Interreg Baltic Sea Region Programme funded project
Land-Sea-Act (R098)
"Land-sea interactions advancing Blue Growth in Baltic Sea coastal areas"

Case study Northern coast, Estonia

Integrated coastal tourism and mobility planning

Output of Activity 2.5

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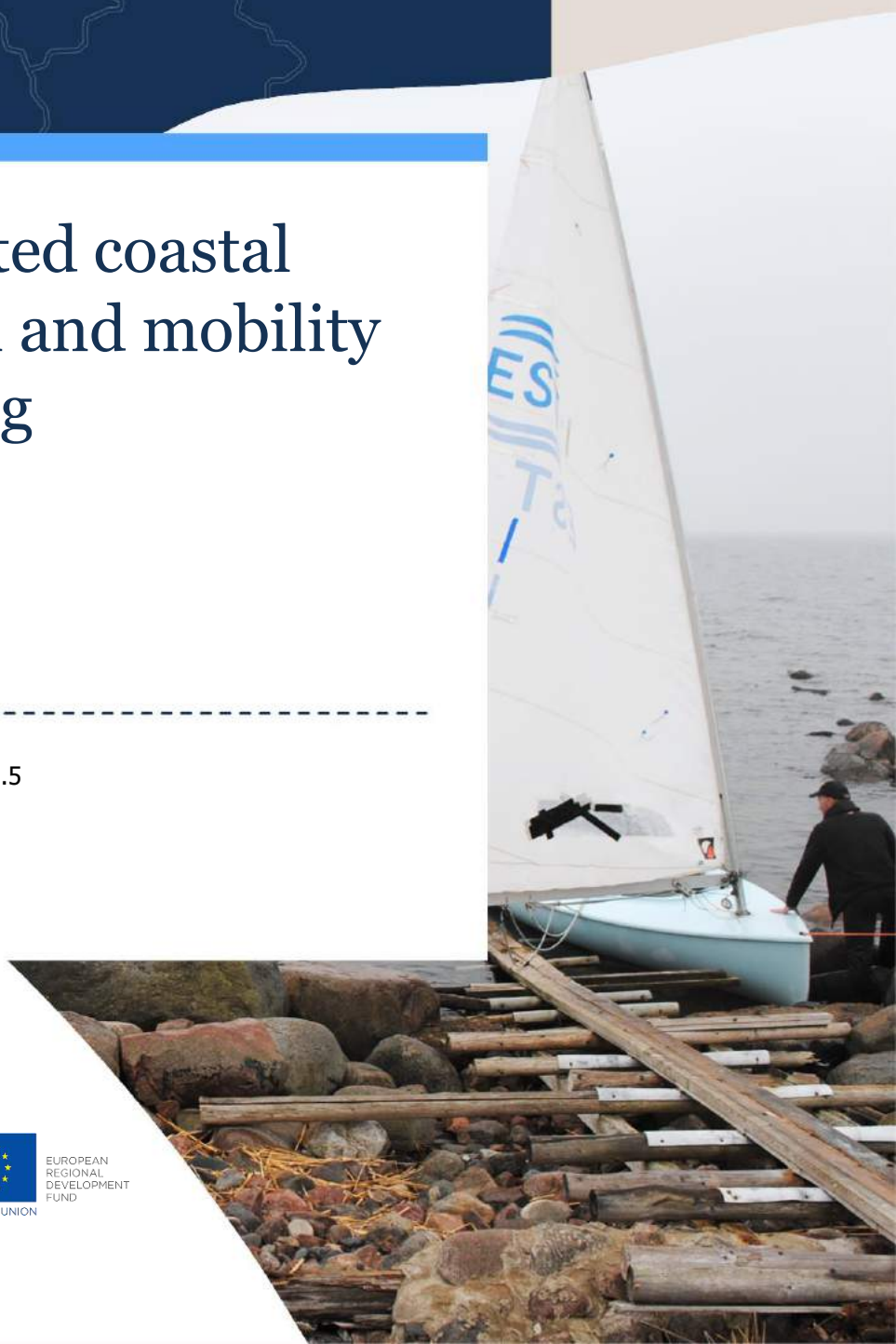

LAND SEA ACT
Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Land-Sea-Act project partners worked in six geographical locations in six countries around the Baltic sea – Sweden, Denmark, Germany, Poland, Latvia and Estonia.
This is one of six case study reports that will share insights, achievements and solutions for the Maritime Spatial Planning and Blue Growth challenges in coastal areas with different land and seascapes, legislative and governance systems, and various stakeholders.

