

MULTI-LEVEL GOVERNANCE AGENDA FOR BLUE ECONOMY AND SPATIAL PLANNING IN THE BALTIC SEA REGION

GUIDING DOCUMENT

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Executive summary

Over the last several decades the spatial planning, which has traditionally been concerned with the development and management of the resources on land, has started to focus on marine waters. This is also true for the Baltic Sea Region due to the insufficiently improving environmental state of the Baltic Sea, increasing need to adapt to and mitigate climate change, refocus to Blue Economy without exceeding environmental carrying capacities.

While countries within and outside the European Union start the implementation phase of their first Maritime Spatial Plans, it is important to recognise the Maritime Spatial Planning practices that would protect the Baltic Sea, its people, heritage and facilitate Blue Economy development and improved cooperation of stakeholders. The Multilevel Governance Agenda for Blue Economy and Spatial Planning in the Baltic Sea Region proposes a way to address the persisting cross-border and cross-sectoral issues within the land-sea interface to thoroughly address land-sea interaction management across borders and sectors through structuring collaboration.

The document is expected to be used by governing authorities as **guidance for facilitating multi-level governance processes**. Section 1 I of the document provides an overview of land-sea interactions and multi-level governance.

SECTION 2 OUTLINES 7 KEY PRINCIPLES OF MULTI-LEVEL GOVERNANCE:

- Fill a governance gap or replace ineffective aspects of governance,
- Use a place-based approach,
- Be cyclical and flexible,
- Engage relevant stakeholders, make certain they are equipped to participate,
- Respect the heritage of the place and the community,
- Plan within a realistic timeline,
- Plan for progress tracking from the outset.

IN SECTION 3 STRATEGIC ACTION BLOCKS LEADING TOWARDS MULTI-LEVEL GOVERNANCE ARE OUTLINED:

- Setting up governance structures,
- Stakeholder identification & discussion process,
- Solutions and implementation,
- Evaluation and learning.

The document is built mainly on the experiences of the “Land-Sea-Act” project, which brought together experts from 6 countries around the Baltic Sea (Denmark, Estonia, Germany, Latvia, Poland, Sweden) who explored and addressed various complexities within the land-sea interface. This document puts these experiences in the context of Maritime Spatial Planning by drawing up a potential pathway towards multi-level governance in maritime contexts and equipping governors with tools that may help achieve integrated governance in Section 3.

The Agenda concludes that the key factors for successful implementation are a shared overall vision, communication, clearly outlined and timed process, transparency and publicity.

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Introduction

Land-sea interactions comprise a range of highly complex interdependencies of fragile ecosystems, valuable natural resources, economic interests, social aspects, and identities at various geographical levels. Handling these interdependencies – also in the interest of future generations – requires policy integration and sound governance.

The Multilevel Governance Agenda for Blue Economy and Spatial Planning in the Baltic Sea Region (henceforth – the **Agenda**) lays out how and to what extent land-sea interactions may be governed in a way which is mindful of the land-sea interface problems, opportunities, and stakeholders. It is a guiding document for practical use in all levels of governance. The Agenda translates the fundamental principles of the ‘Charter for Multilevel Governance in Europe’ into the context of maritime spatial planning and blue economy.

The Agenda is primarily targeted at national and regional authorities dealing with Maritime Spatial Planning (MSP) and marine related activity management and local governments, as well as transnational working groups that can adapt the Agenda to specific circumstances to improve the coordination of action across all governance levels.

The Agenda draws on the conclusions of the ‘Land-Sea-Act’ project of the Interreg programme Baltic Sea Region (see textbox), the 4th Baltic MSP forum in June 2021, workshop 7 of the Forum “Multi-level governance for the coast and the sea – the new normal?” and in other discussions with experts, academics and practitioners. Thanks goes to all those who contributed to these discussions. They ensured a sound basis for the work on the Agenda, anchored in theory and practice, across different countries and different levels of governance.

The Agenda takes into account recent policy frameworks and agendas including HELCOM’s ‘State of the Baltic Sea 2011-2016’, EU ‘Integrated Coastal Zone Management: A Strategy for Europe’, EU directive 2014/89 establishing a framework for maritime spatial planning, and the European Green Deal, the ‘Charter for Multilevel Governance in Europe’, of the European Committee of the Regions, the EU Blue Growth Strategy, the EU Communication “On a new approach for a sustainable blue economy in the EU Transforming the EU’s Blue Economy for a Sustainable Future, the EU Marine Strategy Framework Directive 2008/56/EC.

Based on these overarching policy documents and thematic scientific articles the issue of land-sea interactions was formulated and the potential of multi-level governance to provide a suitable approach to address the issue was explored. Then this base information in combination with results from the Land-Sea Act project (see text box below) was used to draw up a set of principles to streamline a multi-level governance process and then the base process pathway was traced out and supplemented with information on tools proven innovative and useful in the project cases.

THE RESULTING AGENDA DOCUMENT IS STRUCTURED AS FOLLOWS:

- Section 1 lays out land-sea interaction context and how multi-level governance may help manage them.
- Section 2 condenses the principles that should be adhered to in marine space multi-level governance.
- Section 3 lays out a possible path for multi-level governance actions in the maritime context.
- Section 4 describes useful multi-level governance implementation tools.

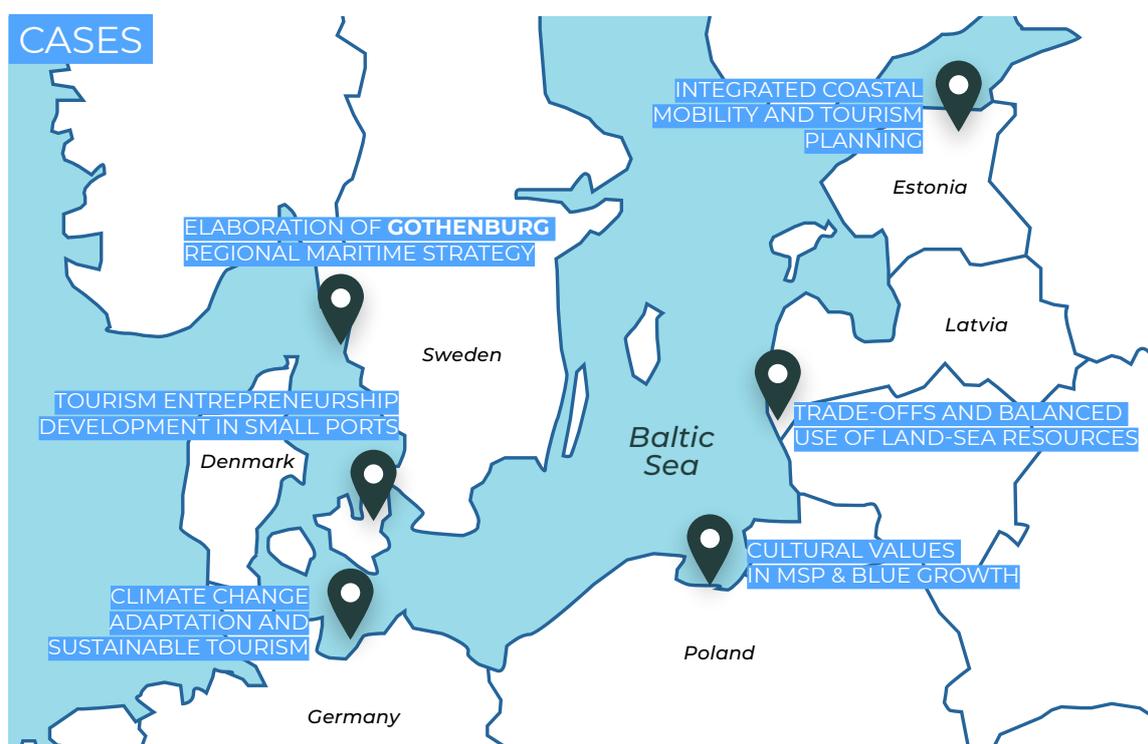
The Land-Sea-Act project

The Interreg Baltic Sea Region programme project #R098 “Land-Sea-Act” brought together stakeholders involved in coastal management and planning, to find solutions to Maritime Spatial Planning and Blue Economy challenges around the Baltic Sea and improve cooperation across all levels (vertically) and sectors (horizontally).

Six explorative case studies (Figure 1) served as a basis for experience-based action framework and analysis of the issues and opportunities within the land-sea interface, brought forth tips, useful methods and tools.

Figure 1.

Case studies of Land-Sea-Act project



The case study in Poland focuses on establishing a robust role of culture in MSP by analysing strategic MSP documents and stakeholder perceptions in the Gulf of Gdansk and Vistula lagoon.

The case study in Denmark aims to supplement the regeneration process of the Holbæk harbour by emphasising the role of art and culture in integrated coastal planning. The case study presents a very unique example of stakeholder engagement and changing the perspectives of planning facilitating bottom-up approach. This initiative is separate from the formal Holbæk Harbour masterplan planning process.

The case study in Latvia explores coastal area of (sub-regional) Southern Kurzeme and is aimed at developing proposals on how to balance offshore wind park development interests with the local community, landscape preservation and continued tourism sector development, by facilitating stakeholder engagement in offshore energy scenario building and integrating ecosystem service perspective in planning processes.

The case study in Estonia focuses on integrated coastal mobility and tourism planning on the sub-regional level. It explored balancing different interests (including heritage) and tensions in enhancement of small harbours and sustainable coastal and marine tourism.

The case study in Germany covers the municipality of Fehmarn. The overarching theme is balancing nature conservation, adaptation to climate change and tourism by organising tourism flows better.

The Swedish case study (regional level) focuses on Blue Economy development, within it the Regional maritime strategy for coastal economy for Gothenburg region was created, analysing demand for space both on land and in marine areas, various business stakeholder views and the way for the region to grow its economic potential.

ASIDE FROM THE CASE-SPECIFIC OUTPUTS, SEVERAL OTHER STRATEGIC AND ANALYTICAL MATERIALS WERE PRODUCED BASED ON ACTIVITIES COMPLETED WITHIN THE LAND-SEA-ACT PROJECT (Read more: <https://land-sea.eu/results/>):

- **Compendium of methodologies** addressing land-sea interactions and development trade-offs.
- **Action Plan “Entrepreneurship and Blue Growth”** giving guidance for daily operations of developers, strategic planners, businesses, and public authorities in maritime regions throughout Europe.
- **Policy brief** on key messages on LSI and Blue Growth initiatives.
- **Synthesis report** for coastal governance.

1

Multi-level governance for land-sea interactions

Key concepts:

LAND-SEA INTERACTIONS – interactions related to dynamic land-sea natural processes such as hydrological and nutrient cycles and climate, interactions between land and sea uses and activities, most of which require support structures on land (fishing, shipping) or are entirely based on land but are inherently dependent on the sea (e.g., coastal tourism). Many of the human activities also place disruptions in the natural processes.

MARITIME SPATIAL PLANNING – the tool to manage the use of our seas and oceans coherently to ensure that human activities take place in an efficient, safe, and sustainable way aiming to reduce conflicts, encourage investment, increase cross-border cooperation, and protect the environment.

INTEGRATED COASTAL ZONE MANAGEMENT – dynamic, multidisciplinary, and iterative process to promote sustainable management of coastal zones. Covers the full cycle of information collection, planning, decision making, management and monitoring of implementation. Strives for informed participation, seeks balance between and integration of relevant stakeholders, sectors, objectives, and policies.

BLUE ECONOMY – encompasses marine-related sectors such as fisheries, aquaculture, coastal tourism, maritime transport, port activities and shipbuilding, and shifts the focus from blue growth to tackling the climate and biodiversity crisis to improve the health of the seas and embrace sustainable use of sea resources to innovate food and energy production.

