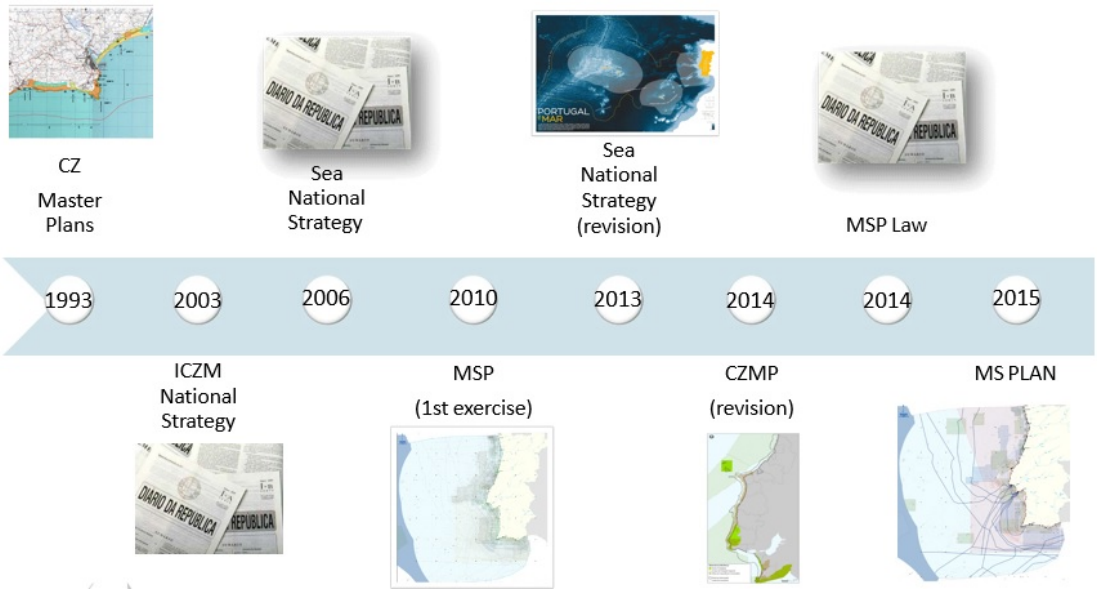


Figure 8. Timeline of major legislation affecting LSI in Portugal. Source: Presentation by Fátima Lopes Alves, 16/06/2017

In Portugal, concepts used within these planning processes such as transitional water, coastal zone, and coastal border, are assumed within legal frameworks, therefore removing any ambiguity. Definitions of limits are in place for both the Coastal Zone Master Plan and Maritime Spatial Planning, in terms of maritime and terrestrial protection zones, which are again assumed within a legal framework. In addition, different scales of work are included in the Coastal Management Plan in order to take into account the differences between challenges and opportunities in different areas. The operational scales of work include the Coastal Zone National Strategy (containing five strategic plans covering the whole mainland); Coastal Management Plans on a regional scale; and coastal zone management beach plans on a scale for bathing areas. The scope of Integrated Coastal Management in Portugal includes the following areas: i) Transitional waters; ii) Coastal Waters; iii) Bathing Areas; iv) Tourism development; v) Climate Change; and vi) Natural capital.

14 www.msp-platform.eu/practices/national-ocean-strategy-2013-2020

Lenča Humerca Šolar & Slavko Mezek – LSI approach in Slovenia

Lenča Humerca Šolar of the Ministry of Environment and Spatial Planning, Directorate for Spatial Planning in Slovenia and Slavko Mezek, Senior Programme Manager with the Regional Development Centre of Koper, presented the approach to LSI in Slovenia. Every coastal Member State in the EU is responsible for applying the MSP Directive; therefore, an integrated structure for the management of the sea and coast has to be prepared along with a national maritime spatial plan and a procedure for its implementation. The process of implementation has already begun in Slovenia and existing legislation is being revised with the amendment of existing laws to provide greater support for MSP. The Spatial Development Strategy of Slovenia is currently under revision and will place a greater emphasis on maritime issues for the long term (up to 2050) and action points (up to 2030) of the strategy. The shaping of the MSP process is underway, with approval sought from scientific bodies. Slovenia's Spatial Development Strategy already contains some maritime elements, which will be expanded upon in the revised strategy, which is expected to be released before the end of 2017.

MSP in Slovenia is influenced by the country's short coastline, and the numerous activities that take place in the small area. There is no tradition of MSP and jurisdiction is divided between the national level and local municipalities. MSP will provide an inter-sectoral and cross-border reconciled sea use plan with a criteria framework for future projects, that also tackles land spatial development. Slovenia has been involved in a number of transboundary MSP projects, including PLANCOAST[15] and SHAPE[16]. Scoping and SWOT analyses identified a number of issues on sea and land for several case studies, which were used to produce an integrated map. Proposals were adopted in municipal plans.

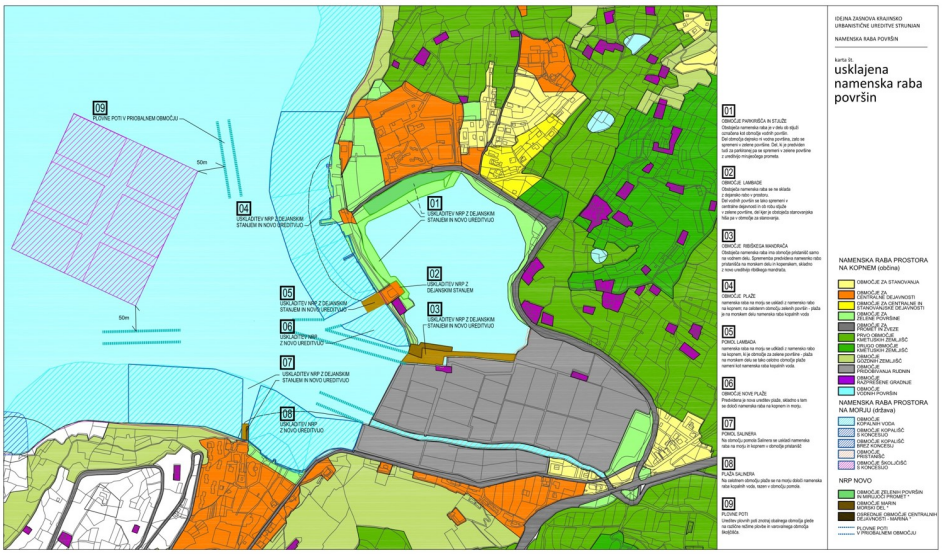


Figure 9. Proposed Maritime and Coastal Plan Slovenia. Source: Presentation by Lenča Humerca Šolar & Slavko Mezek, 16/06/2017

