

Inspire policy making by territorial evidence



MSP-LSI – Maritime Spatial Planning and Land-Sea Interactions

Targeted Analysis Version 20/02/2020

Executive Summary

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An Approach to Exploring LSI in MSP

The 2014 Maritime Spatial Planning Directive requires coastal states of the European Union to establish complete coverage of maritime plans by 2021 taking land sea interactions (LSI) into account in order to promote sustainable and integrated development and management of human activities at sea (Box 1).

Box 1: EU MSP Directive - MSP and Land-Sea Interactions

Recital 16) 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.

Making sense of LSI for the MSP community (including MSP and terrestrial planners where relevant) presents significant challenges and the MSP-LSI project has investigated how LSI considerations may be defined and operationalised (see Figure 1). Based upon an examination of existing LSI research and practice related to MSP/terrestrial planning, an approach to exploring LSI has been developed. This includes:

- a framework for considering LSI in MSP;
- proposed working definitions of LSI, Coastal Area and LSI Core Area; and
- a method for more detailed investigation of LSI with a particular focus on understanding the main socio economic impacts on land of key maritime sectors.

The approach been tested in 5 pilot case studies (Slovenia, the Gulf of Gdańsk, the Croatia Coast and Islands, The Dutch North Sea Coast and The Pomeranian Bight) covering different LSI contexts and scales of analysis. These activities have informed the Guidelines for Good Management of LSI in MSP set out here.

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Figure 1: Maritime Spatial Planning and Land-Sea Interactions

Source: Willemijn Lambert

A Framework for Considering LSI in MSP

A general framework for LSI consideration is provided in Figure 2. This could be used as reference point for initial scoping of LSI issues in different MSP contexts.

The framework illustrates that LSI entail deeply complex and dynamic phenomena but provides a means of stepping into this complexity in a structured way. It shows that LSI involve the intricate and constantly shifting interconnection between socio-economic activities both in the sea and on land with natural processes that span the land-sea interface. The experience in both these dimensions is also influenced directly and indirectly by governance arrangements related to marine and terrestrial areas. These form part of the framework conditions that affect the realisation of LSI opportunities and management of LSI risks.

Beyond this initial disentangling of different LSI dimensions, the framework also provides a listing of LSI issues that have been recognised as being of potential MSP concern. This could act as an initial checklist in identifying which LSI issues merit particular consideration in a local context. With this in mind it is worth noting that four maritime sectors were most commonly mentioned in the MSP/LSI literature/practice review which informed the development of the framework: Maritime Transport; Ports, Warehousing and Water Projects; Coastal Tourism; and Offshore Energy (including marine extraction of oil and gas, offshore wind energy and ocean energy).

LSI Opportunities Key LSI Activities LSI of relevance to MSP Maritime Transport Ports, Warehousing and Water Projects Coastal Tourism Offshore Energy: Marine Extraction of Oil and Gas Offshore Wind Energy Ocean Energy Socio-economic Cables and Pipelines Terrestrial Marine Aggregates activities Seabed Mining Co2 Capture and Storage Aquaculture Fisheries LSI Governance Blue Bioeconomy/ local, national, Biotechnology transnational Governance Cultural Heritage/ UWCH LSI Stakeholder Arrangements Defence and Security Collaboration Desalination LSI Data Water Abstraction Urban Development Agriculture Coastal and Environmental Protection Bio-geochemical Climate Change Marine Extreme Events processes Soil Erosion Natural Subsidence Saline Intrusion Hydrogeological Instability Sediment Transport Flooding Volcanic and Tectonic Activities Algal Bloom **LSI Risks Key LSI Processes**

Figure 2: MSP-LSI Framework for Considering LSI in MSP

Source: MSP-LSI Project Team

A Method for Investigating LSI in MSP

To help operationalize LSI investigation particularly with key maritime activities and socioeconomic impacts on land in mind the following method is suggested (see Figure 3).