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Contents

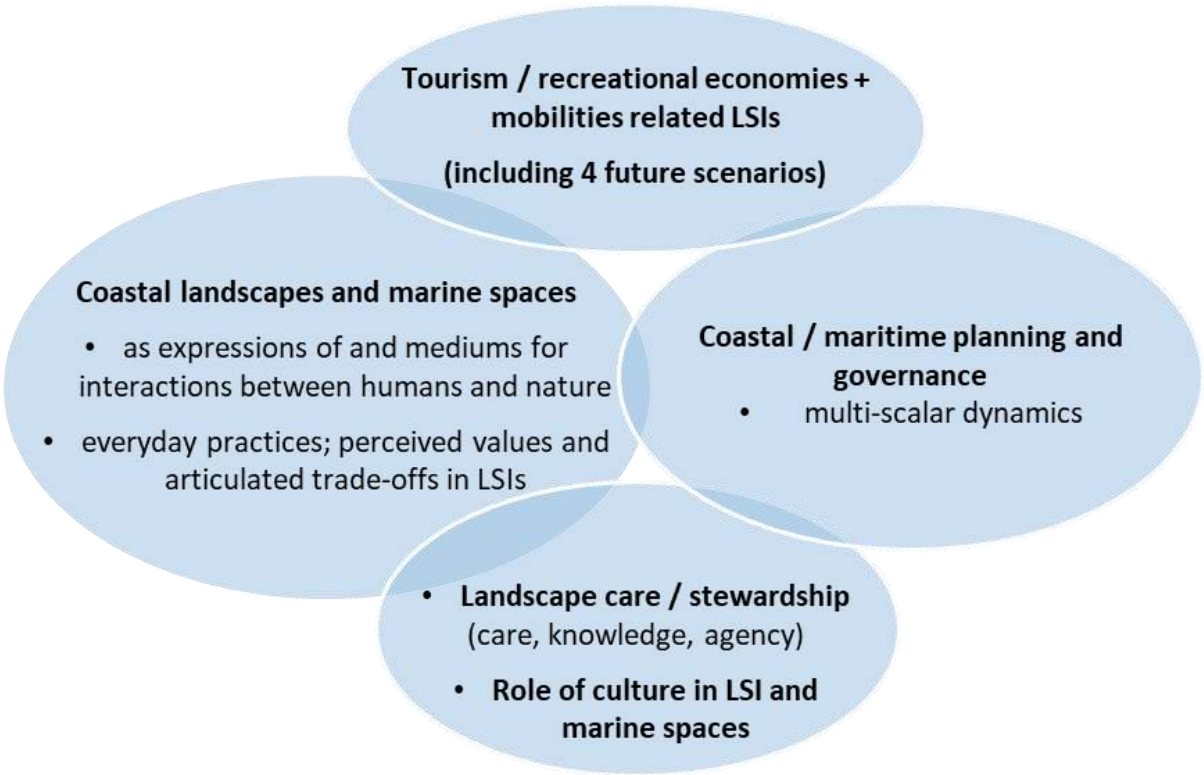
1. Introduction

The Land-Sea-Act (LSA) project consisted of several Work Packages (WP). WP 2 was designated for the *Spatial planning solutions for addressing development trade-offs in coastal areas* and consisted among other activities of four differently themed case studies: Latvia, Poland, Germany and Estonia. Here is the Estonian case study output.

While during the project lifetime the concepts of Blue Growth (BG), Blue Economy (BE) and Sustainable Blue Economy (SBE) have evolved, the land-sea interactions (LSIs) are poorly used to foster sustainable economy in marginalised areas. The current case study on the Integrated coastal tourism and mobility planning explores the role of LSIs in advancing BG/BE. The central section of the Estonian northern coast has several restrictions on economic and construction activities, and therefore coastal tourism can be seen as the main field of BE in the area.

According to the public survey conducted in the project, only 7% of resident respondents in the Estonian case study area are acquainted with the term BG or BE. These terms were a bit more familiar for enterprises in the survey (15% of respondents). Therefore, BE is a rather new field to be incorporated into everyday living environments. BG was associated with keywords like renewable energy, clean sea, restorative economy, wind, blue, climate change, sustainable, local resources, clean food.

Figure 1. The thematic focus of the case study



The aim of the study is to understand LSIs within emergent spaces of maritime-coastal planning and experienced coastal landscapes by focusing mainly on coastal tourism and mobility issues. The role of cultural practice and meaning-making are important in analysing dynamic intersections between coastal landscapes, maritime planning and BE. These tensions provide a key to understanding possible trade-offs and coexistences with evolving marine spaces (Jerzak et al. 2019). The conceptual frameworks of landscape stewardship and care (Peçanha Enqvist et al. 2018) and the multiple roles of culture (Gee et

al. 2017) in maritime spaces are used to interpret empirical findings about LSIs in coastal tourism and mobility planning (see Figure 1).