15 http://msp-platform.eu/projects/tools-and-capacities-effective-integrated-planning-coastal-zones-and-maritime-areas

16 http://msp-platform.eu/projects/shaping-holistic-approach-protect-adriatic-environment-between-coast-and-sea

Marina Markovic – LSI in ICZM Projects

Marina Markovic is the Programme Officer for the UNEP Mediterranean Action Plan Priority Actions Programme / Regional Activities Centre[17] based in Split, Croatia. The legal framework of work undertaken by the PAP / RAC is the Barcelona Convention and its protocols, with the ICZM protocol being the most relevant. Within the ICZM Protocol, the coastal zone includes both land and marine areas, so for the past 40 years countries in the Mediterranean have in fact been working on LSI. When considering LSI in ICZM, it is important to consider a broad picture examining the drivers, pressures and impacts all the way from source to the sea and vice versa.

A number of different projects are currently undertaken across the Mediterranean. In Croatia, preparations began in 2012 for a marine strategy based on MSFD requirements. The boundaries for the proposed Maritime Plan for Croatia started from the coastline and extended beyond the limits of the territorial sea, including ecological and fisheries zones. An ICZM Strategy was also required, which would cover the terrestrial zone to the limit of the territorial sea. It was decided to create one single integrated strategy covering both maritime and coastal areas, meaning that all areas included in both the maritime and ICZM plans were covered.

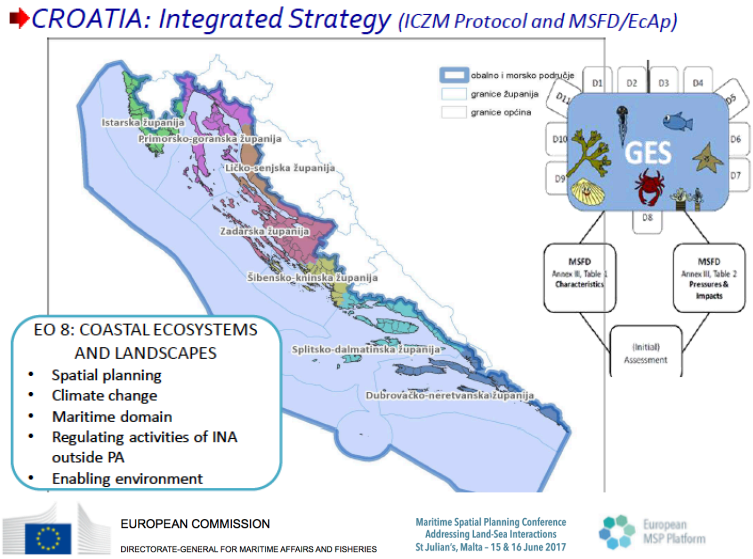


Figure 10. Integrated Strategy for Croatia. Source: Presentation by Marina Markovic, 16/06/2017

One of the most recent projects in Italy has a specific focus to identify LSI in different regions by creating matrices to assist in this identification process. The techniques used in this project will be further developed as part of the SUPREME[18] and SIMWESTMED[19] projects.

Two policy documents are currently being prepared to define the future steps for the Barcelona Convention communities towards MSP and LSI, which are key components for achieving GES and sustainable development of coastal zones.

17 http://www.pap-thecoastcentre.org/
18 http://www.msp-platform.eu/projects/supreme-supporting-maritime-spatial-planning-eastern-mediterranean
19 http://msp-platform.eu/projects/supporting-maritime-spatial-planning-western-mediterranean-region

Ingūna Urtāne – Outcomes of the BALTICSCOPE project with considerations of the Land-Sea Interactions

Ingūna Urtāne, Director of the Spatial Planning Department at the Ministry for Environmental Protection and Regional Development of Latvia and project leader for the national maritime spatial plan, summarised the outcomes of the Baltic SCOPE project[20]. The Baltic Sea Region has much experience with transboundary cooperation within the frame of spatial development planning and the Baltic Marine Environment Protection Commission (HELCOM). This has resulted in a Baltic Sea Action Plan for environmental protection and the VASAB Long-term Vision for the Baltic Sea Region, along with several guidance documents for transboundary cooperation. The guidelines produced by the HELCOM-VASAB MSP working group[21] on transboundary consultations, public participation and cooperation helped define the framework for the Baltic SCOPE project, which uses a stakeholder approach as the basis for cooperation.

The BalticSCOPE project focused on the energy, fisheries and shipping sectors, as well as the environment. All countries had already initiated their MSP processes, which served as the background for transboundary cooperation. Stakeholder mapping was undertaken to identify key actors. The project produced a number of recommendations; such as identifying the need for joint planning criteria for certain sectors; the importance of a transboundary perspective in planning; the sharing of harmonised data; and the need for a permanent platform such as the HELCOM-VASAB working group to assist the implementation of future projects.

Figure 11. Recommendations from BalticSCOPE. Source: Presentation by Ingūna Urtāne, 16/06/2017

Baltic Sea countries often have very different legislation: in some cases, the responsibility for the implementation of MSP is carried out on a local level, whereas in other countries this is done on the national level. Some Baltic countries have separate marine and terrestrial planning, whilst others have more integrated plans. The project also found that often items that were identified as being of greatest concern to national or regional level stakeholders were very different to those operating at a local or municipal level. This can create barriers when trying to implement MSP. The second major conclusion of the project was that green networks need to be dealt with in a holistic way.

