

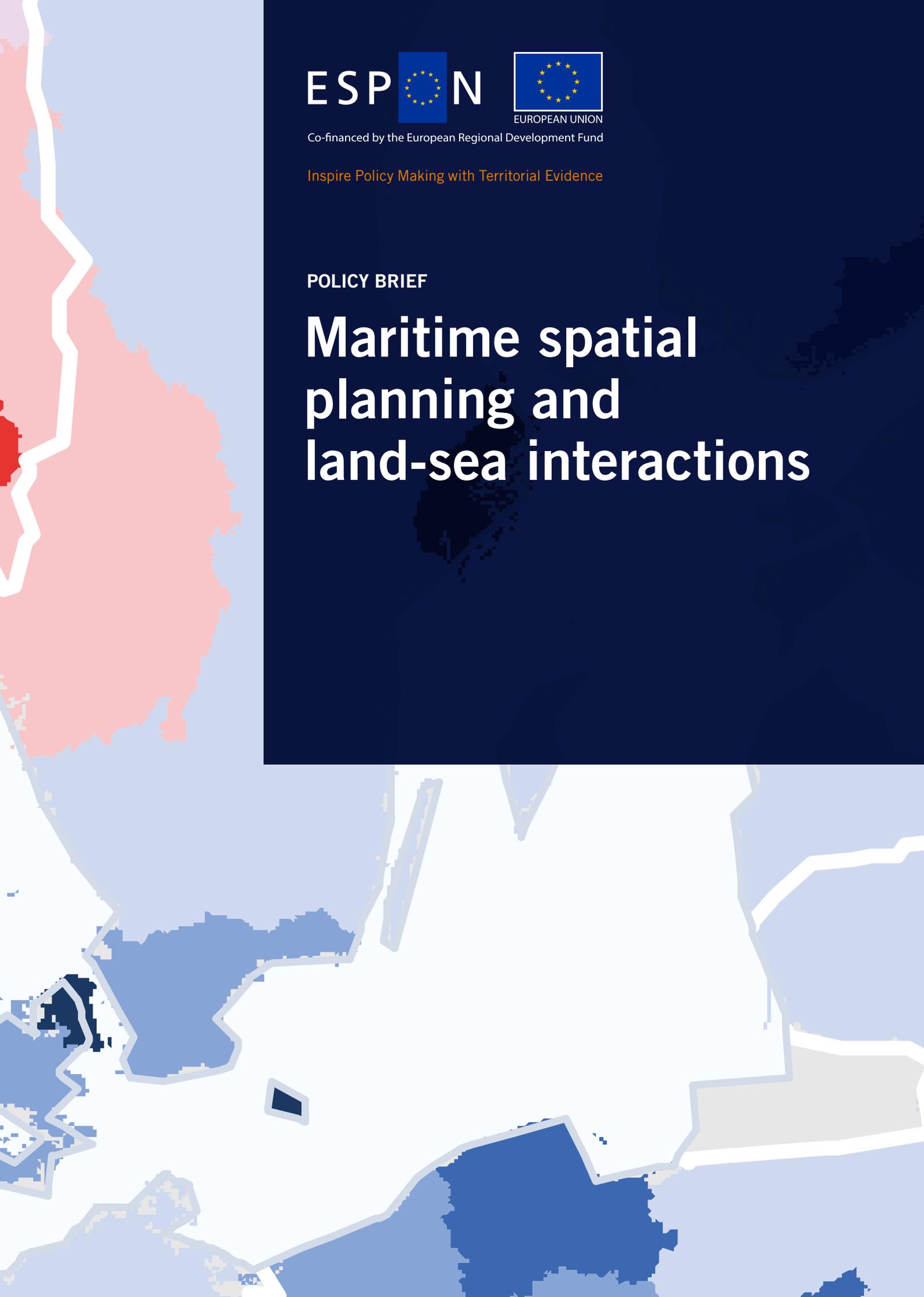


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Inspire Policy Making with Territorial Evidence

POLICY BRIEF

Maritime spatial planning and land-sea interactions



Maritime spatial planning (MSP) is a process that encompasses the analysis and organisation of human activities in marine areas to achieve ecological, economic and social objectives. According to the European Commission's Directive on MSP, European Union (EU) coastal states are obliged to develop national maritime spatial plans by 31 March 2021 at the latest. These plans need to fulfil several requirements, including taking account of land-sea interactions (LSI), following an ecosystem-based approach, ensuring coherence between MSP and other processes, and enabling transboundary cooperation between EU Member States.

The MSP Directive requires that LSI are taken into account to promote sustainable and integrated development and management of human activities at sea. Alignment between maritime and terrestrial spatial planning should be achieved through consistency of policies, plans and decisions. However, stakeholders engaged in MSP experience significant challenges in comprehending and working with LSI.

This policy brief sets out to support planners and policy officers in making well-informed decisions when working with LSIs, in the context of MSP, regionally, nationally and across borders. It does so by presenting one possible way of dealing with the complexity of LSI within MSP.

KEY POLICY MESSAGES

- Close integration of spatial planning for the land and the sea, i.e. a 'One Space' territorial planning approach, can be instrumental in addressing the requirements for land-sea interaction laid down in the European Commission's MSP Directive.
- The approach for investigating land-sea interactions proposed by ESPON allows the spatialising of value chains of maritime activities, which show that these activities can not only have significant landward footprints and impacts that extend beyond local coastal communities, but also have regional, national and international reach.
- This way of analysing LSI provides a structured approach to identifying key actors within the value chain who may not necessarily be located in the coastal area. It is important to be able to involve all relevant stakeholders in the planning process.

1. Challenges in ensuring consistency of spatial plans

Maritime spatial planning (MSP) has become an increasingly important policy field, aimed at reconciling different demands on the marine space. Under the EU Directive on MSP (European Union, 2014), EU coastal states need to establish complete coverage of maritime plans by 31 March 2021 and cooperate with neighbouring states on these issues.

Most development and use that takes place in the marine environment also have an onshore component or impact. This is why the MSP Directive requires that land-sea interactions (LSI) are taken into account to promote sustainable and integrated development and management of human activities at sea.

Alignment between maritime and terrestrial spatial planning should be achieved through consistency of policies, plans and decisions. However, stakeholders engaged in MSP experience significant challenges in making sense of LSI. To begin with, there are numerous factors and sector policies that shape development on both land and

sea, all of which should ideally be considered in an integrated planning process. Furthermore, planning for land and sea is often divided between different government departments and agencies, reflecting the characteristics of particular country contexts. This results in complex governance settings that are further complicated by the need for cross-border coordination, since LSIs are more often than not of a transnational/cross-border nature. In addition, LSIs differ for each region, and there are different methods to look at the interaction and the influence of activities on land with/on the marine system and maritime world, and vice versa. Finally, in the process of devising maritime spatial plans, valuable institutional learning and capacity building takes place that is at risk of being lost for future plan reviews with people changing jobs. This makes it clear that there cannot be one European approach to analysing the intricate relationships between land and sea in the context of maritime and/or territorial planning.