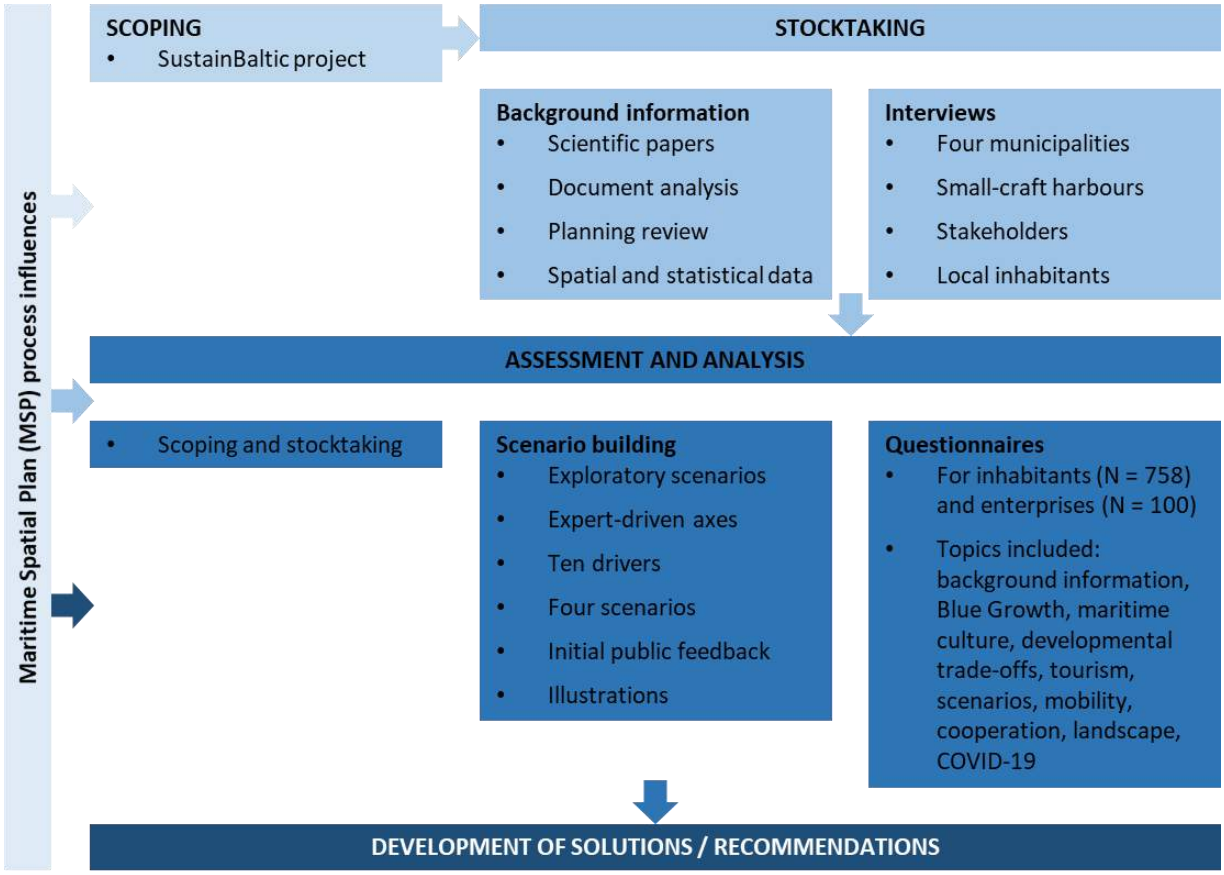
The interactions between maritime planning and coastal landscapes are studied through the following interfaces of tourism and related mobilities:

- Spatial imaginaries of maritime planning
- Entrepreneurial environment
- Aspects of heritage in coastal tourism
- Values and tensions in planning small harbours
- Exploratory thematic scenarios

1.1. Thematic focus and area of the case study

Coastal landscapes and marine spaces can be seen as expressions of and mediums for interactions between humans and nature. Coastal landscapes coexist with everyday practices and infrastructures of access influencing the perceived values and articulated tensions in planning in relation to marine spaces (see Figure 1). Coastal planning (including ideas of development and maintenance) and governance is multi-scalar by involving stakeholders from different institutional and networked levels of spatial planning. The elaboration of thematic scenarios through public feedback made the possible trade-offs visible between experienced coastal landscapes and the governance of marine spaces. These tensions, related to the meanings of landscapes and possible solutions for trade-offs of maritime planning, can be interpreted through the conceptual framework of landscape stewardship (including care, knowledge and agency).