20 http://msp-platform.eu/projects/towards-coherence-and-cross-border-solutions-baltic-maritime-spatial-plans
21 http://msp-platform.eu/practices/institutional-set-helcom-vasab-msp-working-group

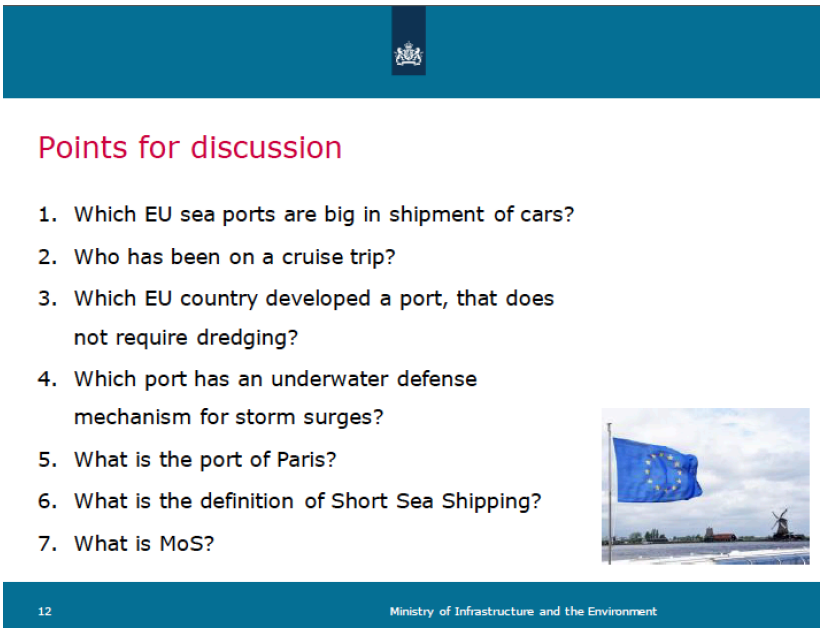
Plenary Session 4: Sectoral approaches to LSI and specific tools | Chaired by Juan Ronco Zapatero

Lodewijk Abspoel – Ports: a gateway for understanding Land-Sea Interactions

Lodewijk Abspoel is a senior policy advisor for the Ministry of Infrastructure and Environment of the Netherlands and deals directly with MSP. Mr. Abspoel gave a presentation using ports as a key example for explaining the importance of land-sea interactions. He posed the question: should land-sea interactions not rather be considered land-sea *investigations*?

Ports can be classified in a number of ways, such as marinas or harbours, but they have similarities and also differences. The importance of ports impacts not only coastal areas, but also major manufacturing hubs, such as the engineering industry in the South of Germany. In addition, changes in the shipping sector imply the necessity of adaptations made in inland waterways of Europe, such as to bridges. A number of examples from the Netherlands were presented, including the port of Amsterdam, which demonstrates the economic importance of shipping and that freight is the cheapest way of transport, following the principles of *just-in-time management*.

Land-sea interactions stretch across the globe and ports are connected across continents, from a socio-economic as well as from an environmental perspective. Mr. Abspoel also mentioned that much of the energy from offshore renewables is used by industry rather than households, and how it reaches these factories has to do with land-sea interactions as well, raising questions such as whether industries should be relocated closer to shore.



Part of the presentation also included information on the issues posed by *super yachts*, which are designed for the maritime environment, but built and transported from further inland, as well as on rural areas that could get an economic impulse from the creation of new ports or harbours.

Mr. Abspoel engaged the participants with a captivating presentation and several key discussion points, including a question on the definition of Short Sea Shipping and the meaning of Motorways of the Seas.

Figure 12. Discussion points on ports and LSI. Source: Presentation by Lodewijk Abspoel, 16/06/2017

Margarita Stancheva – Burgas Case Study: Land-Sea Interactions

Margarita Stancheva is a coastal / marine scientist at the Bulgarian Academy of Sciences – Institute of Oceanology (IO-BAS). She has worked on a number of projects including the DG MARE funded MARSPLAN project[22] which addresses cross-border maritime spatial planning in the Black Sea region (Bulgaria and Romania). A diverse range of partners are involved in the project including ministries of regional development, maritime administrations, ports and research institutes.

As one of the five pilot case study areas in the project, the city of Burgas is the fourth largest in Bulgaria and one of the largest ports on the coast of the Black Sea. It is a leading industrial centre and experiencing rapid development, and is surrounded by many ecologically important areas including Natura 2000 sites and wetlands. The current challenge in the area is the need to sustain economic development whilst protecting biodiversity and effective use of natural resources.

The approach set in the MSP Directive was applied to follow the LSI and to identify the impact of land infrastructure on wetlands and maritime space. It was challenging to find out about the conflicts between different sectors and uses (both terrestrial and marine) and to identify key stakeholders. A number of analytical techniques were used to create a matrix of land-sea synergies and conflicts. The complex nature of land-sea interactions is currently managed by existing legislation, but dedicated maritime spatial plans are required. A draft for amending the law for managing maritime space, inland waters and coastal areas has been prepared at the expert level covering the legislative transposition of the MSP Directive which is awaiting political decision. Both human resources and data for MSP at municipal and national level are still insufficient. These are vital for any MSP and identifying land-sea interactions. GIS, mapping and visual interpretations have proven to be the best way to obtain decision support of the MSP approach. Research for LSI in both marine and terrestrial environments is costly in nature and should be provided by the competent authority for MSP.

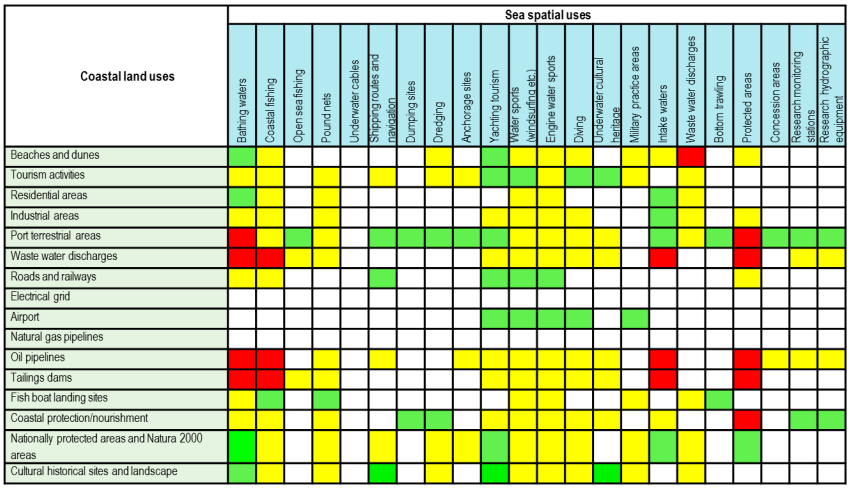


Figure 13. Matrix of land-sea synergies and conflicts in the Burgas Region. Source: Presentation by Margarita Stancheva, 16/06/2017

22 http://msp-platform.eu/projects/cross-border-maritime-spatial-planning-black-sea

Corine Lochet – Coastal Data for Integrated Maritime Policies

Corine Lochet is a Chief Engineer at the French Hydrographic Office (SHOM) with experience in the organization and synergy of marine data to implement coastal and maritime policy. Whilst data is readily available in the terrestrial environment, this is often harder to come by in the marine part of the coastal zone.