2. ESPON's contribution to resolving these challenges

With this policy brief, ESPON proposes one possible way of approaching the complexity of land-sea interrelations within MSP and aims to contribute to improved (maritime) spatial planning processes. ESPON advocates a 'One Space' approach to planning that is in line with the MSP Directive's request for integrated planning of human activities, both on land and at sea. This approach ensures that maritime activities can deliver sustainable growth and that sea-use conflicts can be managed. MSP can be instrumental in establishing such integrated planning and good governance arrangements. Furthermore, it can contribute to restoring degraded marine ecosystems by supporting an ecosystem management approach, which has become all the more important in relation to climate change adaptation and disaster risk management.¹

The [ESaTDOR](#) (European seas and territorial development, opportunities and risks) project was the first ESPON research activity that focused on European seas and land-sea interactions. It identified patterns of sea use, types of coastal regions and the intensity of land-sea interactions; analysed development opportunities and risks by taking account of issues regarding sustainability and climate change; and investigated the relationship between terrestrial and maritime spatial planning, seeking optimal practices for maritime governance. The ESPON [MSP-LSI](#) (Maritime spatial planning and land-sea interactions) project picked up the evidence gathered by ESaTDOR and put a particular focus on land-sea interactions and how these can be addressed when devising maritime spatial plans.

The evidence and proposals presented in this policy brief derive predominantly from the ESPON MSP-LSI project,

which examined existing LSI research and practice related to maritime/terrestrial planning as a starting point. On this basis, the project developed a possible approach to addressing the relationship between land and sea in spatial planning. This approach includes:

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

The approach was tested in five pilot case studies (Slovenia, the Gulf of Gdańsk, the Croatian coast and islands, the Dutch North Sea coast and the Pomeranian Bight) covering different LSI contexts and scales of analysis.

This policy brief sets out to support planners and policy officers in making well-informed decisions when working with LSIs, in the context of MSP, regionally, nationally and across borders. It can also be informative for the EU Member States' Expert Group on MSP, as well as the Directorate-General for Maritime Affairs and Fisheries and the Directorate-General for Environment as focal points for the European Commission. Moreover, this publication can be interesting for regions working nationally in and around sea basins, for instance in the Conference of Peripheral Maritime Regions (CPMR), and for Members of the European Parliament, notably the Intergroup SEARICA.

¹ For more information on ecosystem management, climate change adaptation and disaster risk management, please have a look at ESPON [GRETA](#) (Green infrastructure: enhancing biodiversity and ecosystem services for territorial development) and ESPON [TITAN](#) (Territorial impacts of natural disasters).

3.

Integrating MSP and land-based spatial planning – European experiences

This section explores the existing and emerging mechanisms for integrating MSP and land-based spatial planning, and the role that these policy frameworks can have for addressing LSI.

It is important from the outset to recognise that MSP is one of many framework conditions that shape development activities on the land or in the sea. Other critical policy drivers, private sector investment decisions and support given to various sector activities are also critical factors shaping development opportunities and influencing risks. Nevertheless, MSP can and does have an important role to play in shaping the territorial consequences of LSI through:

- policy frameworks;
- spatial management;
- good governance.

These aspects are elaborated on in the subsequent sections.

3.1.

Policy frameworks

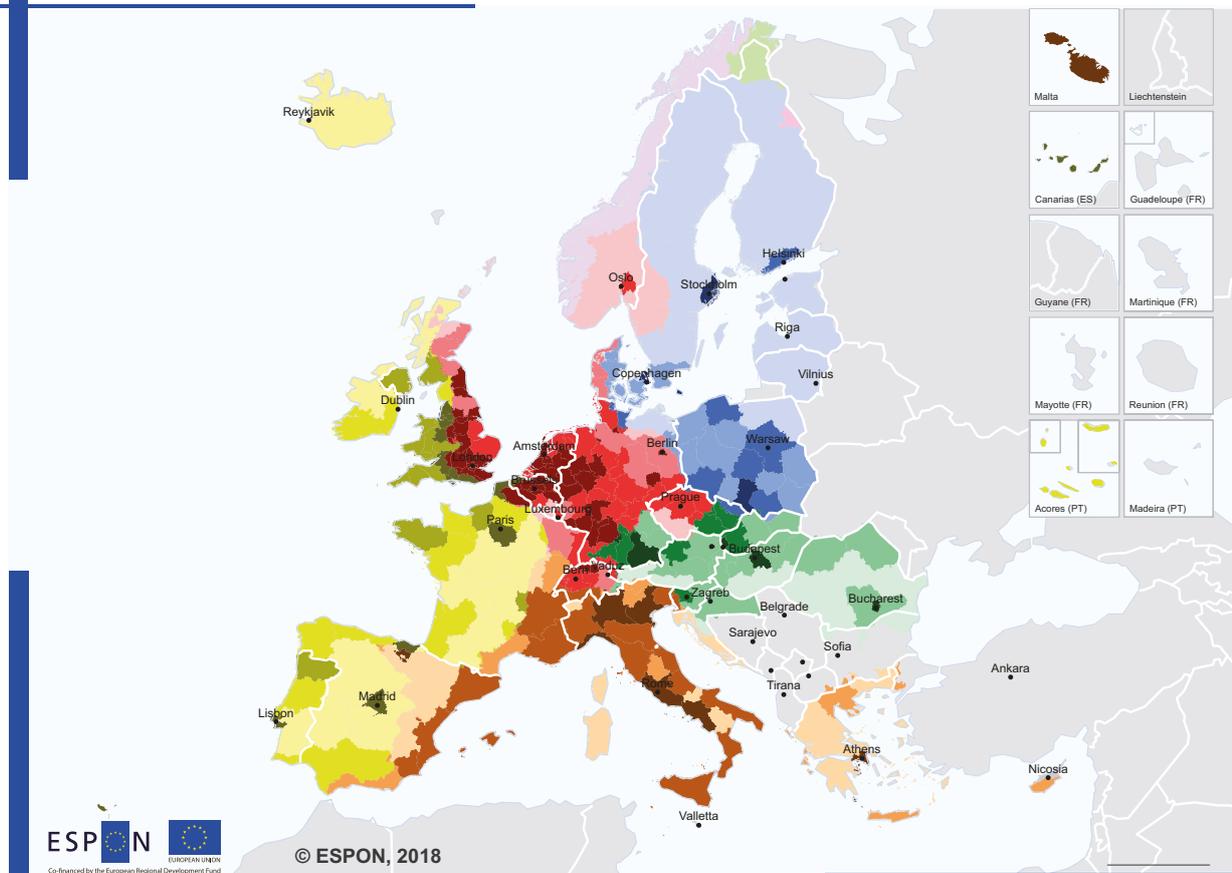
There are a range of different European policies that are affecting marine space and therefore land sea interactions. These policy frameworks are translated into national policy agendas and priorities, which vary enormously from place to place, depending on the existing

opportunities and risks. For example, wind energy potential can effectively be realised in northern Europe, whereas in the Adriatic Sea its potential is limited. With regard to the land, it is important to remember that, despite common issues and European-wide policy agendas, land use/spatial planning systems remain an exclusive national competence, and these specific systems reflect the history, administrative structures and particular economic, socio-cultural and political priorities of that country. In regard to the sea, the planning system is also a reflection of individual national contexts. Therefore, **although MSP might remain a common European objective, its form and structure is country specific**, and in many cases it is overlaid on more established spatial planning systems on land use.