MULTI-LEVEL GOVERNANCE – collaborative and cooperative way of innovation-focused governance facilitated across all relevant governance levels within and beyond the borders of the governable territory in intersection with non-government stakeholders.

Oceans and seas have long played a crucial role in economic and social development via the trade, migratory, food production and employment opportunities provided by open water and ports. However, water resources and opportunities are not limitless and uncoordinated use may result in irreversible depletion and pose imminent threats to ecosystems and societies alike. Therefore, marine space governance has become an increasingly urgent issue due to the complexity of land-sea interactions where a multitude of fragile ecosystems, valuable resources, resource potentials, economic sectors and communities intersect.

The magnitude of disruption threats in the land-sea interface has thus far evoked supra-national policy responses. However, as the understanding of coastal condition improves, it becomes clear the problem must be tackled on all governmental and societal levels – from organising all governance levels to respond, to also including private, local, and individual stakeholders with opposed and shared interests and influences within the land-sea interface.

The Agenda intends to provide a contribution to the debate on how and to what extent land-sea interactions may be governed in a way mindful of land-sea interface problems, opportunities, and stakeholders.

1.1 Why we need to act

The complexity of land-sea interactions often creates difficult problem-solving conditions. Complexity within marine and coastal territories is promoted by the open system characteristics of water-based ecosystems. While exploration of marine ecosystems progresses, despite technology advances and simultaneous knowledge building, marine spaces still are not understood as well as terrestrial systems. Global water bodies also connect communities through provision of transitional physical resources (food, minerals, energy) and related economic and social (international trade, employment, valued landscapes, tourism) and other opportunities, like energy harvesting. The cross-sectoral interrelated reliance on water systems means that global communities are unified in their susceptibility to any changes in water-based ecosystems. The current water and sea usage habits and praxis rely on an unstable natural balance of current climate, biodiversity, and physical conditions. As this balance is threatened by climate change, so are all communities that are affected by and depend on the land-sea interface.

The urgent water related issues, including resource use crucial to current and future human survival, disregard physical and administrative borders. As hard borders and jurisdictions are determinants of governing resources and spaces, that are functional on dry land, by extension are attempted to be applied at sea. The human incapacity to govern sea (where nature voids borders) with the same rigour as land creates a weak state at sea. Countries tend to apply increased protection of their weak jurisdictions and lean on sovereignty and isolated governance of the contested space.

Exceeding carrying capacity of coastal and marine spaces has resulted in destruction of sea resources on which humanity relies on.

MAIN REASONS FOR THIS (SOURCE: DEMONSTRATION PROGRAMME ON ICZM IN 1996):

- Insufficient understanding about coastal processes and lack of common internationally adopted vision.
- Insufficient and inadequate inclusion of stakeholders.
- Inappropriate, short-sighted, uncoordinated sectoral legislation - creating long term unsustainability.
- Bureaucracy and lack of administrative coordination blocking local, tailored and creative solutions.
- Lack of resources and political support for local initiatives and actions.

As the knowledge on maritime issues grows and international maritime-related issues escalate, the need for policy integration becomes increasingly apparent. This is reflected in the growing importance of Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP) at the European level.

IN RECENT YEARS, A NUMBER OF IMPORTANT EU POLICY DOCUMENTS HAVE STRESSED SIGNIFICANT ASPECTS OF COMPLEXITY IN MARINE AND COASTAL SPACES:

- The Marine Strategy Framework Directive emphasises the role of international cooperation in dealing with marine and coastal issues and the need for addressing land and sea in an integrated way (2008).
- The Blue Growth Strategy (2017) encourages mindful realisation of marine resource economic potential.
- The Marine Spatial Planning Directive outlines a need for separate management of marine space (2014).
- The European Green Deal focuses on environmental safeguarding in the sea among other spaces, includes ensuring the sustainability of blue economy and fisheries sectors (2019).

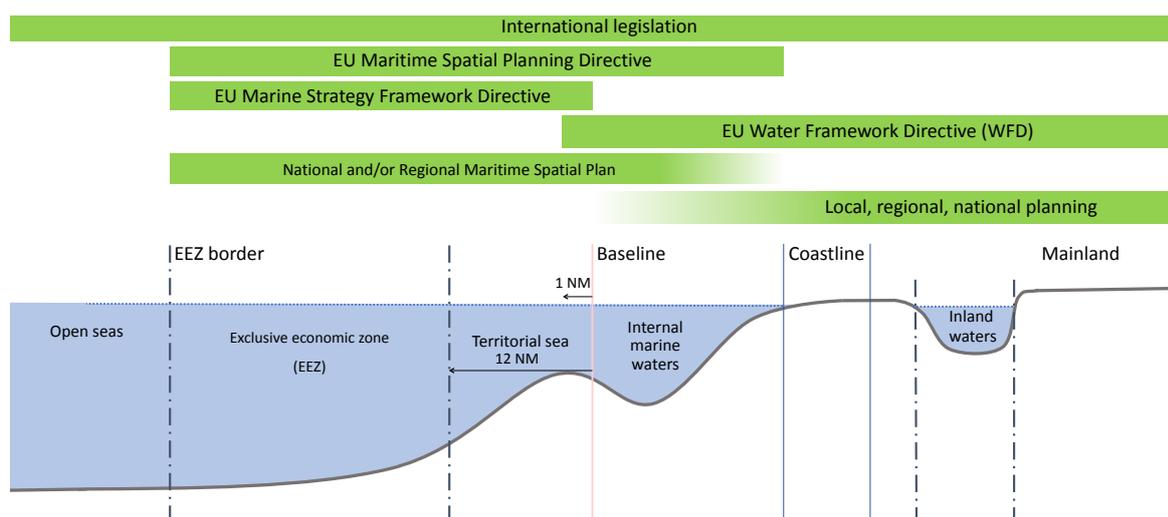
1.2 Why we need multi-level governance

The complexity of maritime spatial planning and Blue Economy comes with highly diverse set of stakeholders involved, covering a variety of different sectors and all levels of governance from sub-local to global.

In this context, the above main policy documents together with other EU policy documents, declarations, and strategies serve as a basis of the land-sea governance implementation. However, at European level it is only possible to outline unifying principles and overarching goals for Member States in related fields and sectors. Due to the subsidiarity principle and national state decision-making sovereignty, in many cases EU interventions are limited to best practice demonstration and action guidance. The EU influence is felt in the Member States on a national level, however, EU level policy influence on a local level is limited due to the hierarchical distance between the EU and local governments - on the local level multiple jurisdictions of regional, national, EU and other legislation and entities meet and overlap (Figure 2).

Figure 2.

Schematic representation of overlap of jurisdictions in marine and coastal areas



As seen in Figure 2 the borders between jurisdictions may be blurry, especially between EU Member States and different level authorities within a single country, additionally legislation distinctively divides up the water cycle systems by applying different legislations to interconnected water bodies/flows – e.g. the EU Water Framework Directive addresses internal and inland water pollution mainly, while the Marine Strategy Framework Directive is concerned with marine waters only despite the fact that all (inland, internal and marine waters) are a part of the same water cycle, contribute to the same ecosystems and transfer the same pollutants.

The central governments of national states represent the highest authorities, that hold a key role in shaping maritime spatial planning. However, there are multiple stakeholders, whose powers, and intricate relationships with each-other and the national government complicate the ability of national level governance to communicate and scale down EU policy directly to regions and localities.

In essence land-sea interactions cannot be addressed by one policy or one stakeholder. Given the complexity of the task at hand it is important to involve all relevant marine and coastal stakeholders directly.

Each stakeholder comes with their own bias due to individual knowledge, interests, goals, resources (e.g., financial, political, legal, informational, education), and the capacities to mobilise these resources. To collaborate it is very important to have a shared understanding among all stakeholder on what the key problems and actors are, and to understand their power relations and capacities to act. This means that marine and coastal territory governance requires the engagement of all relevant stakeholders and their resources on all levels of governance and beyond – on all levels of socio-economic structures. For this appropriate and adaptive capacity should be embedded.

1.3 How to govern with multiple stakeholders

Multi-level governance stands out as a governance approach that introduces more cohesion and facilitates innovation in policymaking by inviting all relevant interdependent public, private and individual actors to the process to promote sustainability, adaptability, resilience and reflexiveness and use of all available knowledge.

THE GOVERNANCE PROCESS WOULD BE SHIFTED IN SEVERAL WAYS BY INTRODUCING A MULTI-LEVEL ASPECT:

- 1) By power devolution from central to local government.
- 2) By increased international cooperation.
- 3) By balancing power sharing between governments and civil society.

This allows for increased ability to identify the needs within the governable place and building capacity for innovations via bringing new perspectives and minds into the process, which additionally contribute to the speed of finding appropriate policy responses. The multi-level governance approach is experimental due to its heightened responsiveness to a multiplicity of stakeholders and the need to look for the appropriate roles for each of them, as well as appropriate engagement points. This means that the still developing uses and various understandings of marine spaces should be flexibly integrated into governance processes.

The exploration of land-sea interactions and issues and theoretical insights into multi-level governance, as well as “Land-Sea-Act” project experiences indicate that multi-level governance may be the most resultative, effective, and beneficial approach to governing highly complex cross-sectoral and inter-territorial issues such as Maritime Spatial Planning and Blue Economy.

The Charter for Multilevel Governance in Europe (henceforth – the Charter) calls to respect the fundamental processes that shape multi-level governance practices in Europe by promoting participation and partnership, involving relevant public and private stakeholders throughout any policy-making process, whilst respecting the rights of all institutional partners. The Charter calls for the creation of collaborative networks, working groups and for connecting political bodies and administration from the local to the European levels and vice-versa, thereby strengthening transnational cooperation.

The Agenda brings the outlined benefits of multi-level governance and the framework outlined by the Charter and the experiences of the “Land-Sea-Act” project to the specific context of marine and coastal governance by providing guidance on implementation of governance that:

- identifies and analyses marine and coastal space ecology and space use conflicts and pursues mediation,
- strives for comprehensively sustainable betterment considering social, economic, cultural, and environmental aspects of both land and sea,
- responsibly allocates governance power to authorities and society, accounts for jurisdictional overlaps,
- efficiently makes use of all related knowledge, resources available at all levels, accounts for governance errors by designing a cyclical and flexible process that allows learning from mistakes.