In maritime spatial planning, a variety of different data is required, such as data to manage flood risks, marine archaeology, safe maritime navigation and cables. Ecosystems can often overlap jurisdictional borders and a transnational approach to data collection is important to effectively manage these areas.

Figure 14. Presentation by Corine Lochet, 16/06/2017

SIMCelt[23] is a transnational project funded by DG MARE to assist in the delivery of the MSP Directive. One of the project deliverables is to assess and identify gaps in data within the Celtic Seas. The examination of data can often be complex due to the difficulty in gathering the data or the quantity of data involved for a simulation and the range of expertise required to analyse it. In other instances, a simple "image" (WMS-WFS feeds) can be enough to highlight the same issue to different stakeholders. Part of the Data was obtained from the EMODnet[24] data portal, funded by DG MARE, which collates data from around Europe and promotes the homogeny of the data output from Member States. This consistency in data collection and formatting is assisting MSP. Information that cannot be provided by EMODNet, such as data concerning energy and cultural heritage, must sometimes be derived from other national or local sources, but this is not always easy to find and not always freely available. Three axes have been proposed by the Coastal Mapping Partnership to fill the gaps with a European Strategy to obtaining high-resolution coastal bathymetric data and a land-sea interaction data for coastal management

1) Set up coordinated programmes for data acquisition at maritime basin scale;
2) Increase the opportunities for bathymetric data acquisition in the framework of the EU operational programmes and funds; and
3) Promote the production of bathymetric data from multiple sources, usable by different categories of coastal users for maritime policies.

23 http://msp-platform.eu/projects/supporting-implementation-maritime-spatial-planning-celtic-seas
24 http://www.emodnet.eu/

Natasha Bradshaw - Participatory engagement in MSP: lessons from Integrated Coastal Management

Natasha Bradshaw is an Advisory Board Member for the Coastal and Marine Union (EUCC). Ms. Bradshaw's presentation focused on the coastal zone as the main interface between land and sea, and she encouraged participants to think about the communities who reside there. Coastal regions are the most densely populated and therefore present the biggest challenge to sustainability. Coastal regions also contain some of the world's most fragile ecosystems.

The MSP Directive, which includes land-sea interactions, shows that progress is being made to encourage sustainability in coastal regions. Collectively, there exists 20 or 30 years of experience in planning at the coast. There has been some evidence seen over the past few days which demonstrates that integrated plans that extend outward from the land into marine areas, may be more effective at managing land-sea interactions than separate maritime and terrestrial spatial plans. One of the main strengths of Integrated Coastal (Zone) Management (ICM) is the ability to engage people; however, it is important to make the distinction between stakeholder engagement and public participation. It is important to consider the extent to which you are really engaging people as highlighted by Figure 15.

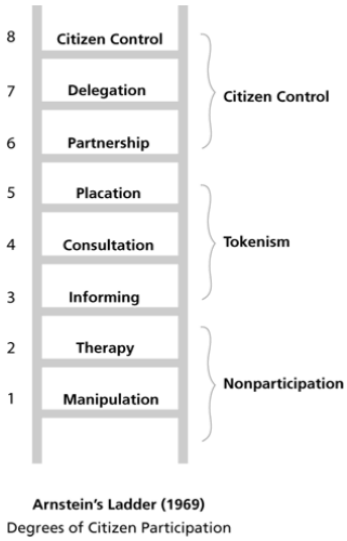


Figure 15. Armstein's Ladder. Source: Armstein, Sherry R. "A Ladder of Citizen Participation, "JAIP, Vol. 35, No. 4, July 1969, pp. 216-224 (above)

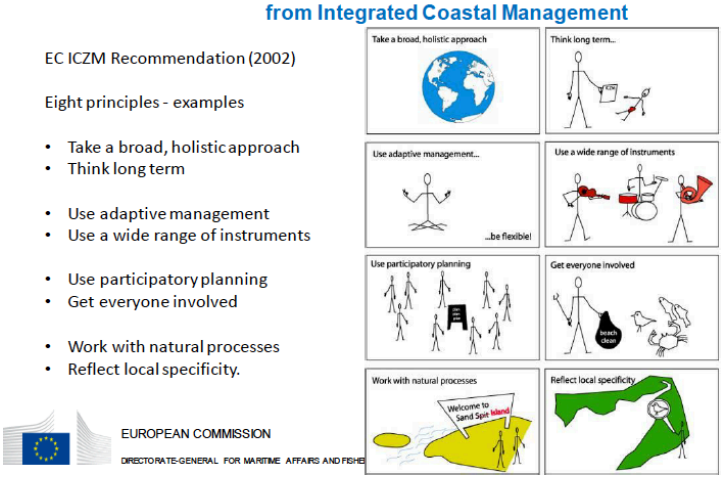


Figure 16. Principles of participatory engagement in MSP. Source: Presentation by Natasha Bradshaw, 16/06/2017 (left)

Examples of where these principles have been put into practice can be seen in a number of local ICM projects and partnerships and also in larger projects within Europe's regional seas, such as the Celtic Seas Partnership[25].