To add further complexity, **LSI differ for each region, and their consideration is also relevant in land-locked countries**. Although much of the interaction between land and sea takes place on coastal strips, Map 1 highlights how LSI extend much further across the whole of the European territory. Communities, business and ecological systems in those areas also benefit from and are dependent on the ocean, the seas and the coast. Therefore, planners and stakeholders need to decide, together with and under the guidance of the appropriate governmental levels, what works for their specific context and what LSI issues to take up as focus areas in their work.

Map 1

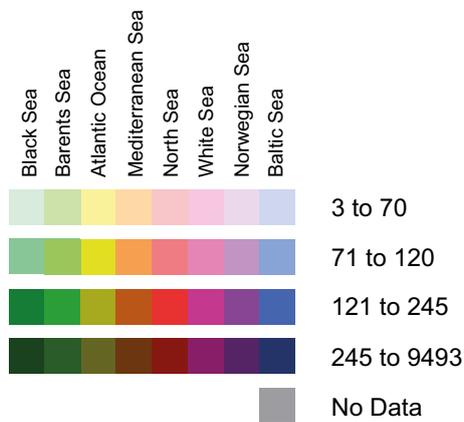
Population density per NUTS 2 region within sea catchment areas in 2017 (persons/km²)



ESPON
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Territorial level: NUTS 2 (version 2013)
Source: UMA, MSP-LSI, 2018
Origin of data: Water catchments, UNEP; EUROSTAT, 2017.
© UMS RIATE for administrative boundaries



The development of maritime spatial plans offers an opportunity to begin thinking strategically about the spatial implications and priorities for the increasing numbers of activities that require maritime space. This is all the more important when considering the current poor condition of Europe's seas due to overexploitation, pollution and climate change (European Environment Agency, 2019).

3.1.1. The legislative context

In many European regions, there are longstanding legislative competences for land, sea and/or integrated territorial planning. In Germany, for example, the *Länder* have been responsible for planning out to the limits of the territorial waters at least since 2001. So, although the MSP Directive dates from 2014, many countries have had legislation in place that predates this.

Furthermore, planning legislation for both the land and the sea often considers the national territory as an integrated whole; although, at the moment, there is still a tendency to separate the land from the maritime domain. Many countries already have legislation that treats these two parts of the territory as one integrated whole. **Where there is currently some distinction in planning for these two regimes, there is a strong aspiration to better integrate these two spaces as part of a territorial whole.**

3.1.2.

Competent bodies

Although most of the planning activities take place within national jurisdictions, there is widespread recognition that, particularly within the context of many of Europe's relatively enclosed seas, the consequences of LSI are often of a transnational and cross-border nature. From this perspective, many mechanisms exist to facilitate cross-border cooperation.

CASE STUDY 1

Cross-border cooperation in the Pomeranian Bight (DE/PL)



In the Pomeranian Bight, MSP mechanisms have been established to support exchange and intensify cross-border cooperation. There is a 'Common Future Vision for the German-Polish Interaction Area – Horizon 2030' (2016), with action plans and priorities focused on a number of strategic priorities, including:

- transboundary economic clusters based on local value chains;

- increasing the intensity of tourism development;
- improving energy security;
- promoting sustainable blue growth through coordinated MSP in the interconnected marine space.

This cross-border collaboration sits within the broader spatial visioning for the whole of the Baltic Sea through Vision and Strategies around the Baltic Sea (VASAB).

Within the national contexts, territorial planning for the land and sea is divided between a number of different government departments and agencies, reflecting the characteristics of particular country contexts. In the marine environment, planning responsibilities can be:

- integrated, led by a key body covering both domains;
- separated, led by a body for the land and a body for the sea;
- mixed, for example in the case of Germany, given the shared jurisdictional competence – a combination of the two.

In some instances, the competence for integrated territorial planning might be relatively new, even though the governmental institution may be well established.

3.1.3.

Instruments for MSP

There is a variety of approaches to developing MSP documents. These include framework documents that identify priorities for sea use, such as the Dutch *Policy Document on the North Sea 2016-2021* (Dutch Ministry of Infrastructure and the Environment and the Dutch Ministry of Economic Affairs, 2015) and that have been, or are being, translated into various strategies. Alternatively, some countries develop strategic spatial plans, for example the strategic plan for environment and development in Malta (Parliament of Malta, 2015), supplemented by detailed regulatory documents. In other countries, the main focus is on precise zoning of the sea to protect areas from development or identify areas where particular forms of activity could be authorised, for example the two Estonian pilot maritime spatial plans for the areas around Hiju Island and Pärnu Bay (European MSP Platform, 2020).

3.2. Spatial management

Although the legislation suggests an integrated approach for MSP, the extent to which this is actually operationalised in practice is limited. Furthermore, many local authorities have limited competences within the sea. These extend to either the shoreline or a maximum of 1 km offshore (in the case of the Dutch municipalities). A notable exception is in Croatia, where in planning terms the regions and the municipalities are expected to produce plans that cover the land and the sea out to the edge of the inland waters. So, planning at this local level and the responsibility for regulating development on the land or in the sea is often a local competence.

Similarly, with some notable exceptions, marine-based authorities have relatively limited power to determine what landward development should be permitted or not, although there might be an impact on MSP. One such exception can be found in Poland, where the Directors of the Maritime Offices have a long-established power and responsibility to veto land-based plans that might potentially be damaging to coastal defensive systems, and

thereby increase the risk of coastal flooding and pose concerns for citizens' health and wellbeing.

In many European coastal regions, maritime transport is the most important national LSI issue. Therefore, a key role of MSP is to protect shipping lanes and, if necessary, modify these to enable other uses in the sea to occur, although this can often lead to conflicts between different user interests. However, when it comes to the need to update port infrastructure on the coast and/or consider the implications of landward-based infrastructure, marine-based authorities have little role to play. However, they can, and have, facilitated a broader debate as to what the land-based consequences of such actions might be.

Offshore wind is one of the newer forms of activity that have emerged in the sea that require some form of sea-based licensing to be granted before development can occur. This has created controversy in some areas. In both Poland and the Netherlands, norms have been created at national level that state that offshore wind turbines should be sited at a sufficient distance from the coast to protect a free view of the horizon. This means that offshore wind farms are required to be situated beyond territorial waters.