Further reading:

- Van Assche, K., Hornidge, A.-K., Schlüter, A. and Văidianu, N. (2020). Governance and the coastal condition: Towards new modes of observation, adaptation and integration. *Marine Policy* 112(2020).
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Key principles

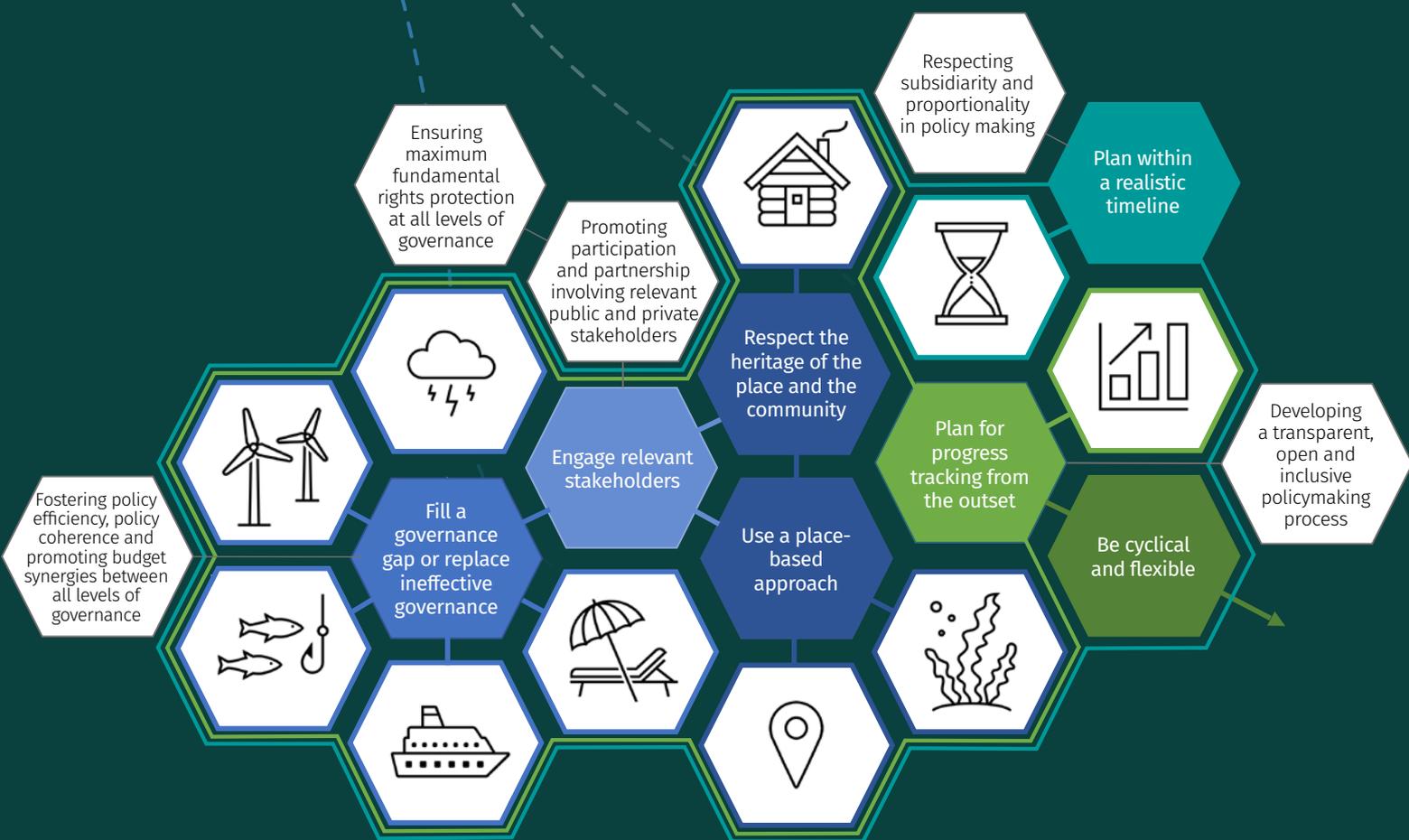


Figure 3.

Source values from the Charter (in grey), key principles of multi-level governance, their interrelations.

Considering the benefits of multi-level governance, the Agenda advocates for comprehensive, inclusive, adjustable multi-level governance processes. The coloured blocks in Figure 3 illustrate the principles guiding multi-level governance and the table below explains these principles. The principles are inspired by the Charter for Multilevel Governance in Europe (see grey blocks in Figure 3) and adapted to the context of land-sea interactions.

Fill a current governance gap or replace ineffective aspects of governance	<ul style="list-style-type: none"> - Multi-level governance is complex and resource-intensive - worthwhile only if done efficiently. - To maximise benefits, all multi-level governance actions should converge multiple sectors, and address what has not yet been addressed/requires a new approach.
Use a place-based approach	<ul style="list-style-type: none"> - The land-sea contexts are shaped by their ecosystems, community, cultural heritage, landscapes – unique in each place, thus, it is crucial to explore them before and during taking action. - While demonstrations from different contexts provide useful lessons, it is important not to transfer action directly. A place-based approach enables new ideas, and suitable adjustments.
Respect the heritage of the governable places and communities	<ul style="list-style-type: none"> - The governance of the land-sea interface ultimately comes down to small places and their communities. Therefore, the engagement of local representatives (e.g., neighbourhood leaders, local blue economy actors etc.) is important. These people have specific knowledge potentially useful in governance. - Each place has its unique identity and unwritten rules, which must be respected.
Engage relevant stakeholders and make certain they are equipped to participate	<ul style="list-style-type: none"> - The process should structure governance processes to engage all relevant stakeholders. Constructive collaboration and governance processes rely on well-informed stakeholders and tailored engagement strategies. - This should be mindful of all who are affected by the issue, are about to be influenced by the solution, as well as anyone interested. - All relevant voices, regardless of their power should be heard and all deliberative materials and processes should be public and well circulated in a planned and controlled manner to ensure that even those, the authorities/leaders are not aware might be interested, could have the opportunity to participate. - Here governing authorities should strive to evaluate every opinion.
Be cyclical and flexible	<ul style="list-style-type: none"> - Intelligent governance processes are often open-ended, as often one issue solved may result in a new issue and a need for a new solution. - Governance and policy are mostly based on assumptions of development and needs. Due to the unpredictable conditions and factors in politics, economy, society, and nature, it is difficult to ensure that any strategy will work as it was intended. - It is always possible to learn to act more efficiently. Sometimes action is slowed by external precondition changes, sometimes a key stakeholder is identified late, etc. Remaining flexible helps find the best solutions within the same process. - All activities should be documented, implementation should be flexible and adjustable, the results of the implementation should be recorded, analysed, and used as a starting point for new governance activities, if necessary.
Plan within a realistic timeline	<ul style="list-style-type: none"> - Deliberative multi-level governance processes are comprehensive and take more time than conventional governance. - It is important to create a realistic schedule, by allocating an appropriate timeframe for stakeholder deliberations and moderating the ultimate solution. - Time planning must account for some prolongations due to the cyclicity principle.
Plan for progress tracking from the outset	<ul style="list-style-type: none"> - Monitoring of changes in baseline variable changes is needed to track progress and identify best practice or shortcomings of the action. - In the marine and coastal settings there is a wide variety of immeasurable values (e.g. beautiful landscapes, community identity), thus it should be considered that both quantitative and qualitative indicators should be monitored.

Further reading:

- Committee of the Regions (2014). Resolution of the Committee of the Regions on the Charter for Multilevel Governance in Europe. [Online]. Available at:<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52014XR1728>.
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3

Strategic
steps and
actions
towards
marine
multi-level
governance

As in every planning process, first an initial idea or goal must be set. It can be a new development idea or a problem which needs to be solved. The initiation of the process may come from any interested institution, organisation, stakeholder group or person.

FOLLOWING THE KEY PRINCIPLES AND KEY LAND-SEA INTERACTION CONSIDERATIONS, FOUR STRATEGIC STEPS ARE DEFINED:

- Scoping and setting up governance structures,
- Stakeholder involvement,
- Solutions and implementation,
- Evaluation and learning.

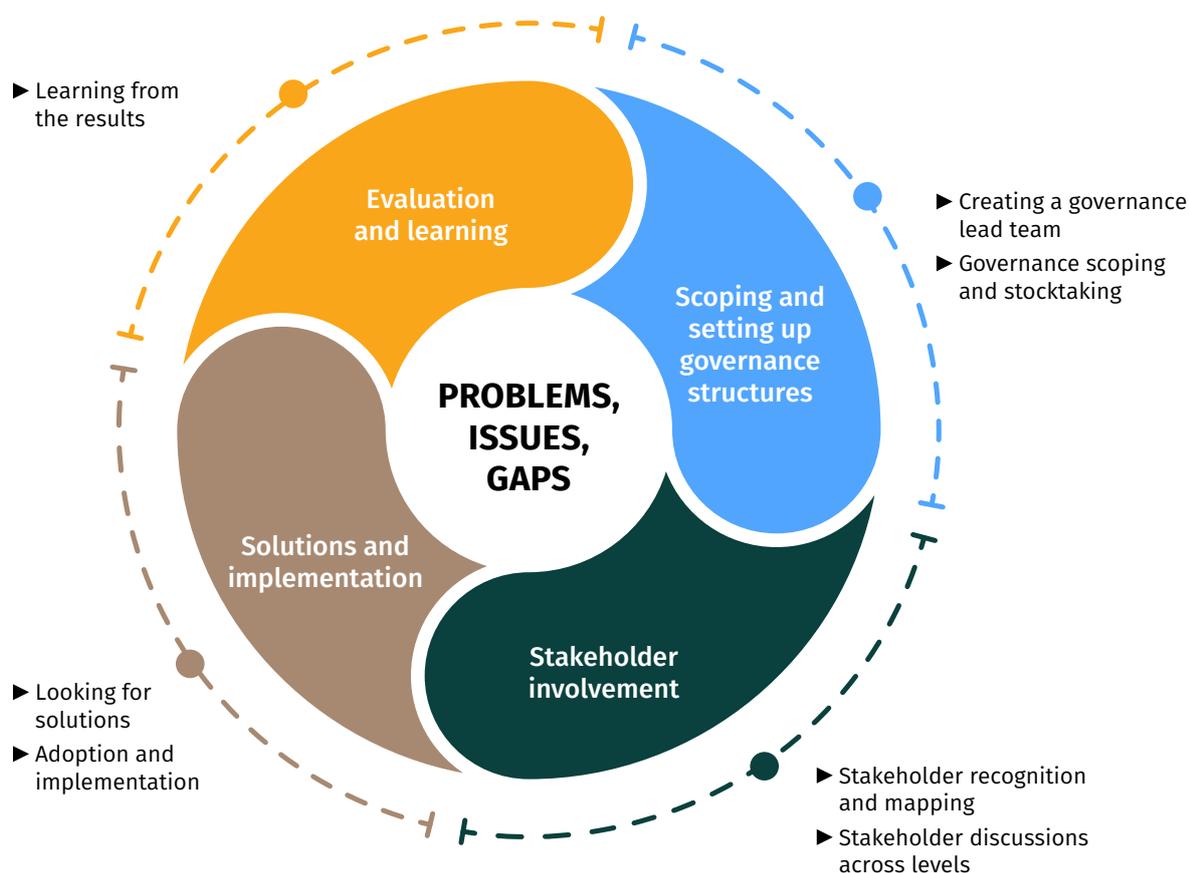
The steps are supported by actions, which may be comprised of numerous activities. These guidelines outline the general path of actions to comprehensively implement a system of multi-level governance. This path is not prescriptive, as during the planning process the prevalent situation and/or context may change. Some activities may be parallel to each other or follow each other in a different order, depending on the specific needs of the action, its' implementation level, the location, the land-sea interactions in question and other contexts. There is no universally correct approach to using the multi-level governance process in managing land-sea interface in the Baltic Sea region, as there is a considerable diversity of multi-level institutional structures and planning systems, as it was demonstrated in the project case studies.

Similar to the activities described in this section, the tools, methods and approaches described in this and the next section need not be assigned to a specific order or action, as the same tools can be used in multiple actions. This allows to follow the principle of cyclicity and flexibility throughout the multi-level governance process.

The following picture illustrates a path for building the multi-level governance process and the inter-connections between steps, actions and activities.

Figure 3.

Strategic steps and actions in multi-level government process.



Examples of a core idea and goal, from Land-Sea-Act case studies:

Sweden: Developing a regional maritime strategy for sustainable development of coastal economies by improved cooperation and innovative methods.

Germany: To create positive impacts for the Fehmarn Island by developing a set of climate change mitigation and adaptation measures and avoiding spatial conflicts between tourism and nature.

3.1 Scoping and setting up governance structure

Action:

Creating a governance lead team

Aim:

Relying on a common, joint goal, to find out who and what entities at national, regional, local level are responsible for governing the issue at hand and have the legislative power to address it (mandate).