25 http://msp-platform.eu/projects/celtic-seas-partnership

Heidi Roberts – LSI Toolbox

Heidi Roberts, Head of Coastal and Marine Processes at ABPMer, presented the LSI toolbox concept which is currently being developed as a mechanism to integrate land-sea interactions into MSP and other strategic environmental assessments. The project aims to provide a practical toolbox for LSI practitioners, which can be easily applied within any administrative or governance arrangement and will be underpinned by the principles of integrated coastal management (ICM).

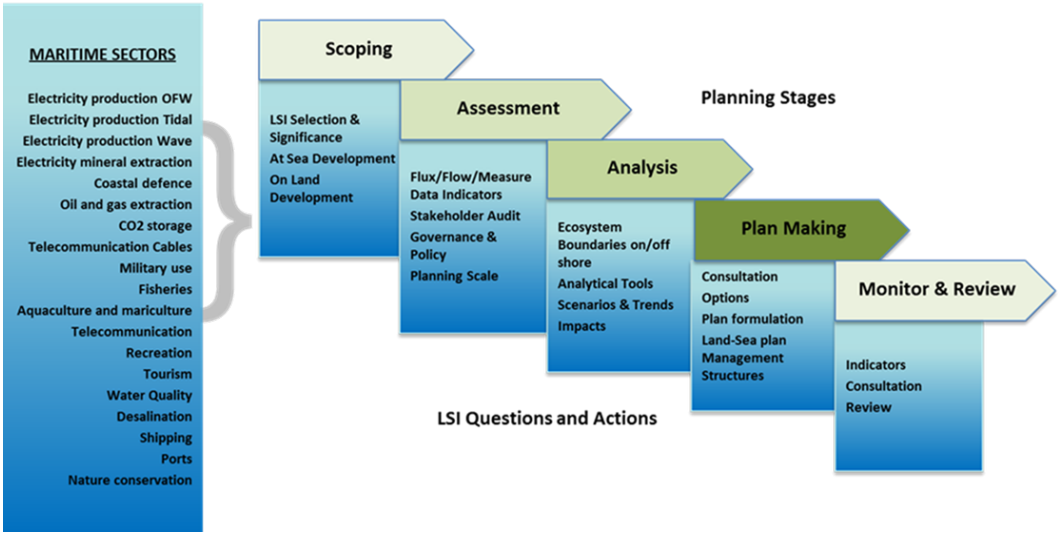


Figure 17: Planning stages of development of the LSI toolbox. Source: Presentation by Heidi Roberts, 16/06/2017

The toolbox will provide a library of real and conceptual case studies and will allow users to search through different topics and land-sea interactions. The toolbox will be presented via a website which will provide a knowledge sharing platform, whilst the case study matrices allow for the application to be tailored to individual requirements.

Once both the website and toolbox matrices have been developed, the toolbox will be presented to stakeholders, a period of testing will begin and feedback will be obtained. The functionality of the toolbox will be optimised following confirmation of its performance. The toolbox will be developed as part of a contract to provide administrative and technical support to the European Commission in its work on ICM and MSP in the Member States, as well as consider how an integrated approach might support the implementation of the MSFD and other relevant environmental policies.

Closing Remarks

The conference was closed by a panel discussion, which included Angela Schultz-Zehden, Felix Leinemann, Francesco Musco and Sue Kidd. Ms. Schultz-Zehden summarized how throughout the course of the conference, different LSI issues had been identified, along with mechanisms to manage them and even tools to assist in this. She noted that whilst it was important to identify good practices going forward, it is equally important to identify where gaps in knowledge still exist.

Ms. Kidd reflected on how the LSI framework outlined in the briefing paper provided an interesting guide for the discussions that took place over the two days. One key message that has become evident is the diverse range of issues and approaches that are evolving. There is also a variety of experience, reflecting that there can be no 'one-size-fits all' approach to tackle LSI in MSP.

Francesco Musco noted a number of key points that should be considered when addressing LSI in MSP. Firstly, with regards to strategic level planning (including sea basin level strategies); these provide the basic level frameworks under which all other levels operate. In most cases, these are implemented at a regional or municipal scale, which do not necessarily operate on a day-to-day basis on a strategic level, and this can create a gap in terms of their capacity to implement MSP. Secondly, Integrated Coastal Management is a voluntary tool that is implemented in different ways across Europe. In addition, with regards to the knowledge available to support planning at all scales, there is a need to increase the amount of for instance geographical and environmental data available to assist MSP. Lastly, in reference to best practice techniques, it is important to note that whilst these may have been effective, they are not necessarily geographically transferrable.

Felix Leinemann closed the conference with some concluding remarks. Although maritime spatial planning is often carried out at the local level, there is also a need to sometimes look at things on a larger scale, as was the purpose with the MSP Directive. Over the past two days, several examples were highlighted where planning on a larger scale was possible and even successful. While European funding for projects can provide a possibility for this work to continue, this is not a sustainable mechanism in the long term. HELCOM-VASAB is an example of how Member States can work together without the need for direct input from the European Commission, and it can be seen as an example for other sea basins. Mr. Leinemann concluded that in addition to identifying some of the more general issues associated with LSI, he expressed the hope that more specific issues had also been identified during the interactive sessions, which could be the focus of future workshops and the continued work facilitated by the European MSP Platform.

Annex III List of participants

NAME	LAST NAME	AFFILIATION
Dania	Abdul Malak	University of Malaga (Spain)
Andrej	Abramic	EcoAqua/Las Palmas University (Spain)
Lodewijk	Abspoel	Ministry of Infrastructure and Environment (Netherlands)
Maher	Al-Quhali	University of IUAV (Italy)
Laura	Alexandrov	NIMRD (Romania)
Susanne	Altvater	s.Pro (Germany)
Fatima	Alves	Aveiro University (Portugal)
Julie-Ann	Auerbach	Environment and Resources Authority (Malta)
Niccolò	Bassan	University of IUAV (Italy)
Kathy	Belpaeme	Flanders Province (Belgium)
Joseph	Bianco	Ports and Yachting Directorate, Transport Malta
Michelle	Borg	Malta Planning Authority
Greta	Borg	EASME
Natasha	Bradshaw	EUCC
Matteo	Braida	Sogesid (Italy)
Pierpaolo	Campostrini	CORILA (Italy)
Brian	Christie	Environment and Resources Authority (Malta)
Suzanne	Dael	Danish Maritime Authority
Lisa Simone	de Grunt	s.Pro (Germany)
Anja	Detant	EASME
Ann	Dom	Seas at Risk
Karin	Dubsky	Coastwatch Europe
Özhan	Erdal	Mediterranean Coastal Foundation (MEDCOAST)
Rhona	Fairgrieve	Scottish Coastal Forum
Michelle	Formosa	Malta Marittima Agency
Elena	García	Autonomous University Barcelona
Maria	Georgieva	Ministry of Regional Development and Public Works (Bulgaria)
Barbara	Giuponi	CORILA (Italy)
María	Gómez-Ballesteros	Spanish Institute of Oceanography
Sonsoles	Gonzalez-Gil	Spanish Institute of Oceanography
Dirk	Gotzmann	CIVILSCAPE (Germany)
Henriette	Grimmel	University of Sevilla (Spain)
Frank	Hering	Kymenlaakso Region (Finland)
Lenca	Humerca Solar	Ministry of the Environment and Spatial Planning (Slovenia)
Julia	Hunt	Welsh Government