CASE STUDY 2

Spatial management of offshore wind energy in Germany



In Germany, beyond territorial waters and out to the exclusive economic zone (EEZ), the federal spatial development plan determines where wind energy may be developed. On that basis, sites within these areas are auctioned off by the Federal Network Agency. The Federal Offshore Planning body prepares these plans, and the winning bidder may construct offshore wind turbines and connections to the onshore grid. Some of the initial projects were subsidised to encourage the private sector to invest. However, the withdrawal of these subsidies has created some doubts as to when and whether new offshore wind farms will actually be developed. However, a

recent round of bidding suggests that feed-in tariffs are sufficient to stimulate private sector activity.

This case illustrates that a national priority can be planned for and that the appropriate authorisations can be provided, but the same body does not necessarily undertake these. Both of these activities can rightly be considered as part of an MSP competence. However, implementation or commissioning of further offshore installations might be inhibited if the return on investment by the private sector is considered insufficient.

3.3. The importance of good governance

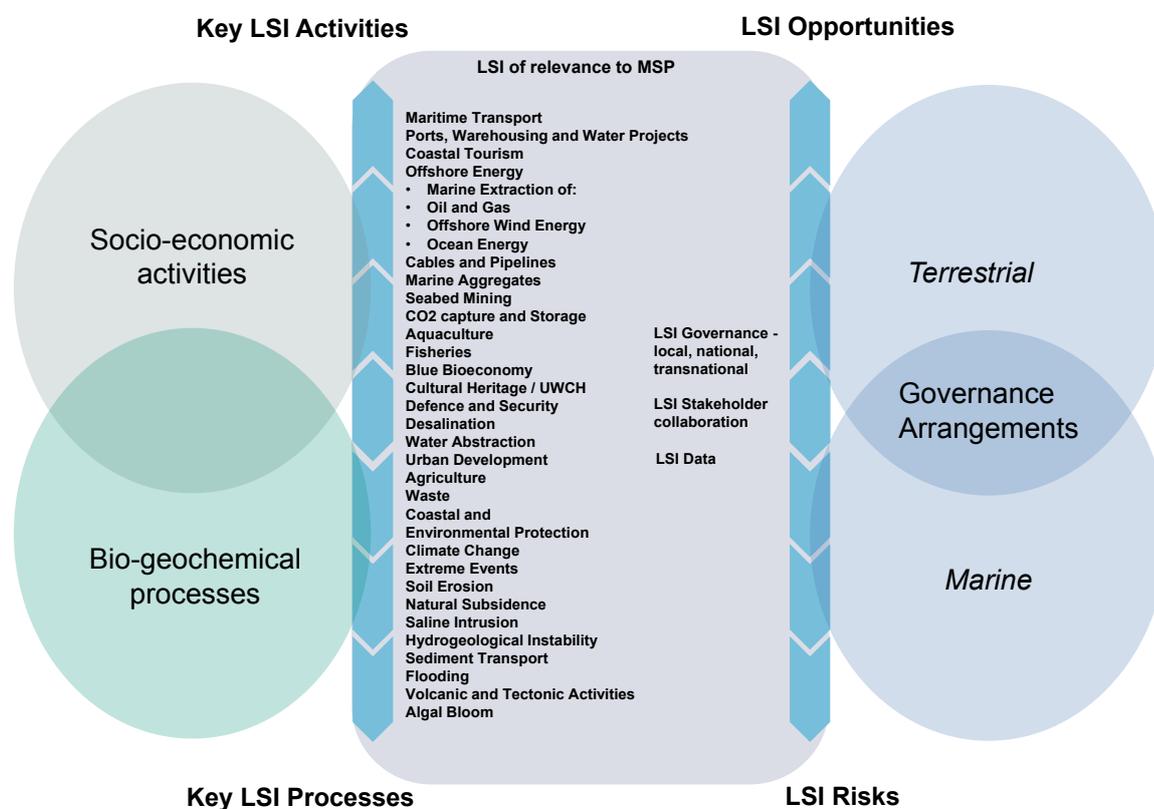
Although there is considerable variation in who has authority over marine space – whether it is an exclusive competence of national bodies or shared between national, regional and local entities – what is clear is that competition for use of this space is intense. Choices need to be made in determining which activities should have priority in particular parts of the marine space. This can then lead to different types of policy frameworks. At the moment, the predominant policy agendas that influence the way marine space is being conceived are the demand for low-carbon energy, maritime transport for global trade and the need for a good marine environment to support coastal tourism. These are set to remain prominent sectors in the forthcoming EU funding period, as reflected by the European Commission’s Green Deal (European Commission, 2019).

To further complicate matters, those bodies responsible for planning and strategy development are not necessarily the same bodies responsible for licensing activities,

especially within the marine context. It has also become clear that implementation, which is not so evident in MSP to date, will often depend on other framework conditions being supportive and encouraging the private sector to deliver. These are often beyond the scope of what might traditionally be thought of as MSP. **This complex inter-play of issues and agendas, policy frameworks and spatial strategies is what collectively can be described as MSP.**

The combination of circumstances and factors that play a role when dealing with LSI is visualised in Figure 1. It shows that LSI involve the complex and constantly shifting interconnection between socio-economic activities, both in the sea and on land, with natural/bio-geochemical 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.

Figure 1
MSP-LSI framework for considering LSI in MSP



Source: MSP-LSI Project Team.

Good governance requires effective horizontal and vertical integration, not just with governmental stakeholders but also with private and civic society interests, all of whom have a strong interest in how the sea is managed now and in the future. There is good evidence of how horizontal integration, especially at a national level, is being facilitated through the creation of coordinating bodies. One such example is the three directors of the maritime offices, who carry out maritime spatial planning in Poland under the direction of the Ministry of Maritime Economy and Inland Navigation and the Ministry of

Investment and Development, in consultation with other ministries with sectoral responsibilities (environment, water management, heritage protection, agriculture, fisheries, internal affairs and defence).

With regard to vertical integration, there is a lot of evidence of dialogues taking place to try to reconcile national priorities with more local interests. In some places, this has been facilitated through research projects and consultants.

CASE STUDY 3

Vertical integration in MSP (SI)



In Piran Bay, a dialogue between representatives of the national government and local stakeholders (municipalities, tourism providers, nature conservation and heritage interests, port authorities, mariculture, etc.) was facilitated through European funding for projects such as Shape,

Adriplan, SUPREME and the ESPON MSP-LSI project. Through stakeholder discussions through the framework of workshops, debates and the use of scenarios, the critical issues and priorities for the use of sea space emerged.

Good governance is critical in MSP, but it also raises **questions of whether MSP should be considered from the perspective of a product** (a framework, a plan or a decision), **or a process of iterative refinement, debate and influence across sectors and territorial spaces**, treating the land and the sea as an integrated whole. Currently, a lot of effort is being directed at stakeholder engagement in helping to prepare the plans. Institutional capacity has been built to enable this to happen. However, if the plan is primarily considered a product, produced at a particular point in time, and reviewed periodically, questions are beginning to be raised as to how to maintain or build the capacity and enthusiasm to

sustain the dialogue beyond plan adoption so that influences from the sea-based policies to land-based policies can be enhanced. Several countries utilise external help to facilitate the delivery of these plans, which creates the enabling capacity to facilitate stakeholder engagement, at least in the short term. However, it is also important for the long-term perspective to ensure that the key bodies charged with the delivery of MSP have the relevant capacities and benefit of institutional learning gathered throughout the planning process. Once a plan has been produced, there are long time frames before it needs to be reviewed (e.g. 10 years in Poland, as prescribed by the MSP Directive).