Activities:

- 1) Building a conceptual clarity on a shared view of land-sea interactions as a concept of the issue that should be raised.
- 2) Mapping key actors and their knowledge, roles, and mandates in relation to the problems/issues to be addressed.
- 3) Development of a list of relevant issues and interactions.
- 4) Creating a network across institutional and sectoral levels.
- 5) Building a governance lead team, including most relevant actors and with vested interests in the issues.
- 6) Clarifying jurisdictions, responsibilities, and planning mandates.
- 7) Aligning an initial timeline.

Tools and methods:

- Communication across the levels and sectors.
- GIS-mapping of maritime businesses.
- Interviews.
- Cross-border consultations.
- Forums for regular contact.
- Workshops, seminars.
- Cross-sectoral consultations.

Notes:

- Maritime spatial planning is cross-sectoral everywhere and works within a joint land-sea interface. The governing institutions with mandate to govern and stakeholders with systematic powers related to the issue must be considered.
- In some cases, the informal stakeholder process may be started long before they are officially invited to participate. A kick-off event, like a conference or another large public event with open and inclusive participation of different stakeholders, may be considered.
- Organising the processes that manage land-sea interactions should relate to existing governance processes, instead of creating parallel new government structures.
- The governance lead team needs to have a shared understanding of the 'mission' and 'character' of the multi-level governance processes which can serve as common framework for their work.
- It is crucial to ensure that the lead team has the practical means to carry out a governance action: are able to govern, to create the necessary networks, to access knowledge and information, can reach politicians, sectoral experts, planners, and other actors.
- All land-sea interactions dimensions - social, economic, environmental should be accounted for in a way that considers the full range of relevant actors is represented and included.
- Marine and coastal governance shall become flexible by departing from its traditional hierarchical approach and instead striving for collaboration in collective decision-making.

Example: Sweden

A cooperation platform was created, gathering actors from academia, public and private sector. It is led by the Region of Västra Götaland and works within the regional maritime strategy focus areas: maritime operations, marine biotechnology, marine foodstuff, tourism, marine energy and marine governance, where maritime and coastal planning is an important factor.

The regional maritime strategy for the Gothenburg Region contributes to developing a local understanding of the preconditions of the regional blue economy and the importance of developing maritime clusters, collaboration between various economic sectors and scientists, as well the public and private sector, it is a cooperative organisation uniting thirteen municipalities in western Sweden.

Example: Denmark

The driving force of old Holbaek harbour revitalisation and development was Holbaek Municipality, according to the Holbaek City and Region Zealand development plans and strategies.

Action:

Governance scoping and stocktaking

Aim:

To clarify what issues existing policy works toward addressing and what can be built on the existing foundation. To find out within what policy framework the issue has arisen and to identify a possible governance gap in this framework.

Activities:

- 1) Defining the jurisdictional scope of actors involved to cover the issue and the potential area of action.
- 2) Creating a joint comprehension of issue-related policy for the entire thematic scope.
- 3) Setting up the time frame and format of the governance process.
- 4) Formation of a work team in an efficient, fair and transparent way.
- 5) Background policy review.
- 6) Mapping of basic stakeholder needs, interests and values within different sectors, both in marine and coastal contexts.
- 7) Building communication channels and planning processes that reach across borders, sectors, and levels.
- 8) Capacity building of work team, authorities and other actors.
- 9) Identifying what information and data is necessary, creating an information exchange platform.
- 10) Developing and enabling cross-border knowledge exchange, as well as between national and local planning level.
- 11) Analysing issues related to information, data needs, contradictions, preconditions from all aspects – environmental, socioeconomical, cultural etc.
- 12) Identification of environmental, socio-economic, and technical interactions.

Tools and methods:

- Thematic clustering of the topics raised in the scoping meetings.
- Draft scoping report on discussions with actors and stakeholders.
- Data-sharing tables, related to issue topics.
- Learning by doing and doing by learning.
- Workshops to share knowledge.
- Using guidelines and best practice examples.
- Use of GIS software.
- Incorporating different types of spatial data (including physical, social, economic, and ecological data).
- Guidelines or checklists to support the government planning process.
- Cross-border consultations.
- Forums for regular contact.
- Fieldworks for data collection, observations, and on-site interviews.
- Reviewing existing plans and strategies.
- Reviewing statistics and other available data sources.
- Mapping of potential conflicts (coastal and marine).

Notes:

- This action and the activities it entails, is closely linked to the previous action, as whatever entity initiates the governance action and attempts to assemble a governance lead team, it is important to engage other issue-related governors in scoping the issue fully by adding on multiple perspectives, competencies, as well as jurisdictions.
- This action should be carried out by the governance lead team. Being able to create a joint network of actors, who are able to create links, including local people of the issue area, as well as actors with appropriate scientific knowledge and those who are able to ensure the action is in line with higher level governance.
- The governance lead team may not be able to rely on their inside knowledge for full stocktaking, therefore the networking to share knowledge and skills ensures that there are appropriate and multiple paths of information gathering with access to unique information.
- A scoping phase would show a long list of interests, interactions, and issues. Contextual factors, such as development trends, societal aspect, nature, landscape and historical values, the history and spirit of a place can play an important role for how the LSI dimensions play out into the government process.
- Knowledge includes not only data, but also awareness and management of uncertainties and knowledge gaps, as well as ongoing methodological development four main elements: environmental LSI processes, human activities, and related opportunities and risks.
- Specific land-sea interaction related data and knowledge needs include:
 - understanding the local / regional characteristics of land, coast and sea and their interrelationships.
 - a precise understanding of sectors and their needs, especially new sectors such as offshore wind energy production; it takes time to develop that knowledge.
 - knowledge on the terrestrial footprint of marine activities and vice versa (ecological, social, and economic impacts,
 - high resolution, locally specific knowledge on local uses, needs, values and trends for local and regional level plans and strategies.

Example: Latvia

The cross-scale and cross-sector coordination/cooperation (or multi-level governance) has been applied in the case of Southwestern Kurzeme coast, where marine spatial planning coordination working group was established, involving different ministries and other national authorities, coastal municipalities, and NGOs.

In the stocktaking stage relevant information on tourism and offshore wind energy development potentials was collected, as well as information on ecosystem and landscape values, including:

- review of offshore wind energy and coastal tourism development policies, municipality plans, conditions set by the national Marine spatial plan,
- survey on coastal visitors, their impact on environment and coastal public infrastructure,
- field works to collect information for assessment of landscape qualities and recreational potential,
- interactive stakeholder workshop to discuss the local LSI related challenges,
- online survey to collect information on most popular recreational sites (participatory GIS method).

3.2 Stakeholder Involvement

Action:

Stakeholder identification and mobilisation

Aim:

To identify, who affects or is affected by the governance process or its outcomes. To find out the stakeholders, who should be involved, their possible role and engagement timing.

Activities:

- 1) Elaboration of stakeholder involvement strategy.
- 2) Organisation of issues related public information campaigns.
- 3) Identifying and mobilising stakeholders relevant for the issues.
- 4) Mapping knowledge and information gained from different stakeholders.

Tools and methods:

- Public meetings, special thematic events.
- Mass media – TV, radio, local info-sheets.
- Targeted questionnaires, interviews.
- Thematic meetings and workshops.
- Focus group discussions.
- Online surveys.
- Participatory GIS tools.
- Inspirational catalogues.
- Art as a tool.

Notes:

- A key factor for success is a stakeholder involvement strategy – outlining who should be invited, why, how, and when involvement should take place etc. Such strategy would be dependent on each specific situation.
- The number and fields of potential stakeholders in general and of specific relevant actors should be scoped and mapped. Mapping can be done by identifying who provides the resources for a specific governance action, who is capable of mobilising resources and who is imperative due to other societal structures; and who, on the other hand, is affected by these powers.
- Scoping stakeholders allows to plan each stakeholder's role and responsibilities in various multi-level governance process stages from finding solutions to implementation and evaluation. Stakeholder groups can be formal or informal.
- There is no single absolute way to conduct stakeholder management, a foundation for it is a clear time frame, understandable role distribution, recognition of contribution, transparency and publicity of documents and decisions. Before engaging stakeholders, solid preparatory work should be done, to avoid discouraging stakeholders so they do not lose participation momentum.
- Key to a successful process is also to translate land-sea interactions into a meaningful and tangible message for stakeholders, and to communicate the issues in a way that suits their familiar fields and specific interests. The process also needs to be designed in a way that enables solutions being brought to the right level of political decision making.

Example: Poland

In the case study in the Gulf of Gdansk and the Vistula Lagoon semi-structured interviews and interactive stakeholder workshops with various groups of selected stakeholders and local communities were used, to learn about locals' relations/perceptions with/of the sea and to determine sites of cultural, historical, and social importance. All the information needed to map culturally significant locations was collected in 50-semi structured interviews, covering most important stakeholder groups, information was also gathered from 30 workshop participants.

Action:

Stakeholder discussions across levels

Aim:

To identify diverse stakeholder needs, interests, challenges and to build starting platform for joint comprehension of the issue.

Activities:

- 1) Developing a communication strategy.
- 2) Spreading issue-related knowledge for creating a joint comprehension.
- 3) Creating a public discussion and information exchange platform, providing interactive collaboration.
- 4) Cross-level and cross-sectoral discussions within target groups for possible solutions for concrete issues.
- 5) Providing a set up for stakeholder collaboration and knowledge and data availability.
- 6) Identification of environmental, socio-economic, and technical interactions.

Tools and methods:

- Thematic workshops.
- Brain storming.
- SWOT analysis.
- Scenario building.
- Prognostication and trend building.
- New digital techniques (like online GIS platforms).
- Feedback by stakeholders.
- Interactive workshops.
- Interviews, online questionnaires.
- Capacity building and social learning through interactive stakeholder workshops.

Notes.

- This action should provide background information for different solution options and their eventual evaluation/impact assessment information drawn up to a larger circle of stakeholders.
- It is very important to address and mobilise the identified stakeholders, setting their roles, tasks, and timing clearly, especially if more long-term engagement is needed.
- The stakeholder mapping and evaluation done during previous actions should aid in shortlisting potential parties for further deliberations, however, at any point (for example, after drawing up and evaluating some solution-options) new stakeholders or stakeholder groups may emerge, therefore the option deliberation process should be designed in a flexible way, to allow open-engagement and facilitate non-specialists.
- All engaged stakeholders should have access to information on all drawn up potential solutions, as well as any impact assessment and anticipated effects to continue the process transparently. All information should be easily accessible, understandable, and clear for everybody.

Example: Estonia

Meetings with all four municipality officials of Middle section of the Northern coast were organised to understand their needs, as municipal general plans are also being developed. Interviews held with small-craft harbours, other stakeholders (surfers, Estonian Heritage Board, MSP planners) and community groups of the case area reflected on the ongoing MSP process, recreational economies, tourism, mobility, accessibility, second home, community, maritime culture, landscape, heritage, governance, human-nature interactions, nature protection, everyday practices, perceived values, and articulated trade-offs.

3.3 Solutions & Implementation

Action:

Looking for solutions

Aim:

To find the optimal solution options that would be the most rational, beneficial, efficient, and acceptable to all stakeholders.

Activities:

- 1) Identifying possible solutions.
- 2) Assessment of impacts.
- 3) Comparison, evaluation of solutions.
- 4) Discussions on solutions within target groups.
- 5) Elaboration of final proposals.
- 6) Choosing of the most optimal, cross-discussed, and supported solution.
- 7) Elaboration of recommendations, practical measures for solving the detected problem.
- 8) Evaluating potential effects.
- 9) Returning to previous actions, if necessary - to make corrections.