Alberto	Innocenti	University IUAV of Venice (Italy)
Stephane	Isoard	European Environment Agency
Holger	Janßen	Ministerium für Energie, Infrastruktur und Digitalisierung Mecklenburg-Vorpommern (Germany)
Hannah	Jones	University of Liverpool
Katerina	Kanellopoulou	Hellenic Ministry of Environment & Energy
Katerina	Karditsa	National & Kapodistrian University of Athens (Greece)
Xander	Keijser	Rijkswaterstaat (Netherlands)
Sue	Kidd	University of Liverpool (UK)
Marija	Lazic	Maritime Institute in Gdansk (Poland)
Felix	Leinemann	DG MARE
Camino	Liquete	DG ENV
Corine	Lochet	SHOM (France)
Ivana	Lukic	s.Pro (Germany)
Denis	Maragno	University of IUAV, Venice (Italy)
Marina	Markovic	UNEP MAP PAP RAC
Vesna	Marohnić Kuzmanović	Croatian Institute for Spatial Development
Márcia	Marques	CESAM & University of Aveiro (Portugal)
Razvan	Mateescu	NIMRD (Romania)
Slavko	Mezek	Regional development centre Koper (Slovenia)
Francesco	Musco	University of IUAV, Venice (Italy)
Caitriona	Nic Aonghusa	Marine Institute (Ireland)
Daniel	Nigohosyan	Ecorys
Alda	Nikodemusa	VASAB Secretariat
Maria	Pafi	Queen's University Belfast
Theodora	Paramana	National & Kapodistrian University of Athens (Greece)
Damien	Périssé	CPMR
Stelios	Petrakis	National & Kapodistrian University of Athens
Giulietta	Rak	ISPRA - Italian National Institute for Environmental Protection and Research
Maria	Rampavila	Hellenic Ministry of Environment and Energy
Yves-Henri	Renhas	Secrétariat général de la mer (France)
Heidi	Roberts	ABP MER
Juan	Ronco Zapatero	DG MARE
Eva	Rosenhall	Swedish Agency for Marine and Water Management
Md Nazmus	Sakib	University IUAV of Venice (Italy)
Joseph	Scalpello	Malta Planning Authority
Laura	Scarpelli	Rete Autostrade Mediterranee Spa (Italy)
Jan	Schmidtbauer Crona	Swedish Agency for Marine and Water Management
Angela	Schultz-Zehden	s.Pro (Germany)

Hristo	Stanchev	Institute of Oceanology - Bulgarian Academy of Sciences
Margarita	Stancheva	IOBAS (Bulgaria)
Wim	Stooker	Province of Noord-Holland (Netherlands)
Asdis Hlokk	Theodorsdottir	National Planning Agency (Iceland)
Tiina	Tihlman	Ministry of the Environment (Finland)
Kai	Truempler	Federal Maritime and Hydrographic Agency (Germany)
Inguna	Urtane	Ministry of Environmental protection and regional development (Latvia)
Steven	Vandenborre	Belgian (federal) DG Environment
Diletta	Zonta	Ecorys

Annex IV Conference briefing paper

Please find on the next pages, the briefing paper that was developed for the Maritime Spatial Planning Conference: Addressing Land-Sea Interactions, that took place in St. Julian's, Malta on 15 and 16 June 2017.

EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

Maritime Spatial Planning: Addressing Land-Sea Interaction A briefing paper

This document was developed by the European MSP Platform for the European Commission Directorate General for Maritime Affairs and Fisheries.

European MSP Platform

Contents

This document was developed by the European MSP Platform for the European Commission Directorate General for Maritime Affairs and Fisheries.

European MSP Platform

1. Introduction

Many maritime uses have an onshore component or implication, such as the ports need for shipping, or grid connections needed for offshore wind arrays. Similarly, many terrestrial activities and development, especially in coastal areas, also impact on the sea, such as waste water discharge from urban areas. Natural processes also involve interaction between land and sea, such as coastal accretion and erosion being caused by currents and weather events. Human activities and natural processes can therefore interact with each other in complex ways along the land-sea interface.

When carrying out maritime spatial planning (MSP), it is important to consider the dynamics between land and sea, and to ensure that spatial planning is conducted in an integrated manner across maritime and terrestrial areas. This is in the interests of both environmental protection of coastal areas and the effective development of maritime and coastal economies. It is a requirement of the 'MSP Directive' to take land-sea interactions into account when preparing maritime spatial plans

There are a number of possible ways of addressing land-sea interaction (LSI) in MSP. These include building on the experience of integrated coastal management (ICM), harmonising terrestrial and maritime spatial plans, and carrying out spatial planning at a scale that crosses the land-sea border. Where practice has already developed within Member States, different approaches are being taken, reflecting those nations' geographies and institutional and planning frameworks. Other Member States are now considering how best to deal with LSI in their MSP processes. All Member States could benefit from understanding the options that are available and considering how to develop their practice further.

2. LSI in the MSP Directive

Art 6 para 2(a) sets out as one of the minimum requirements of MSP that LSI should be taken into account (also Art 4 paras 2 and 5).