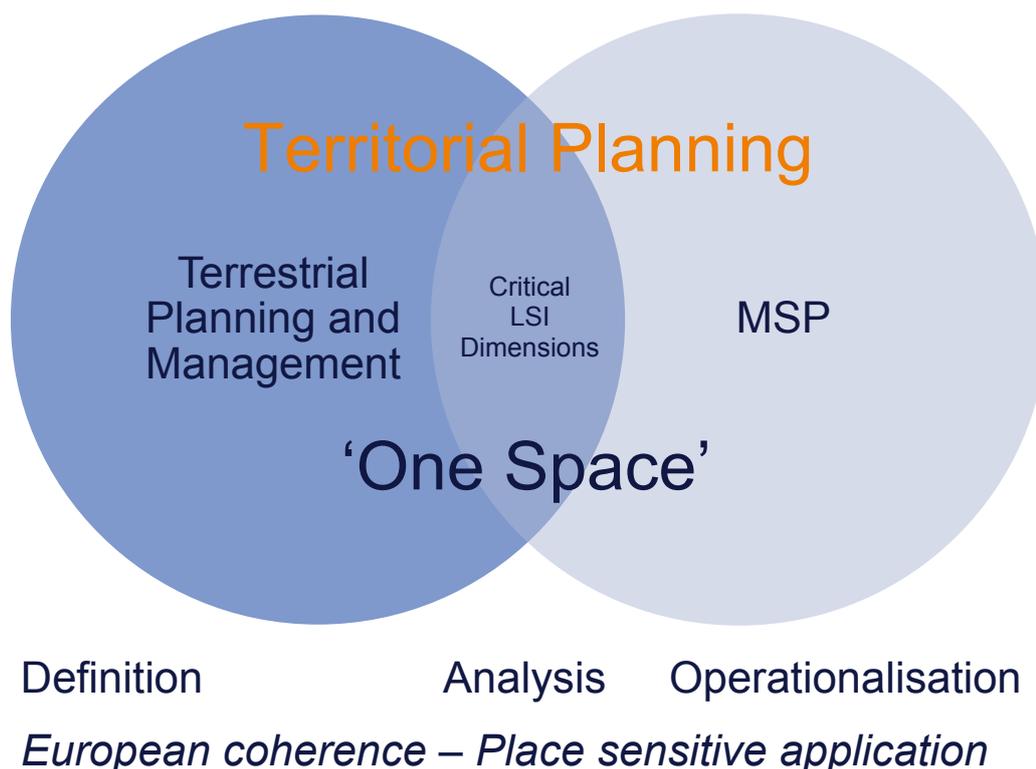
4. 'One Space' territorial planning

As mentioned above, **many countries already have planning legislation in place that treats the land and the sea as one integrated whole.** The ESPON MSP-LSI project advocates this 'one space' territorial perspective, as it encourages coherence and consideration of LSI. This interpretation is consistent with many of the core ideas related to the purpose of territorial governance and spatial planning carved out, for example, by the ESPON COMPASS project. However, it is felt that the value of such a perspective is not widely recognised at the moment among the terrestrial planning community. **Wider recognition and practice of a 'One Space' territorial planning view are seen as a key element in helping to better address LSI.**

With these considerations in mind, Figure 2 presents an overall concept that has informed the development of an approach to exploring LSI. This embodies:

- a 'one space' territorial planning view;
- a coordinated, comparable and systematic definition and evidence-based analysis of critical LSI dimensions relevant to MSP and those engaged in terrestrial planning and management across Europe;
- place-sensitive application and operationalisation of LSI considerations in the day-to-day processes and practices of relevant stakeholders.

Figure 2
Addressing LSI and a 'One Space' territorial planning perspective



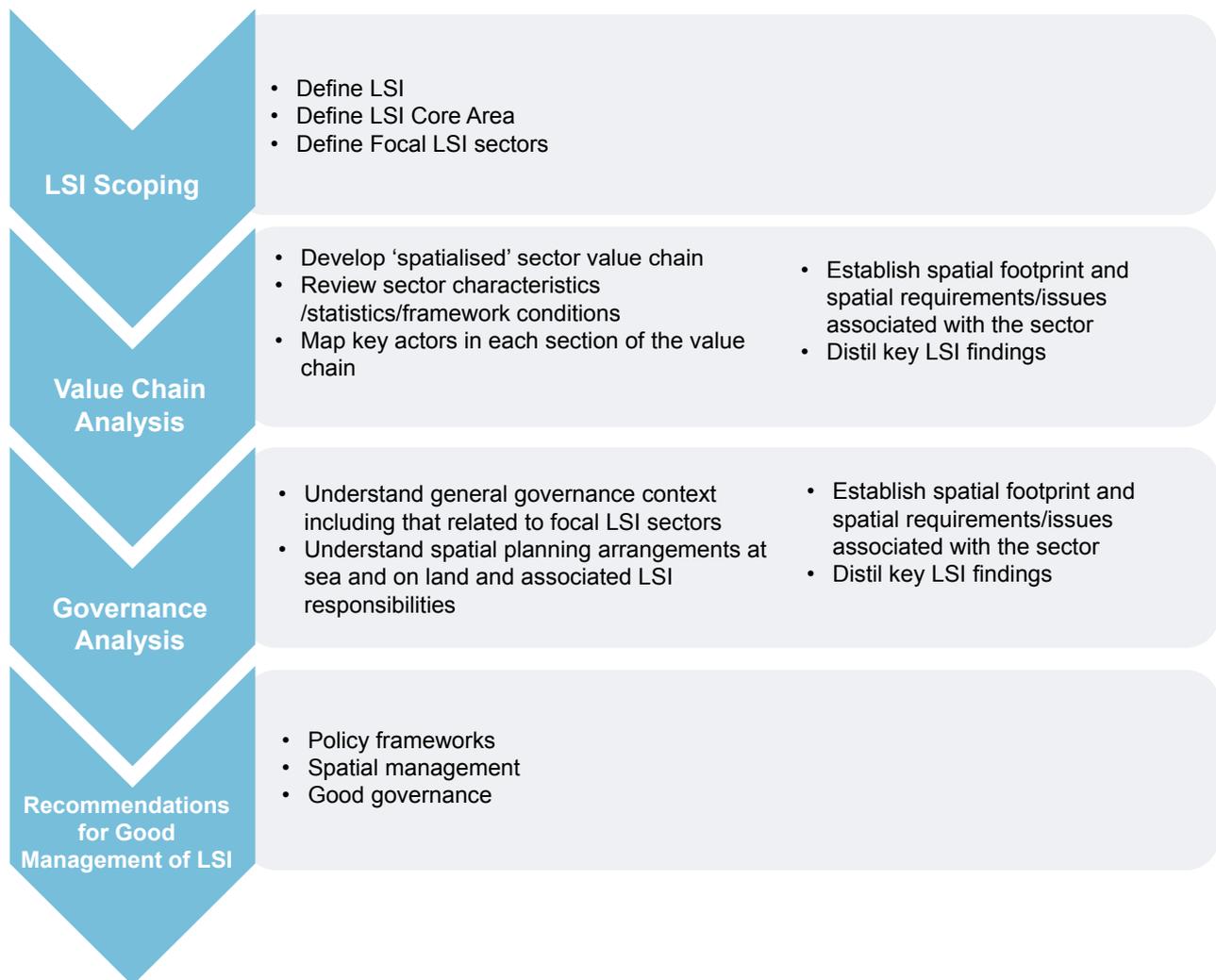
Source: MSP-LSI Project Team.