Tools and methods:

- SWOT analysis -opportunities and threats (risks) assessment.
- GIS based tools.
- Visualisations of the proposed optimal solution.
- Modelling, (flood model, ecosystem service cascade model, Spatial/ ecological model.
- Assessment of cultural heritage, landscape quality and visual impact, socio-economic impact.
- Environmental Impact Assessment (EIA).
- Strategic Environmental Assessment (SEA).
- Issue related monitoring framework.
- Targeted and measurable indicators.

Notes:

- The previous actions have focused on resource and knowledge gathering to establish the “what”, “where” and “who” of the governable entity. This action would be the beginning of working out the “how”, as it marks a more rigidly set goalpost – decision taking and implementation. At the same time, the activities, taken in the previous actions can still to be in progress here, as any new information coming into the governance action knowledge pool, should be accounted for the land-sea interface complexity.
- It has to be considered that in the public sphere, the question is often about who has or gives the mandate to do what in rather flexible multilevel governance processes. While all players certainly only can act within their ‘room for manoeuvre’, it might be worthwhile to encourage them to use that to every extent possible rather than waiting for orders from a higher authority.
- The essential point of successful multi-level governance process is transparency in decision taking at any stage of the process. The documents should be easily accessible, clear, short, concise, and (preferably) publicly available.

Example: Germany

A SWOT analysis was undertaken for the island of Fehmarn, focusing on the dimensions of sustainability and climate, spatial conflicts, and blue economy. Regarding these dimensions, it was turned to sustainable targets, such as water saving, reduction of temperature in hotspots, establishing a free public transport on the island etc.

This Case study additionally illustrates how the potential impact can be managed and measured.

Depending on the issue, for assessment of actions the measurable, easy understandable indicators were adapted. For tourism - proximity to car-parking or bus stop, proximity to toilets, beach width – wide, etc; for climate related impact - average temperature and percentage of sealed surface, variability of water consumption values.

Action:

Adoption and implementation

Aim:

Direction of process (or project) towards implementation legally and technically.

Activities:

- 1) Identifying governance levels and institutions with mandate to adopt solutions.
- 2) Establishing an agreement on concrete solutions.
- 3) Practical implementation.
- 4) Development of practical tools and measures for governing land-sea uses.

Tools and methods:

- Information, transparency, and publicity.
 - Local and detailed plans.
 - Education and new skills.
-

Notes:

- Once the plan for change/solutions is completed, it requires further government approvals, which sometimes can lead to a longer process of evaluation and revision.
- A built, deliberated, and perfected model that is cross-checked, still needs to be officially implemented. This action again would be the responsibility of the governance lead team, as among them are the stakeholders with the legislative resources to implement the solution legally and technically.
- The materialisation of this action would look differently in different contexts, it would also depend on what format of previous governance actions (it could be prescriptions or regulations for spatial development plans, as well action plans and practical implementation projects).
- In each applied case it should be identifiable as a principal point where the deliberated and decided governance action/solution is put into motion to start practically moving toward the goals determined in taken solutions (e.g., legislation is approved, funding is released for a specific project etc.).
- It is important that temporary (often project-based) initiatives of coastal planning are supported by continuous processes, which allow the accumulation and realisation of acquired know-how about sustainable marine spaces.
- Once the plan is approved, the governance lead team is required to facilitate the monitoring of the implementation of the plan, identifying management and practical solutions with stakeholders, depending on responsibilities, other administrative roles (such as issuing licenses, building permits etc.)
- Well-established and moderated collaboration mechanisms should be in place to ensure true engagement in the implementation phase in the context of multi-level governance.

The Land-Sea-Act case studies do not include implementation, evaluation, and review stages, as the case studies are not a part of any formal planning or governance process, but rather project-based activities, exploring possible approaches for dealing with various land sea interactions. All the case studies are built on stakeholder engagement throughout the planning process, thus involving local knowledge and stimulating social learning. **However, all findings, tools, methods, created networks and results from the case studies should also be used in future planning processes in practical implementation.**

3.4 Evaluating & Learning

Action:

Learning from the results - experience recap, exchange and use of new information in adjustments

Aim:

To evaluate results of the whole process, identify failures and gaps, adopt positive experience and tools for further use in new governance initiatives.

Activities:

- 1) Evaluation of the achievement of intended results and other relevant (desired and undesired) outcomes.
- 2) Creating a structure that allows reflection, learning and adaptation of experience.
- 3) Collection of information, data, tools, methods, and links for future initiatives.

Tools and methods:

- Learning by doing & doing by learning.
- Learning from mistakes.
- GIS based tools.
- “Mission-oriented approach’.
- “Impact pathways’ approach.
- Indicators.

Notes:

- The purpose of evaluation and learning is to reflect and improve the multi-level governance process.
- Clarifying responsibilities in the early stages of action helps determine, who should do the evaluation, as it could be carried out both by the work team as well by the governance lead team, depending on the issue.
- Evaluate what has worked and what has not and adapt processes and institutional framework to accommodate recurrent needs.
- Learning from mistakes and failures is valuable, although it is better to learn from the mistakes of others.
- Within the performed multi-level governance action these lessons and monitored data should aid in cyclically perfecting governance – depending on the issue and context.
- It may be useful to make a repeated systematic review of the governance scope – to see if the problem conditions have changed (a new related issue has arisen) and more changes to governance action should be implemented accordingly.
- The gained knowledge and practice-based solutions can be up-scaled and implemented in other processes and projects.
- Effective evaluation will review the content of the plan, the planning process, how well a plan is working and its overall impact (effectiveness, satisfaction, etc.). The results may provide the basis for learning that can feed into future plans.
- Sometimes the reviews could show how the wider context has changed, which may call for revisions in the second round of planning.

Example: Latvia

In evaluation of Land-Sea-Act case study in Southwestern Kurzeme coast issues, several important conclusions and recommendations were prepared, concerning the applied approach and methods.

- The case study demonstrated that ecosystem service assessment is a suitable method to integrate multiple economic, social, and ecological values that need to be considered in complex multi-level decision-making situations such as planning coastal areas.
- Stakeholder engagement is a key tool that can be further supported via new digital techniques like on-line GIS platforms enabling interactive collaboration between planners and stakeholders.
- The approaches and methods tested and developed within the case study can be replicated in other parts of the country at regional, as well as national level and on the scale of the Baltic Sea Region. They can be also applied for addressing different land-sea interaction issues, particularly for addressing various socio-ecological land-sea interactions, including impacts of new sea uses (like aquaculture farms, cables, ports etc.) on coastal ecosystems, fish resources, cultural heritage, tourism, and well-being of coastal communities.
- The main limitations of the approaches tested by the case study are related to scarcity of data and knowledge on structures and functions of marine ecosystems, lack of knowledge about cumulative impacts of different pressures caused by construction of offshore wind parks (underwater building).

4

Tools and methods supporting actions

The Land-Sea-Act case studies contain a multiplicity of concepts, methods, practice-based interventions, and data registers in engaging with the dynamics of coastal governance. Various tools and methods, which were tested, illustrate how land-sea interactions and different development trade-offs in coastal areas can be addressed within spatial planning processes at different planning stages, levels and contexts. This part includes interesting and innovative tools and methods (mapping of interests, scenario building, digital models) to encourage the readers of the Agenda to be creative, as these methods and tools can be used for different purposes for multiple actions and at any stage of multi-level governance process.

THE EXAMPLES ARE ARRANGED IN ACCORDANCE WITH THE STRATEGIC STEPS OF THE MULTI-LEVEL GOVERNMENT PROCESS TAKEN IN LAND-SEA-ACT CASE STUDIES:

- Scoping and setting up governance structures - mapping interests,
- Stakeholder involvement - scenario building, approach to stakeholder involvement,
- Solutions and implementation – digital tools, ecosystem service approach, SWOT analysis.

It should be noted that many of the tools and methods can be used in different steps and actions, depending on the context and specific issues. For example, scenario building can be applied for carrying out Stakeholder discussions across levels, as well as in Looking for solutions. The same refers to the SWOT analysis, brainstorming, focus group discussions, workshops etc.

As for digital tools, applications, GIS platforms, communication systems and technological tools – these can be used in every multi-level governance process step and action.

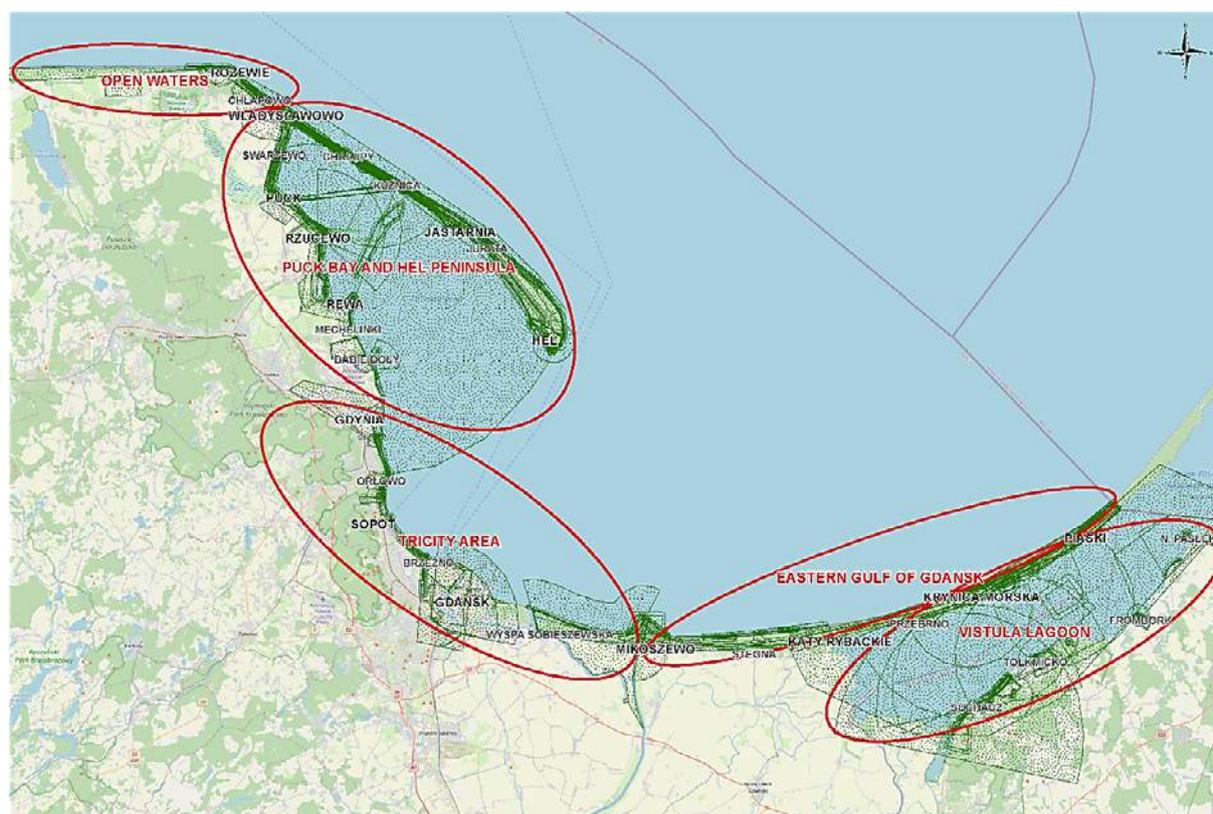
4.1 For scoping and setting up governance structures