Art 7 para 1 states that Member States may achieve this through the MSP process itself or by other formal or informal processes, such as ICM (in which case, the outcome must be reflected in the maritime spatial plans). In this context, para 2 states that MSP should aim to promote coherence with other relevant processes.

LSI is also referred to elsewhere:

'Maritime spatial planning… should take into account land-sea interactions and promote cooperation among Member States' (recital 9).

'Marine and coastal activities are often closely interrelated. In order to promote the sustainable use of maritime space, maritime spatial planning should take into account land-sea interactions. For this reason, maritime spatial planning can play a very useful role in determining orientations related to sustainable and integrated management of human activities at sea, preservation of the living environment, the fragility of coastal ecosystems, erosion and social and economic factors. Maritime

This document was developed by the European MSP Platform for the European Commission Directorate General for Maritime Affairs and Fisheries.

European MSP Platform

spatial planning should aim to integrate the maritime dimension of some coastal uses or activities and their impacts and ultimately allow an integrated and strategic vision' (recital 16).

3. ICM and MSP

ICM (also referred to as integrated coastal zone management) is a longer-standing practice than MSP. It is also concerned with spatial management, but there are differences of emphasis between it and MSP.

ICM generally focuses on collaboration between, for example, civil society, businesses and government, and may result in strategies and management plans, but does not usually lead to the allocation of space to particular activities in the way that MSP may. ICM tends to include land based activities, areas and bodies, whereas MSP does not extend its remit further inland than the high-water mark. Also, ICM is, in most contexts, a voluntary practice, rather than a statutory requirement, in contrast to MSP in the EU.

In the EU, the uptake of ICM by Member States is encouraged through a Communication[1] and Recommendation[2], where it is defined as a dynamic, multi-disciplinary and iterative process to promote the sustainable management of coastal zones. The need for informed participation and co-operation of all stakeholders is stressed. However, practice varies considerably according to local conditions.

Importantly, for the Mediterranean, a common binding framework for ICM has been agreed within the Mediterranean Action Plan[3]. The geographic scope of this protocol extends seaward to the limit of territorial seas, thus overlapping with the MSP area of responsibility of the Member States that are signatories.

More generally, it is recognised that MSP and ICM should be linked where possible, as they both seek to address the problems of fragmented governance in coastal and marine settings, and include similar principles, such as the importance of stakeholder participation. They may therefore work together in addressing issues such as nature conservation, coastal flooding and defence and local economic development.

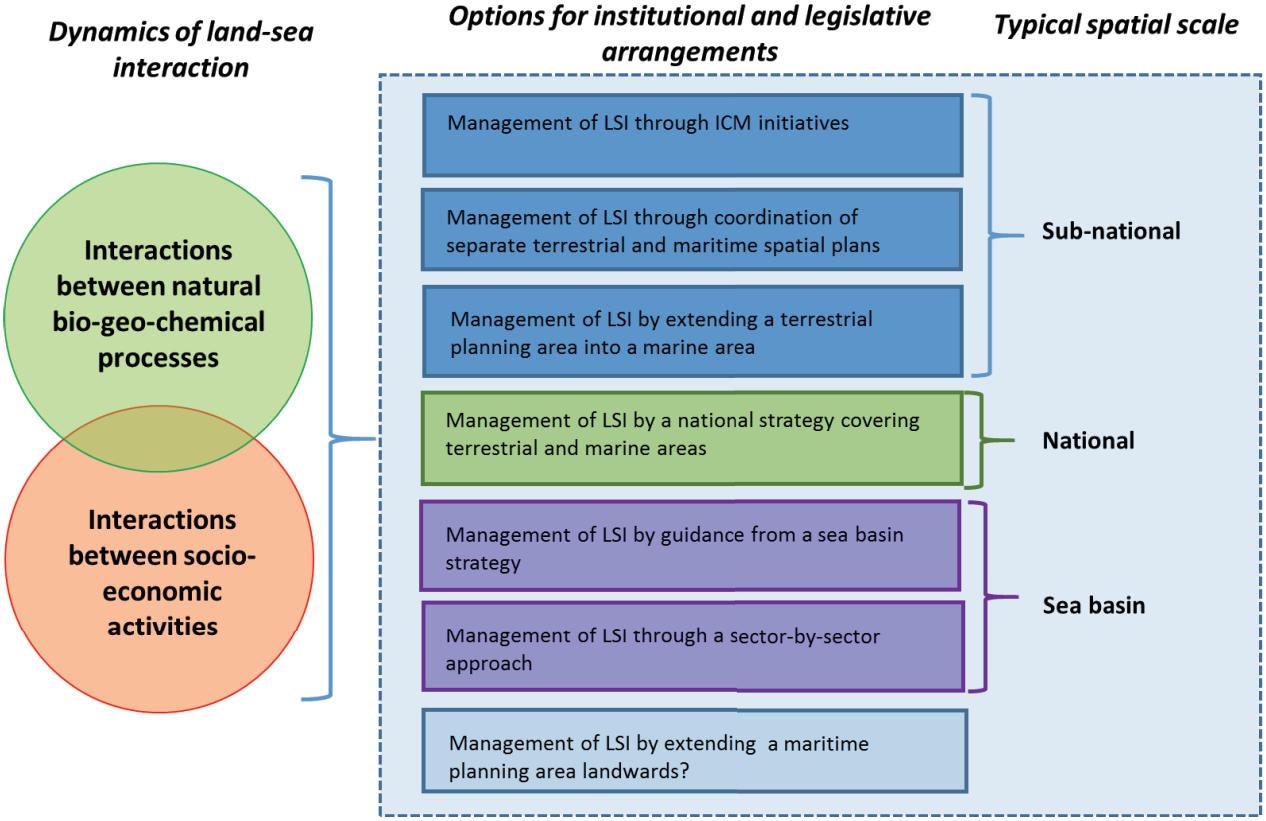
1 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2000:0547:FIN:EN:PDF

2 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002H0413&from=EN

3 http://www.pap-thecoastcentre.org/pdfs/Protocol_publikacija_May09.pdf

4. A general Framework for Land-Sea interaction

LSI is a complex phenomenon, involving both natural processes across the land-sea interface and the impact of human activities in this zone. When undertaking MSP, authorities should, firstly, seek to understand the dynamics involved, and, secondly, find institutional mechanisms that are most suited to addressing LSI within their governance context. There may be a range of options available, involving different spatial scales of intervention. The figure below sets out a general framework to address LSI within MSP.