5. A possible method for investigating LSI in MSP

To help operationalise LSI analysis, particularly with key maritime activities and socio-economic impacts on the land in mind, ESPON proposes the following incremental process that has been developed by the MSP-LSI project

(see Figure 3). This approach can be applied at various scales of governance and can be helpful for planners working on maritime spatial planning as well as territorial planning.

Figure 3
A possible approach for investigating LSI in MSP



Source: MSP-LSI Project Team.

5.1. LSI scoping

LSI scoping is a useful first stage in analysing LSI in MSP. 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.

There is, for example, no widely recognised definition of LSI but a number of useful examples that can be considered. Agreeing on working definitions might help people to be more appreciative of LSI and associated issues. ESPON MSP-LSI developed the definitions in Box 1, which can be used as starting points at the LSI scoping stage.

BOX 1

MSP-LSI definitions of 'LSI', 'coastal area' and 'LSI core area'

LSI: The complex and dynamic interactions through which land-based bio-geochemical processes, socio-economic activities and governance arrangements present opportunities and risks to the marine environment, resources and activities and through which marine bio-geochemical processes, socio-economic activities and governance arrangements present opportunities and risks to the terrestrial environment, resources and activities.

Coastal area: An area of land and sea extending either side of the seashore in which interaction between the marine and land parts occurs in the form

of complex social-ecological systems, and the relevant geographical area to be included will vary according to ecological, social, economic and governance factors.

LSI core area: An area of sea defined by relevant marine planning boundaries (for example extending to a nation's EEZ or marine plan boundary) and an adjoining land area defined by relevant landward planning or data-gathering boundaries (for example terrestrial planning and NUTS regions) in which LSI might be expected to be most evident.

To define focal LSI sectors, the framework shown in Figure 1 can be used as an initial checklist. It can thus help identify which LSI issues merit particular consideration in a given local/regional context.

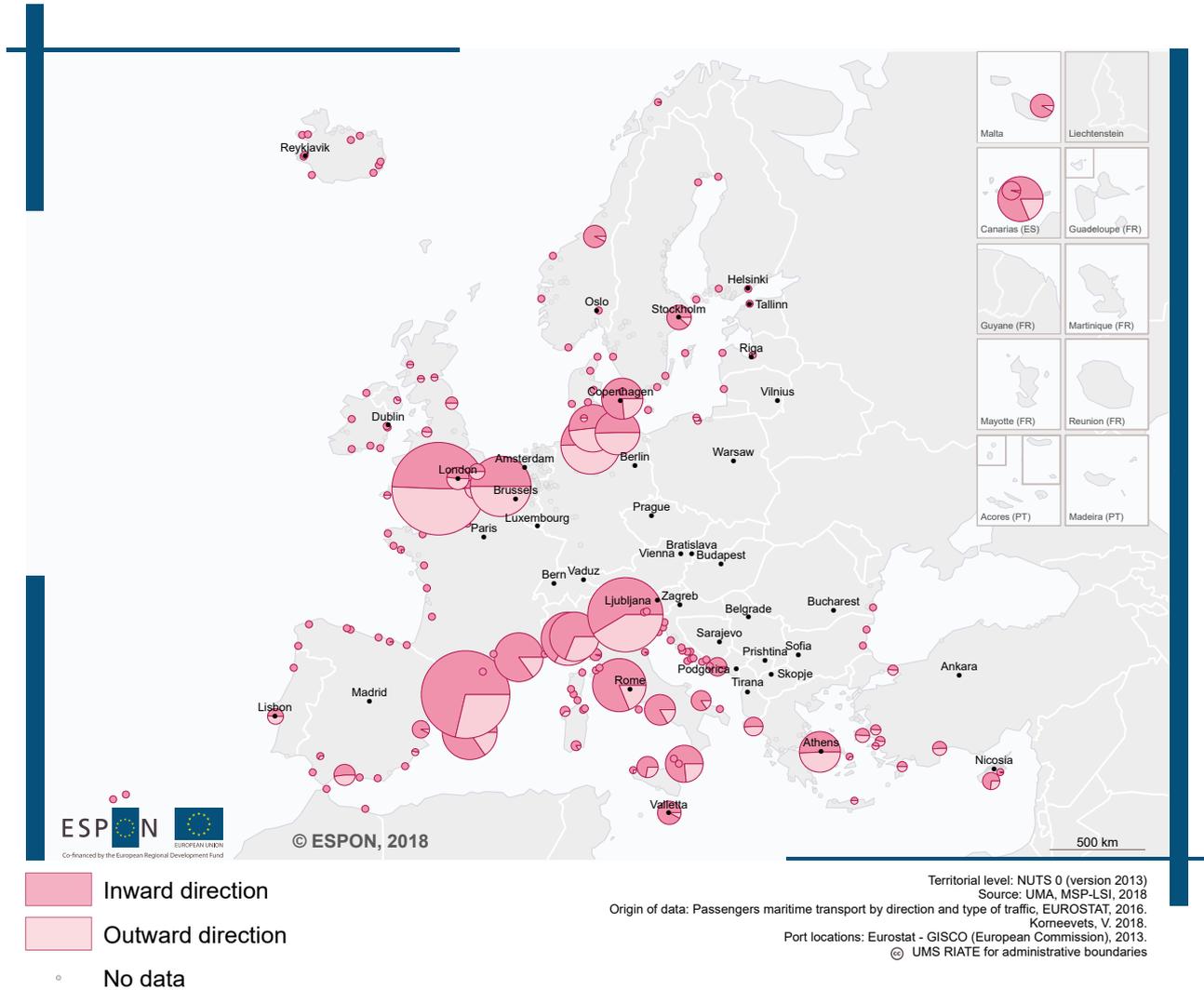
5.2. Value chain analysis

Based on established value chains used by the World Trade Organization and the Directorate-General for Maritime Affairs and Fisheries, the MSP-LSI project developed a **spatialised approach for considering LSI associated with maritime sectors**. This structures the investigation of sector characteristics, statistics and framework conditions affecting the operation of the sector. It then involves mapping key actors in each segment of the value chain and building up a picture of the spatial footprint of maritime activities and associated LSI. It also helps to identify where the costs and benefits of particular maritime sectors stick. This is important, as maritime

activities can have significant landward footprints and impacts that extend not only locally to coastal communities, but also regionally, nationally and internationally. Cruise shipping is one example of a maritime sector that may bring some local economic benefits, but its local 'stickability' tends to be relatively low and any potential economic gains may be offset by other economic, social and environmental costs. The concept of 'stickability' is an important framing device for policymakers in both MSP and terrestrial planning. From this, key LSI issues can be distilled and areas in which action may be beneficial can be identified.