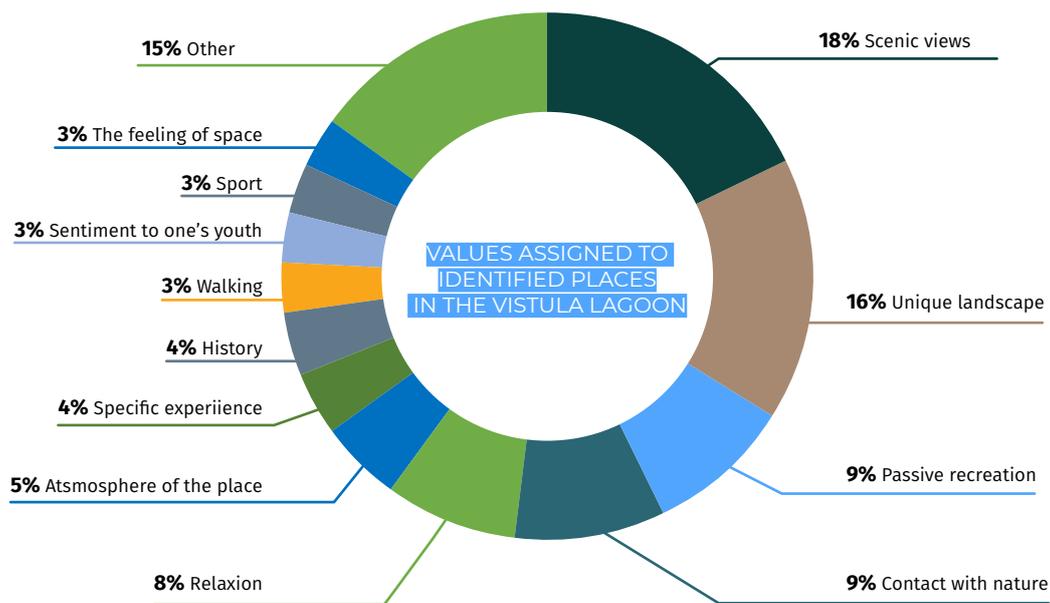
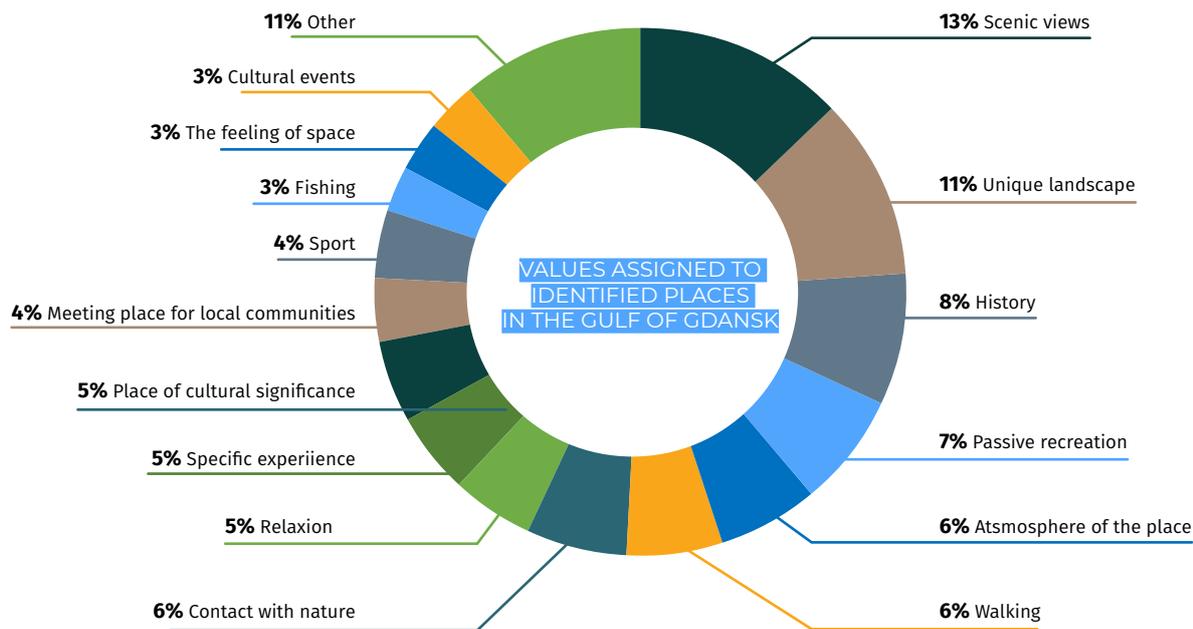
Mapping interests in the Polish case study (Gulf of Gdansk)

In the Polish case study identification of culturally significant areas, based on interviews with local people from coastal communities, was the core of the marine spatial planning support framework. The framework aims to assist marine and coastland planners in adopting a wider approach to marine and coastal cultural values. Mapping of different stakeholder interests additionally highlighted the potential spatial conflicts. By employing such an approach, the social sustainability of the coastal communities may be enhanced, and the potential of local cultural values could be efficiently used for enabling development of the Blue Economy in the most appropriate way considering land-sea interactions.

Figure 4.
Identified clusters of culturally significant areas
(Source: Gulf of Gdansk area Land-Sea-Act case study)

MAPPING CLUSTERS OF CULTURALLY SIGNIFICANT AREAS





Mapping interests in the Swedish case study (Gothenburg region strategy)

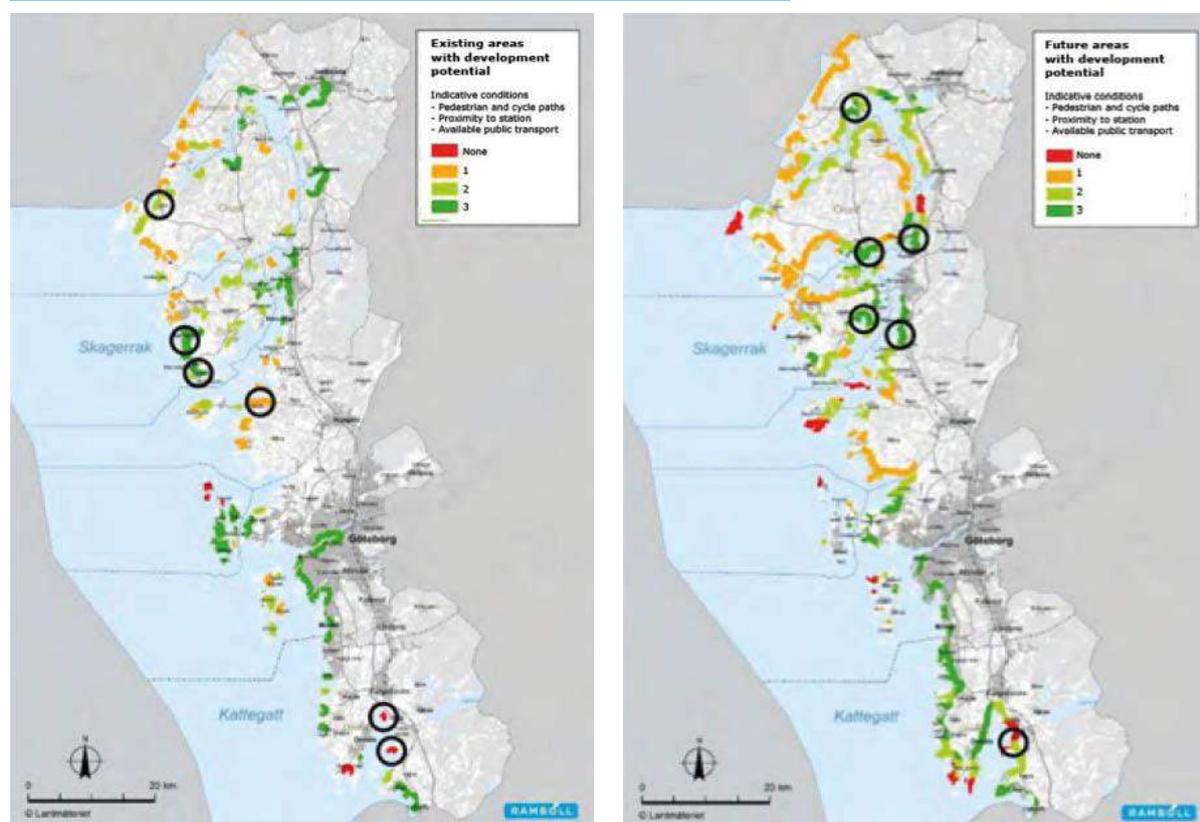
The Regional maritime strategy of Gothenburg region (Sweden) was formulated to plan towards shared interfaces between land and sea. In the collaborative project “Inter-municipal coastal zone planning”, a background report was produced with accessibility to the coast from the perspective of leisure and tourism as the core theme. In this work, GIS-based accessibility analyses were used to map conditions along different parts of the studied coastline.

Figure 5.

Existing and future areas with development potential

(Sources: Gothenburg region’s Strategy Land-Sea-Act case study; <http://goteborgsregionen.se/>)

MAPPING OF LEISURE AND TOURISM BUSINESS DEVELOPMENT AREAS



Mapping of areas with current potential for development was based on target points on the coast and created a buffer of 1 km around the points. The accessibility of these points for pedestrians, cyclists and public transport passengers was compared to identify which places could have development potential.

Mapping of sites with future development potential is the inverted version of the coastline (without mapped target points within 1 km distance), weighed against the same accessibility indicators.

4.2 For stakeholder involvement

Scenario building in the Estonian case study (Middle section of Northern coast)

In the Estonian case study of the Middle section of the Northern coast development, the discussions of future trajectories were based on thematic scenarios. In four exploratory scenarios the possible impacts from various coastal tourism development aspects were presented by illustrating expected changes in coastal landscapes in each of the scenarios. This approach made development issues more understandable and interesting for a wider range of stakeholders, especially local people, including schoolchildren, who were involved in the scenario building process. Collaborative visualisation and surveying for testing the scenarios provides a good layout of implications for further applications in coastal governance.

Figure 6.

Result of collaborative scenario building and visualisation

(Source: Middle section of northern coast Land-Sea-Act case study)



SCENARIO BUILDING:

The artist illustrations would give a holistic perception of the landscape appearance and driving factors even without reading the paragraph concerning the respective scenario

Scenario building in the Latvian case study (Southwest Kurzeme coast)

A target-seeking scenario method was applied to explore alternative pathways or options for offshore wind park development within the case study area. During a scenario building workshop, four alternative scenarios for achieving “agreed-upon future targets” for offshore wind energy production and sustainable tourism development were developed by mixed stakeholder groups. Stakeholder participation was welcomed during an interactive face-to-face workshop through the use of a GIS based platform - the Land-Sea-Act Map explorer.

Participatory target-seeking scenario building methods allow to explore different development alternatives and spatial options, considering stakeholders views and local knowledge, supports capturing multiple and contrasting views on how to reach the goals as stakeholders are involved in the co-design process of the future.

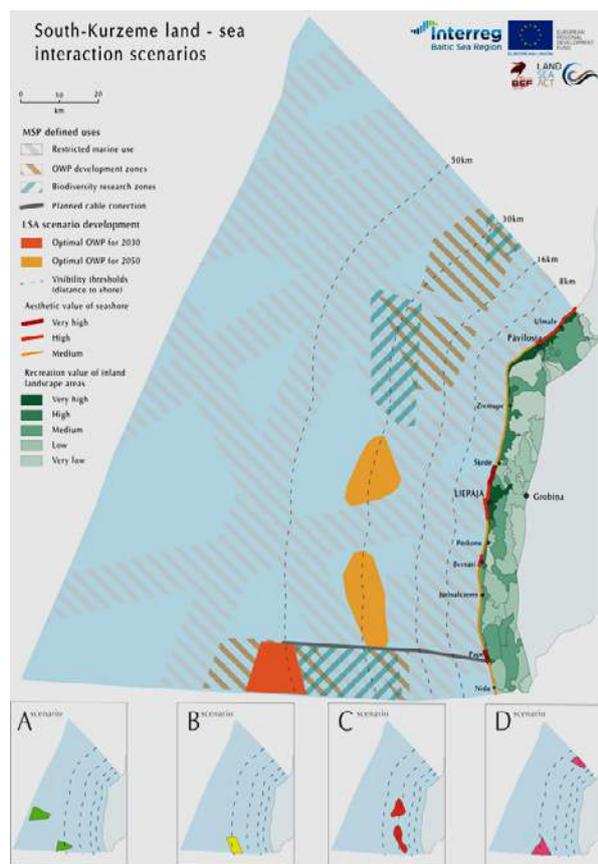
Combining scenario building methods with assessing impacts on ecosystem structures and services enables integration of ecological and socio-economic aspects in comparing scenarios, thus supporting more informed and balanced decision making.