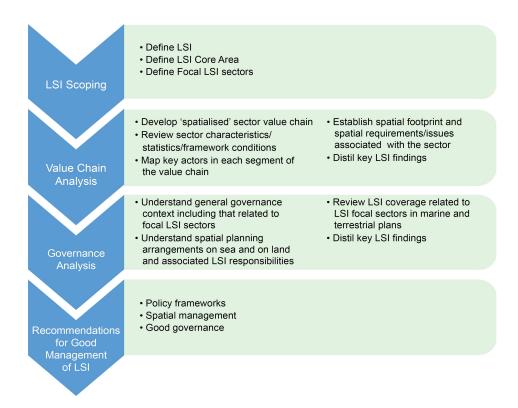
LSI Scoping: LSI scoping is a useful first stage. With reference to the framework for considering LSI in MSP and the LSI definitions set out above, this might involve an initial discussion with relevant stakeholders about the nature of LSI and what might be meant by the coastal area/core area in order to identify focal LSI issues for further examination.

Value Chain Analysis: Based upon established value chains used by the World Trade Organisation and DG Mare, the MSP LSI project has developed a spatialized approach for considering LSI associated with maritime sectors. This structures investigation of sector characteristics, statistics and framework conditions affecting the operation of the sector. It then involves mapping of key actors in each segment of the value chain and building up of a picture of its spatial footprint, the spatial connectivity between different segments and the relative 'stickability' of economic and other benefits within coastal communities. From this, key LSI issues can be distilled and areas where action may be beneficial can be identified.

Governance Analysis: This can begin with an overview of the general governance context including that related to the selected focal sectors. This is followed by a review of spatial planning arrangements on land and sea, and the relationships between them as well as establishing who has the competence to deal with LSI and in what way. Subsequently more detailed examination can be undertaken of the treatment of focal LSI sector issues in terrestrial and marine plans and strategies. Analysing these governance findings may again help to identify areas where action may be beneficial and who has responsibility for action.

Recommendations for Good Management of LSI: In this final element, findings from the different aspects of investigations can be brought together to draw out key messages and develop recommendations for good management of LSI.

Figure 3: A Method for Investigating LSI in MSP

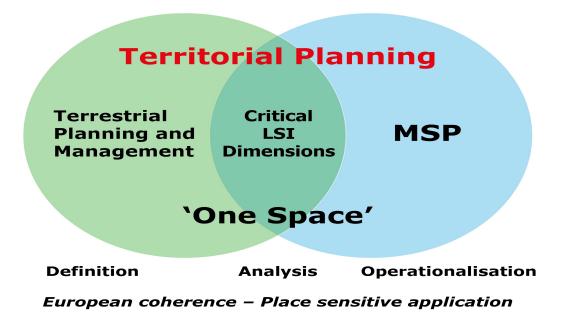


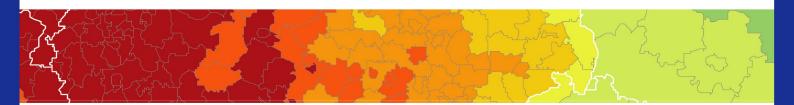
Conclusions and Recommendations

Taking account of LSI in MSP in line with the 2014 MSP Directive recitals presents significant challenges due to the complex socio-economic, bio-geochemical and governance interrelationships involved. The MSP-LSI study has explored how LSI considerations can be defined and operationalised for the MSP community with a focus on understanding the main socio-economic impacts on land of key maritime sectors. Some final conclusions and recommendations are set out here.

- Recommendation 1: The 'MSP-LSI Framework for Considering LSI in MSP' can help to identify the most important LSI of relevance to MSP in different contexts.
- Recommendation 2: The 'MSP-LSI Method for Investigating LSI in MSP' can help structure more detailed investigation of LSI issues particularly those associated with maritime sectors and governance considerations.
- Recommendation 3: The list of example information sources drawn upon the MSP-LSI study (see Annex 1 of the Final Report) can help guide data collection related to LSI involving maritime sectors in MSP.
- Recommendation 4: The Method of Investigating LSI in MSP can also be used to inform the scope of stakeholder engagement processes within MSP plan making and subsequently in marine licensing and MSP input to other spatial and sectoral planning and management regimes.
- Recommendation 5: Developing a 'one space' territorial perspective should be encouraged to better address LSI.

Figure 4: Addressing LSI and a 'One Space' Perspective in Territorial Planning





ESPON 2020 – More information

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