4.1 Dynamics of land-sea interaction

4.1.1 Interactions due to bio-geo-chemical processes

Interactions between the land and sea can be driven by a number of bio-geo-chemical processes, such as agricultural run-off resulting in eutrophication of coastal waters. Another example is the land-based pollution associated with agricultural and industrial activity. The coastlines subject to

the highest environmental pressures are those surrounded by the Atlantic Ocean, the North Sea and the Baltic, while other hotspots are evident along the northern shores of the Mediterranean and in the Black Sea. River discharges affecting coastal tourism and recreation activities at sea also need to be identified and assessed. This is also related to fish migration up-stream and the need for blue corridors. These may impact directly on human activities; for example, currents and climate affects decisions on port infrastructure and maritime routes.

A number of EC funded projects and national studies have sought to investigate the nature of these interactions and develop best practices which can be used by marine and terrestrial planners to manage LSI. For example, the Celtic Seas Partnership project promoted a better understanding of the environmental pressures on the marine environment which can arise from landward development.

Another example is the INTERREG MED-funded project CO-EVOLVE, which will analyse and promote the co-evolution of human activities and natural systems in coastal areas in the Mediterranean, encouraging the sustainable development of tourism, based on the principles of ICM and MSP.

4.1.2 Interactions between socio-economic activities

Many maritime uses need support installations on land. Some uses existing mostly on land (e.g., tourism, recreation, ports) expand their activities to the sea as well. These interactions need to be understood, in order to assess their individual and cumulative impacts and potential conflicts and synergies.

The Channel and southern North Sea are typical examples of regions with high levels of maritime activity. This is due to the concentration of population and economic activity on the London, Paris, Amsterdam axis, the presence of mega ports such as Rotterdam and channels such as the Nord-Ostsee-Kanal, one of the main trade routes between Europe and the rest of the world.

Similarly, transnational 'regional hubs' show strong land sea interactions and host important maritime clusters. Frequently, they are related to more than one European sea, as is the case of the UK, Ireland and northern France regional hub, which spans both the Atlantic and the North Sea.

These interactions have been studied on national and regional scales in government and EC funded projects. For example, the ESaTDOR project (part of the ESPON 2013 programme) sought to understand development opportunities and risks through the lens of land sea interactions in Europe. The project created a map of European Seas showing where land-sea interactions are at their most intense.

4.2 Options for institutional and legislative arrangements to address LSI

4.2.1 ICM initiatives

LSI interactions may be managed through ICM initiatives which are already established. For example, Croatia is developing a Joint Management Strategy for Marine Environmental and Coastal Zone Areas and the related Action Programme. The strategy links the ICM Protocol obligations with MSFD ones.

4.1.2 Coordination of separate terrestrial and maritime spatial plans

Some countries have chosen to maintain separate terrestrial and marine planning systems whilst still ensuring land sea interactions are taken into consideration. An example of this can be seen in Finland where land-sea interactions are strongly reflected because the Land Use and Building Act is implemented in territorial waters as well, and plans cover usually both land and sea. Still, there are also some regional plans covering only sea areas. In other cases marine areas are planned in the frame of regional plans covering both terrestrial and marine areas like in Uusimaa, Varsinais-Suomi, Satakunta or Keski-Pohjanmaa.

4.2.3 Extending a terrestrial planning area to a marine area

Local and regional scale territorial plans can also extend to the marine environment with a view to include land sea interactions within these areas. For example the Spatial Planning Act of Mecklenburg-Vorpommern covers land and sea areas (12nm-zone), so that the Spatial Development Programme of Mecklenburg-Vorpommern contributes to integrated land-sea spatial development.

4.2.4 National strategy covering terrestrial and marine areas

Another approach is to manage LSI through the creation of a national strategy which encompasses both the terrestrial and the marine environment. This is the approach taken by the Netherlands, for instance. Malta also has a similar approach through their Strategic Plan for Environment and Development, an overarching document covering both land and sea which also acts as the national Maritime Spatial Plan.

4.2.5 Guidance from a sea basin strategy

LSI can also be managed on a larger, sea basin scale. For example, in the Baltic Sea Region, VASAB develops long term strategies and visions for the region, including spatial planning and development. In the Mediterranean, UNEP-MAP is taking LSI on board, in particular through PAP/RAC, which is specifically focused on the implementation of the ICZM protocol. This protocol expressly includes territorial waters within its geographic scope, creating a direct link to MSP.

4.2.6 Sector-by-sector approach

LSI can also be managed within sectors themselves, such as oil and gas, and tourism, sometimes operating at a sea basin scale. The above mentioned CO-EVOLVE project, which started in early 2017, is doing something similar for tourism.

4.2.7 Extending a maritime planning area landwards?

It is also technically possible to address LSI by extending the remit of MSP inland, landwards of the high-water mark (in contrast to extending a terrestrial planning area seaward). However, this would impinge on existing terrestrial planning systems. This is not an approach that appears to have been adopted so far.

4.3 Spatial scales to address LSI

It is clear from the above examples that LSI can be addressed at a variety of spatial scales. These include:

- Local areas, such as ICM partnerships and economically-driven initiatives, involving municipalities and other local interests
- Sub-national planning territories, such as maritime plan areas, involving MSP authorities working in collaboration with coastal and maritime stakeholders
- National territories, where a national strategy or plan, covering the whole of the nation's waters, and possibly its land area as well, may guide LSI efforts
- Sea-basins / transnational regions, where transnational cooperation may produce a strategy or protocol for guiding national LSI efforts and ensuring ongoing cross-border cooperation

These scales are not mutually exclusive. For example, a higher-level strategy may be implemented or supplemented at a sub-national or local level by other instruments. It should also be recognised that spatial scales vary between Member States. In some contexts, the sub-national (regional) scale of governance is of great importance, whereas for others only the local and national scales of governance exist.

It is for each Member State / MSP authority to decide on the most suitable level(s) of governance to take LSI into account, giving consideration to existing institutional arrangements for spatial planning and management.