Figure 7.

Visualizations of spatial scenarios and the proposed optimal solution

(Source: Southwest Kurzeme coast Land-Sea-Act case study)

BUILDING SCENARIOS OF COASTAL-MARINE CHANGE



THE IMPACT OF POSSIBLE OFFSHORE WIND FARMS DEVELOPMENT SCENARIOS WAS ANALYSED

- on ecosystem structure,
- ecosystem service,
- and human well-being perspectives.



Using art as a tool for involving stakeholders in the Danish case study (Holbæk harbour area)

Art as a tool for involvement and integrating stakeholders in town waterfront planning was highlighted in Holbæk harbour area case study (Denmark). The role of art was mobilised through reflexive practice of various dialogs, events, exhibitions, catalogues. The local knowledge on marine cultural heritage was promoted via seasonal activity spaces, events, and transient measures like permission for wooden boats docking free of charge in Holbæk harbour. The info-platform Land-Sea Art (<https://land-sea-art.eu/>) was generated to give planners, artists, event organisers, entrepreneurs and other stakeholders the practical input and inspirations on how art can be used as a mediator to create liveliness, activities and business in the interfaces between land and sea.

As this approach is pointed at the cultural aspects of land-sea-interactions, it would encourage to look for innovative ways of involving and integrating stakeholders in other future projects.

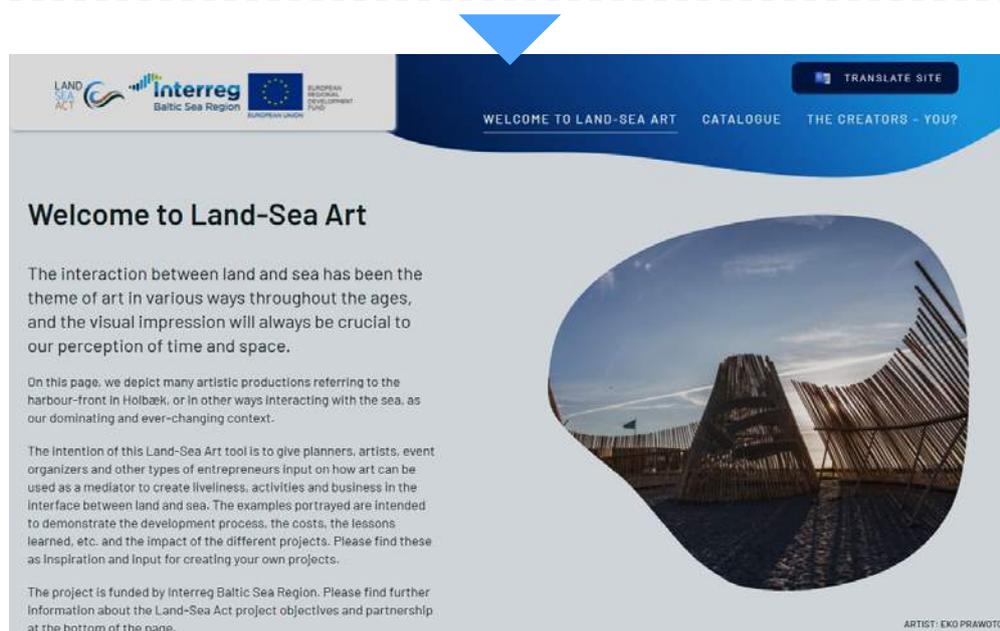
Figure 8.

The info-platform Land-Sea-Art tool

(Source: Holbæk harbour area Land-Sea-Art case study)

DEVELOPMENT OF HOLBÆK PORT FROM INDUSTRIAL PORT TO THE ACTIVE, OPEN AREA

TARGET GROUPS: residents, companies, shops, restaurants, commercial fishermen, cultural and experience actors, educational institutions, interest organizations, guests, tourists and citizens using the port area



LAND SEA ART - AN INTERDISCIPLINARY COLLABORATIVE AND COMPLEX PROJECT A WITH FOCUS ON SUPPORTING THE GROWTH OF THE NEW BUSINESS OPPORTUNITIES IN THE HARBOUR.

4.3. For solutions and implementation

Coastal flooding simulation model in the German case study (Fehmarn Island)

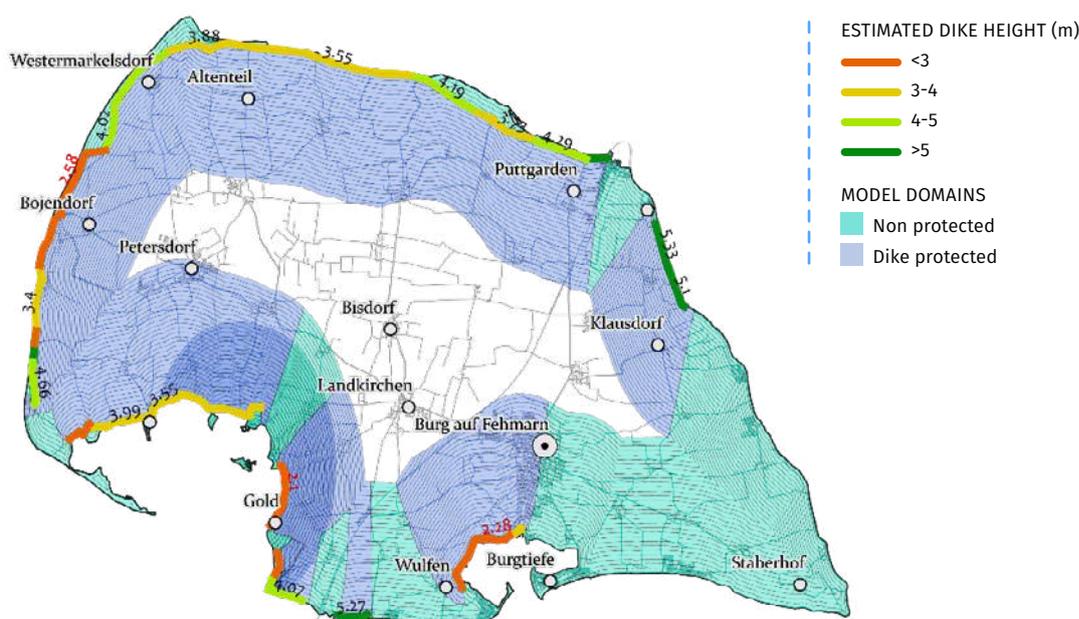
A simple coastal inundation model for Fehmarn was programmed, to simulate the future risk of coastal flooding for evaluating the future risk of coastal flooding and determining necessary measures for impact mitigation. In the model two flooding domains are differentiated, one where the surge can flow freely in the landscape as there is no dike protection, and a second one where the surge flow is constrained by the existence of dikes. The model shows which coastal areas would be flooded, thereby helping to take decisions on protection of these areas by construction of new dikes or re-construction of existing ones, as well as for planning land use and activities.

Figure 9.

Estimated dike height and different domains of the flood model

(Source: Fehmarn Land-Sea-Act case study)

COASTAL FLOODING SIMULATION MODEL FOR CLIMATE CHANGE ADAPTATION



CONCEPTUAL FLOODING MODEL

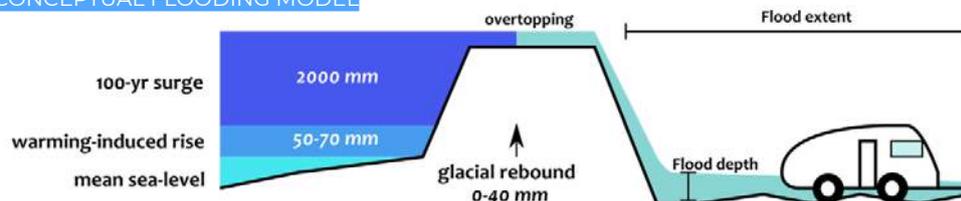


Illustration of flooding process in the established model for Fehmarn

(Source: BEF)

INCLUDES:

- Effect of additional sea level rise on storm surge height.
- Glacial Isostatic Adjustment.
- Physical representation (height and location) of dikes.
- Hydraulic connectivity of landscape.

EXCLUDES:

- Flood speed and intensity.
- Dike breach.

Application for dispersing visitor pressure on nature in the German case study (Fehmarn Island)

On Fehmarn Island the mapping of potential coastal conflicts highlighted the existence of spatial conflicts between nature, particularly between algae population in surf spots, and intensive water sports activity. To help manage surfer access to surf spots a simple and user-friendly application was created - Surfers Island App. Its core principle is to manage the flow of surfers by incentivising the use of parking spaces in the vicinity of surf spots according to the spot's sustainable capacity, thus avoiding overcrowded surf spots. A database of available public parking places near surf spots was compiled by geo-referencing the existing car park areas in Fehmarn and linking these to the capacities of public parking lots from Fehmarn's Parkraumkonzept und Parkleitsystem.

Figure 10.

The Surfers Island App - providing help with dispersing visitor pressure on nature

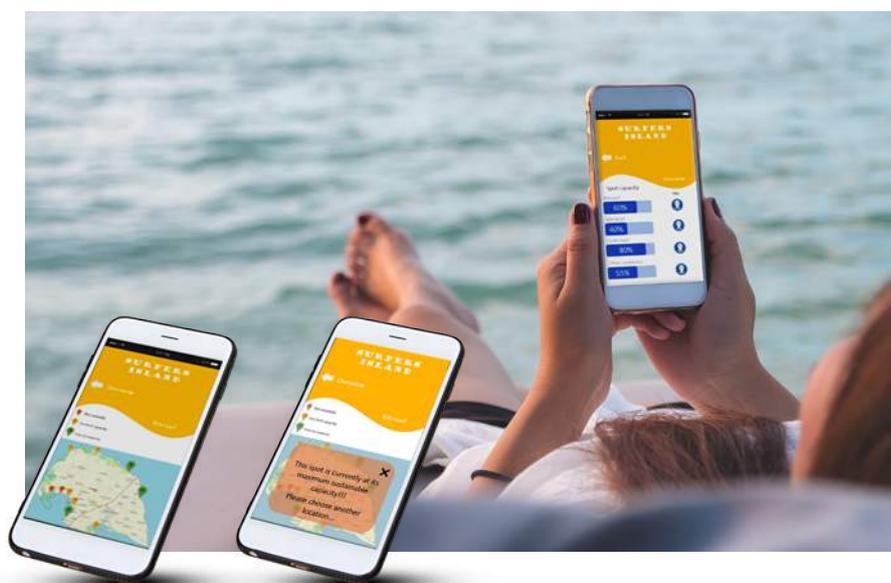
(Source: Fehmarn Island Land-Sea-Act case study)

MITIGATION OF VISITOR PRESSURE ON NATURE AREAS



Depiction of the overlap of several coastal and blue economy activities at Grüner Brink

(Source: BEF in communication with Strandpate)



Initially targeted specifically at surfers, in the future it would make more sense to have a general “parking App” for tourists and any other visitors. By completing the database with information on bus-stops and public parking spaces within the vicinity of beaches, eateries, footpaths etc. would lead to decrease the use of private transport and help avoid overcrowding of nature areas.