This approach to value chain analysis is illustrated in Map 2, which looks at cruise shipping. Cruise shipping has been a global growth sector in recent years; however, the COVID-19 pandemic and worldwide travel restrictions that came along with it hit the global tourism industry. Given the current impacts that the pandemic is having on cruise tourism, it may take some time before the industry recovers and returns to a post-COVID-19 normal.

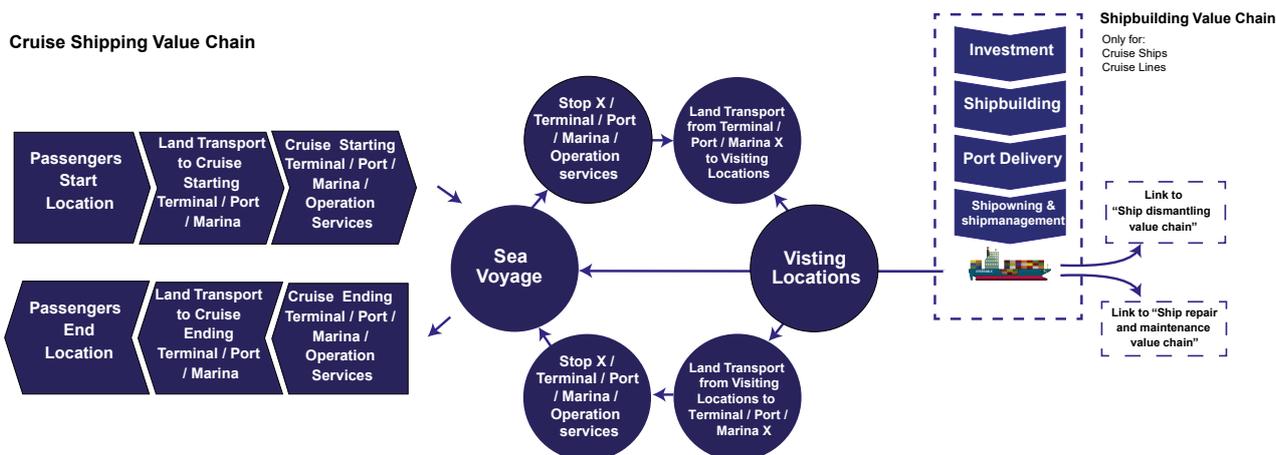
Map 2 Cruise tourism at European ports 2016



European coastal regions often struggle to capture the economic benefits generated by cruise ship arrivals. Likewise, they find it hard to respond to pressures to invest in associated port infrastructure and to preserve the local environment. Subsequent dialogues between cruise operators, ports and coastal tourism stakeholders at pan-European level, specifically in relation to the Baltic and Mediterranean regions, have confirmed both the potential for growth in the sector and the associated challenges for the receiving areas. The conclusions, so far, include a recognition of the need to involve all the tourism

chain (see Figure 4) in the benefits of and deliveries for cruise tourists, and a need to preserve the authenticity and heritage of visiting destinations. This should ensure the economic, social and environmental sustainability of cruise visits, including the appropriate management of noise levels, waste, water, air quality and energy efficiency at moorings and other locations. From this, it is evident that the future operation and further development of cruise shipping in Europe presents significant opportunities and challenges.

Figure 4
The cruise shipping value chain



CASE STUDY 4

Cruise shipping along the Croatian coast and islands (HR)