Ecosystem service approach in the Latvian case study (Southwest Kurzeme coast)

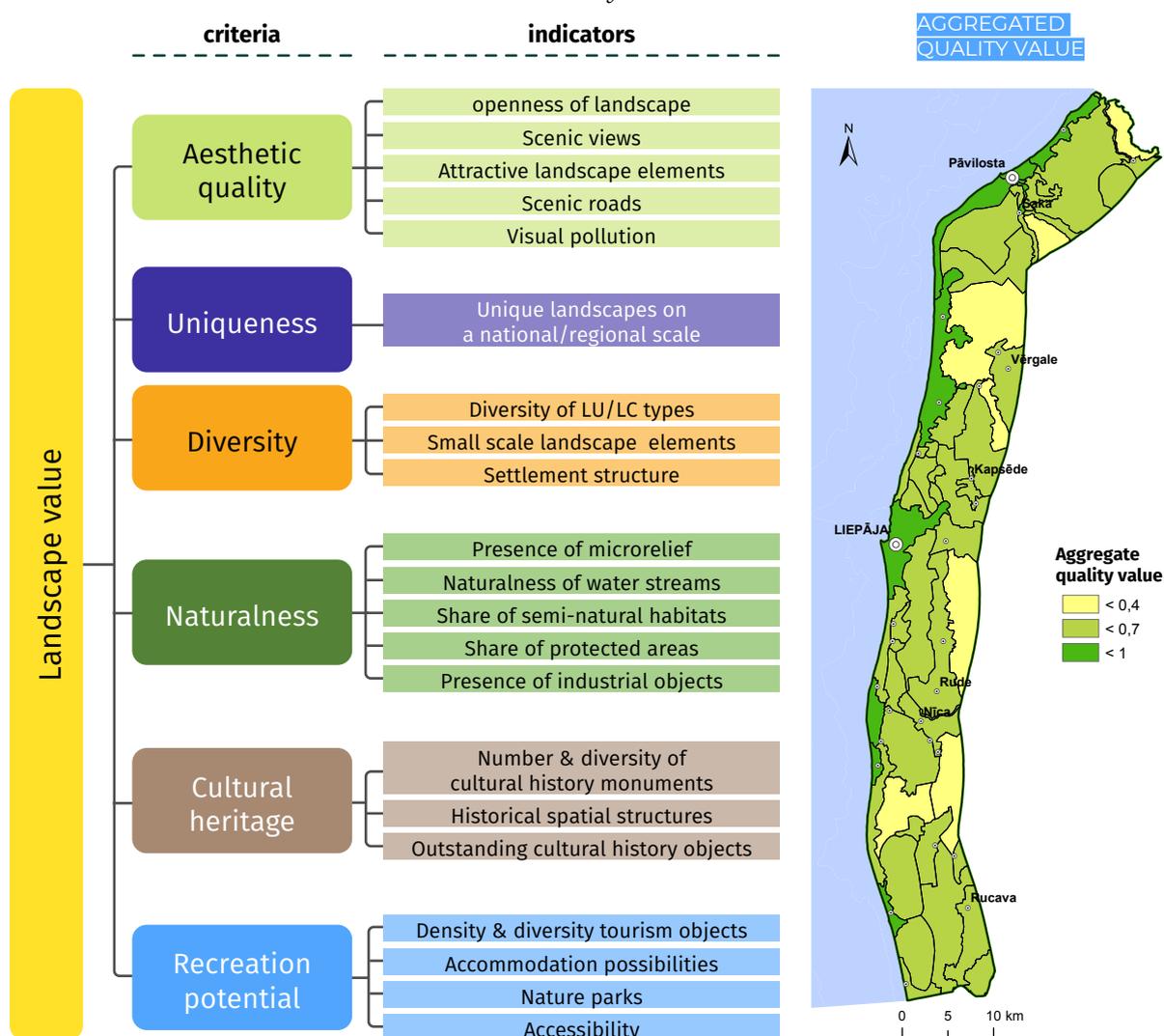
The ecosystem service concept was applied to identify ecological and socio-economic values of the coastal area, development trade-offs, as well as for assessment of development scenarios and proposed optimum solutions. Biophysical ecosystem service mapping was supplemented by socio-cultural mapping methods involving the stakeholders of the case study area.

Within the case study the application of the ecosystem service cascade model (including ecosystem structure, functions, services, and human well-being) was tested in impact assessment of offshore wind park. The case study also developed a novel approach to employing assessment of cultural ecosystem services and landscape qualities for targeting sustainable tourism development to site specific values. This could be used during elaboration of municipal thematic plans or development programmes.

Figure 11.

Assessment scheme of landscape qualities on the coast

(Source: Southwest Kurzeme coast Land-Sea-Act case study)

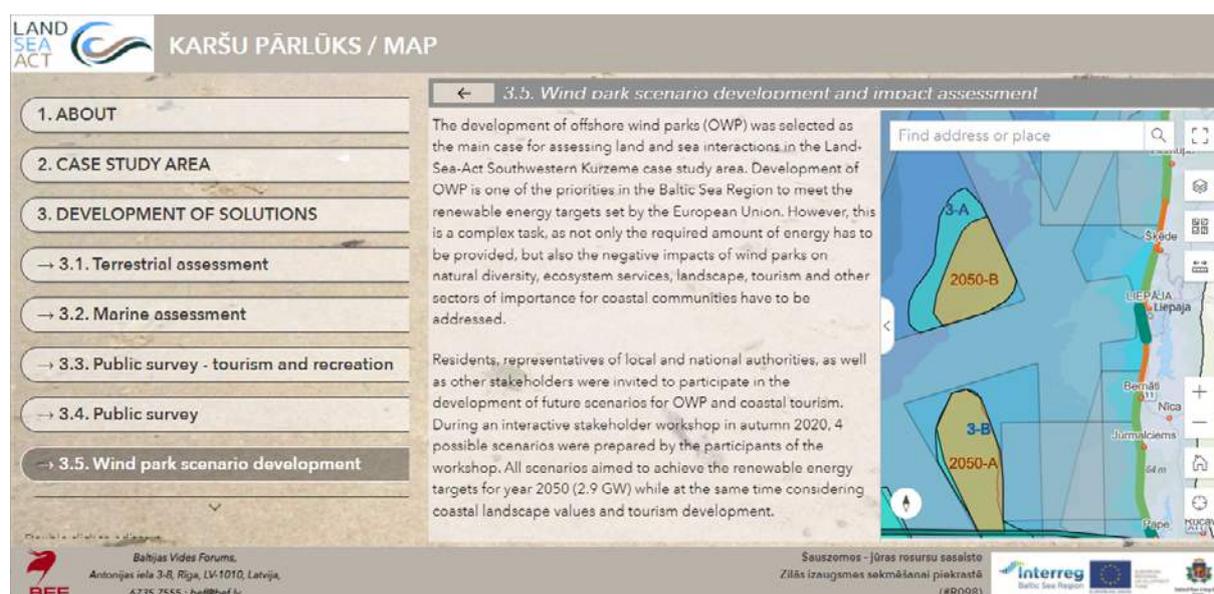


Land-Sea-Act map explorer in the Latvian case study (Southwest Kurzeme coast)

An interactive map tool (the Land-Sea-Act Map explorer) was created based on collected and recorded baseline data. The explorer was then used during a scenario building workshop to inform about spatial limitations and opportunities for offshore wind park development, it also allowed creation of development scenarios and assessment of impacts of optimum spatial solutions. Assessment results are available on the [Land-Sea-Act map explorer site](#).

Figure 12.

Screenshot from the Land Sea Act Map explorer.



SWOT analysis in German case study (Fehmarn Island)

A SWOT (strength, weakness, opportunity, and threat) analysis was undertaken for Fehmarn Island focusing on the dimensions of sustainability and climate, spatial conflicts, and blue economy. This is a good example of how a meaningful and applicable SWOT analysis, focusing on land-sea interaction issues, may be built.

Figure 13.
SWOT analysis

(Source: Fehmarn Island Land-Sea-Act case study)

	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
SUSTAINABILITY & CLIMATE	<ul style="list-style-type: none"> Broad acceptance for sustainability measures like water savings or less one-way plastic (~78% acceptance). Good awareness of the municipality regarding the risks posed by future climate impacts. Past experience with damaging flooding events and existing 35km of coastal protection infrastructure. 	<ul style="list-style-type: none"> Low participation in sustainability actions like using public transport (<10% participation). Lack of a mid- and long-term climate adaptation plan for the tourism sector. Water supply infrastructure projected to come under additional stress from climate change. 	<ul style="list-style-type: none"> Moderate acceptance in paying for a free public transport system in the island (~41% acceptance). Climate-neutral ambitions in are aligned with financing opportunities from Germany and the EU. Further growth of the tourism sector as travelling abroad remains lower than pre-pandemic levels. 	<ul style="list-style-type: none"> Tunnel to Denmark will disrupt the transport dynamics and likely increase road transport emissions. Climate-related impacts (e.g., extreme rainfall) cited as reasons not to visit Fehmarn in the future. Additional water demand in the summer months projected for the near future (2030) under a weak climate protection scenario.
SPATIAL CONFLICTS	<ul style="list-style-type: none"> Conflict-solving capacity via scientific enquiry and stakeholder dialog (e.g., pressure of surfers on seagrass). Consideration of innovative technological solutions to manage tourism flows. Population has grown more thoughtful of environmental impacts and competing blue economy activities. 	<ul style="list-style-type: none"> Habitat diversity is primarily viewed as aesthetical issue by stakeholders. Dominance of intensive agriculture land use in the coastal zone. Digital solutions to manage flows in surf spots face significant practical barriers. 	<ul style="list-style-type: none"> Tourists wish for a reduction on the use of phytosanitary products on agriculture (~50% of respondents). Untapped potential to de-intensify agriculture production. Future surf activity at some spots suggested to be kept at current levels. 	<ul style="list-style-type: none"> Additional global demand for energy crops can lead to the perpetuation of intensive agricultural practices. Risk of further environmental impacts from large domestic tourist flows if international travel remains limited.
BLUE ECONOMY	<ul style="list-style-type: none"> Good levels of infrastructure and geographical positioning. 	<ul style="list-style-type: none"> Historical focus on coastal tourism and lack of new/emerging blue economy sectors. 	<ul style="list-style-type: none"> Potential for tourism outside the main season via lower prices and increase offer for indoor activities (~30% of respondents). 	<ul style="list-style-type: none"> Continuous rise in tourism demand avoids focusing on exploring other forms of blue economy.

The project Land-Sea-Act (#R098 Land-Sea-Act Land-sea interactions advancing Blue Growth in Baltic Sea coastal areas) aims to bring together stakeholders involved in coastal management and planning, to find solutions to Maritime Spatial Planning and Blue Growth challenges around the Baltic Sea and to elaborate Multi-level Governance Agenda on Blue Growth and Spatial Planning in Baltic Sea Region. The project will guide national, regional and local authorities, as well as stakeholders of various sectors to:

- improve transnational cooperation and facilitate knowledge exchange to foster Blue Growth
- raise awareness, knowledge and skills to enhance Blue Growth initiatives and integrated development in coastal areas
- balance development of new sea uses with coastal community interests by improving coastal governance

Project implementation duration:	January 2019 – December 2021
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Our project homepage: www.land-sea.eu
 Look up and follow us on social media #LandSeaAct



EUROPEAN REGIONAL DEVELOPMENT FUND