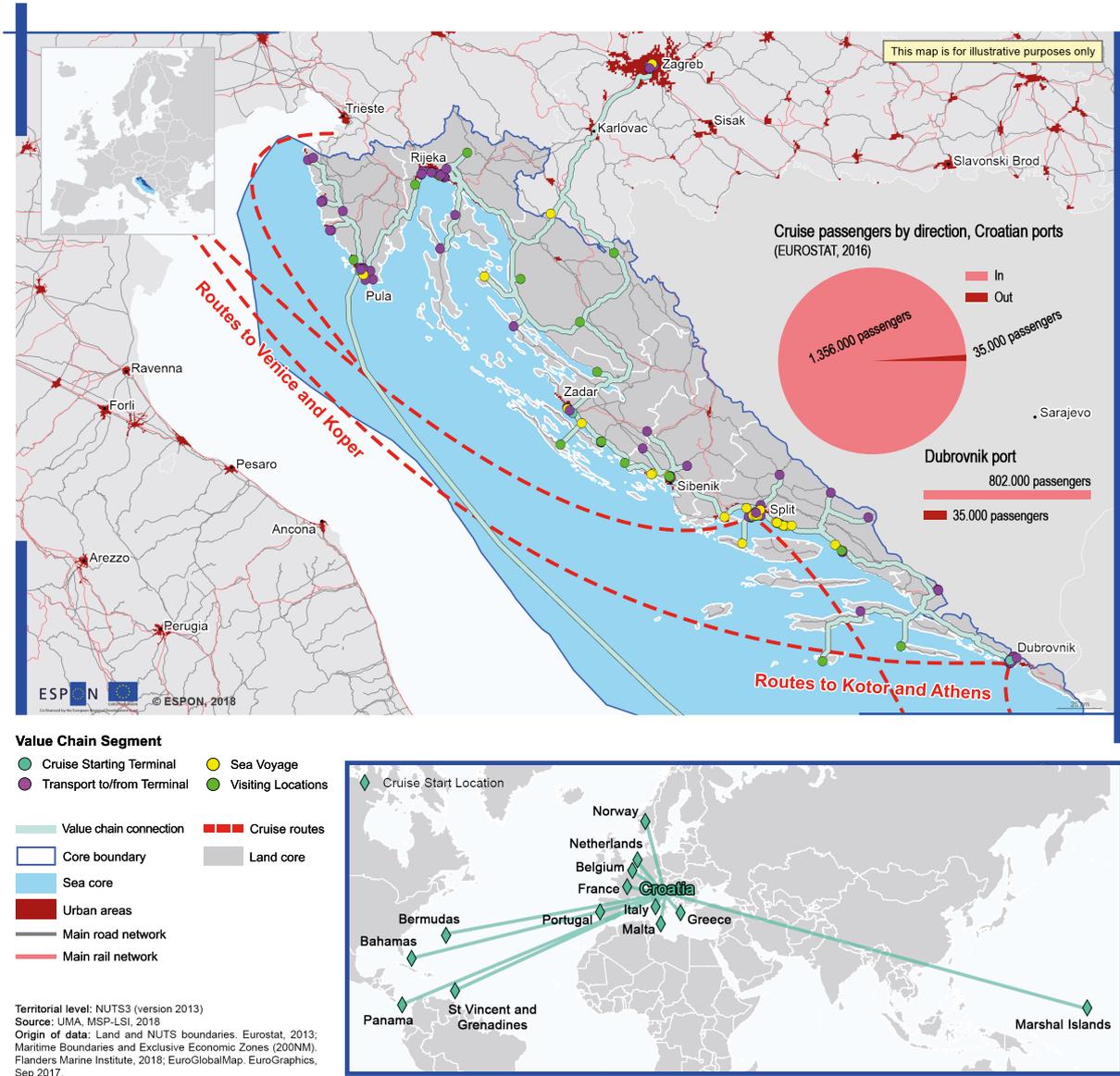


In spite of a wide range of visiting locations in Croatia, more than 70% of cruise tourism is focused on the city of Dubrovnik, which is a World Heritage Site. There are concerns that the daily number of visitors is well beyond the city’s carrying capacity, and, in line with United Nations Educational, Scientific and Cultural Organization recommendations, local authorities have begun limiting cruise visitor numbers. Another factor influencing this decision and of developing concern in other locations is the potential adverse impacts experienced by longer staying (and economically more significant) shore-based visitors and the quality of life of local residents. At the same time, it is acknowledged that, in contrast to coastal tourism, cruise shipping in Croatia tends to be an all-year-round activity.

Value chain analysis helps to reveal the spatial impacts of cruise shipping at visitor destinations and their spread, which includes the wider network of visiting locations beyond the terminal areas. Statistics also help to reveal the relative economic and social importance of the sector in these areas. In terms of direct employment in Croatia, it is estimated that the sector generated 3,988 jobs in 2017 and resulted in an estimated EUR 60 million of spending generated by cruise passengers’ onshore activities.

The spatial representation of the cruise shipping sector in Croatia, its inland connections and linkages to regions outside the country can be seen in Map 3.

Map 3 Croatian coast and islands: Cruise shipping



5.3. Governance analysis

The governance analysis can begin with an overview of the general governance context, including that related to the selected LSI 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. In this context, the [ESPON ENSURE](#) good practice framework can offer practical advice on analysing stakeholder landscapes, particularly when an array of stakeholders with multiple interests needs to be dealt with, as is the case in MSP.

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 in which action may be beneficial and establish responsibilities for action.

5.4. Recommendations for good management of LSI

In this final step of LSI investigation, findings from the different aspects of the analysis are brought together to draw out key messages and develop recommendations for good management of LSI.

6. Conclusions and recommendations

Taking account of land-sea interactions (LSI) in the framework of maritime spatial planning presents significant challenges because of the complex socio-economic, bio-geochemical and governance interrelationships involved (see Figure 5). The ESPON MSP-LSI project

explored how LSI considerations can be defined and operationalised for the MSP community, with a focus on understanding the main socio-economic impacts of key maritime sectors on land. The final conclusions and recommendations are set out in the subsequent paragraphs.

Figure 5
Maritime Spatial Planning and Land-Sea Interactions



Source: Willemijn Lambert.

ESPON offers a common reference point for initial scoping of the most relevant land-sea interactions in any given local/regional context.

The proposed framework for integrating LSI into MSP (see Figure 1) illustrates that LSI involve complex interrelationships between socio-economic, bio-geochemical and governance factors. Which LSI may be regarded as being the most important will be highly context specific. An initial 'checklist' of LSI issues is set out in the framework to help guide reflections on land-sea interrelations. 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) were most frequently mentioned in the ESPON MSP-LSI project's literature/practice review as raising LSI considerations, and these are suggested as an initial focus for reflection with regard to the specific local context.

ESPON proposes a possible method for investigating land-sea interactions in the context of maritime spatial planning. This can help structure a more detailed analysis of issues related to land-sea interrelations, particularly those associated with maritime sectors and governance considerations.

The MSP-LSI project developed a possible approach for investigating LSI in MSP in which maritime sectors and governance considerations are of particular concern (see Figure 3). This approach was piloted in case study investigations at local, regional, national and transnational scales, and refined throughout the study. The proposed method provides a way of stepping into the LSI complexity in a structured, focused and purposeful way, ultimately allowing recommendations for good management of LSI to be developed. It enables a tailoring of LSI considerations to different contexts, including levels of resourcing, by providing a structure that can guide in-depth research or lighter touch investigations, in the form of, for example, stakeholder workshops.

ESPON's proposed method of investigating land-sea interactions can also be used to inform the scope of stakeholder engagement processes within maritime spatial planning, and subsequently in marine licensing and MSP input to other spatial and sectoral planning and management regimes.

The ESPON MSP-LSI study has provided many useful insights that can inform stakeholder engagement processes in MSP and more widely. It is apparent that the scoping of key LSI issues in a particular context may inform the desirable scope of stakeholders to be engaged in MSP processes. In addition, the value chain analysis developed here, in relation to key maritime sectors, may reveal key sector actors that may not have previously been identified in stakeholder mapping exercises. However, the study has also revealed the importance of ongoing engagement with stakeholders beyond maritime spatial plan making, including the central role of MSP activities in promoting good governance of LSI. This involves engaging LSI-related stakeholders in consultations on marine licensing decisions and MSP teams acting as LSI stakeholders themselves in terrestrial spatial planning and other sectoral planning and management processes. For this, the capacity of the MSP team beyond the plan production phase of MSP will be important.

The ESPON MSP-LSI project revealed that, given the inherent complexities involved in land-sea interactions, a focused yet flexible approach to information gathering is important.

The relevant relationship between land and sea to be considered and the scope of the core area under investigation will determine the availability of relevant statistical data. In the main, a qualitative and opportunistic approach to information gathering must be expected. For LSI issues

associated with maritime sectors, however, the ESPON MSP-LSI study has shown that a spatialised adaptation of sector value chains can provide a helpful starting point and structure for information gathering and analysis. It assists in building a picture of the operation of a sector, its spatial footprint and connections. It also enables an assessment of the relative 'stickability' of economic and other benefits within coastal communities and can inform improved planning and management of associated land-sea interactions. The final report of the ESPON MSP-LSI project includes a list of example information sources that can help guide data collection related to LSI involving maritime sectors in MSP.

Developing a 'One Space' territorial perspective should be encouraged to better address the relationship between land and sea.

Finally, the ESPON MSP-LSI study has provided examples of the complex relationship between land and sea, with interactions that extend beyond the coastal interface to cover all land and sea areas. Consequently, developing a 'One Space' territorial perspective can be seen to be key to better addressing LSI issues in MSP and other planning and management regimes. The study has also provided examples of the varied ways in which such a perspective is being developed in different country contexts, reflecting different geographical, historical, cultural, political, legal and institutional experiences. It is apparent that 'One Space' land-sea territorial perspectives are long-standing in some areas. However, both in these cases and elsewhere, the development of maritime spatial plans under the MSP Directive is bringing a new impetus to LSI endeavours. The ESPON MSP-LSI study highlights the value of developing a 'One Space' territorial perspective not just in MSP but also more widely.

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