Figure 2. The case study research process

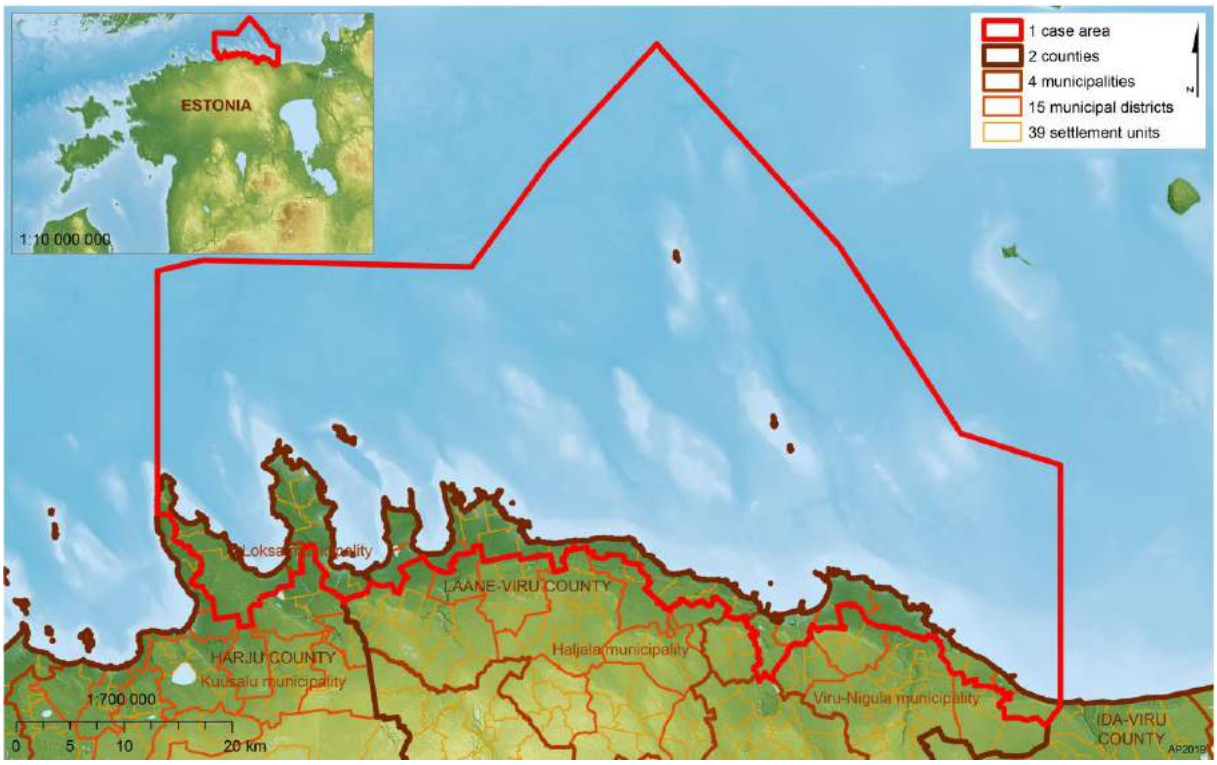


The study was carried out through interrelated stages (see Figure 2). First, interviews (N = 13) were conducted with coastal village community members active in advancing tourism and small harbours.

Then, discussion meetings with four municipalities revealed the current initiatives and governance processes in coastal planning. These interviews and meetings indicated diverse values and current ongoing tendencies influencing tourism and aspects of mobility related to coastal-marine spaces. This knowledge was used in advancing the exploratory scenarios, which were tested and further elaborated through meetings with stakeholders and with the pupils of two local schools. In the latest phase of the project, a public survey for understanding coastal tourism related values, tensions/trade-offs and future scenario preferences was realised. The survey included a representative sample of the inhabitants (N = 758) of coastal villages and small towns and the BE enterprises/organisations (N = 100) of the four municipalities in the test area (Appendices 1 and 2). The survey was carried out in collaboration with Turu-uuringute AS.

The central section of the northern coast of Estonia (Figure 3) studied in the LSA project contains mainly BE elements in the field of coastal tourism, potential over-sea connectivity links to Finland and heritage aspects. The marine space of the area includes a few smaller islands of which only one, Mohni, is inhabited. The marine area of the case study is influenced by significant regulatory spaces and guidelines related to the Lahemaa National Park and military-training areas that extend beyond the land (see Figure 4). The preservation rationalities that apply to natural and cultural milieu coexist with the dynamics of seasonal tourism, urbanisation (second-home users) and semi-industrial settlements. The planning and maintenance of vernacular seashore accessibility nodes and small-craft harbours form important LSIs for coastal tourism and recreation.

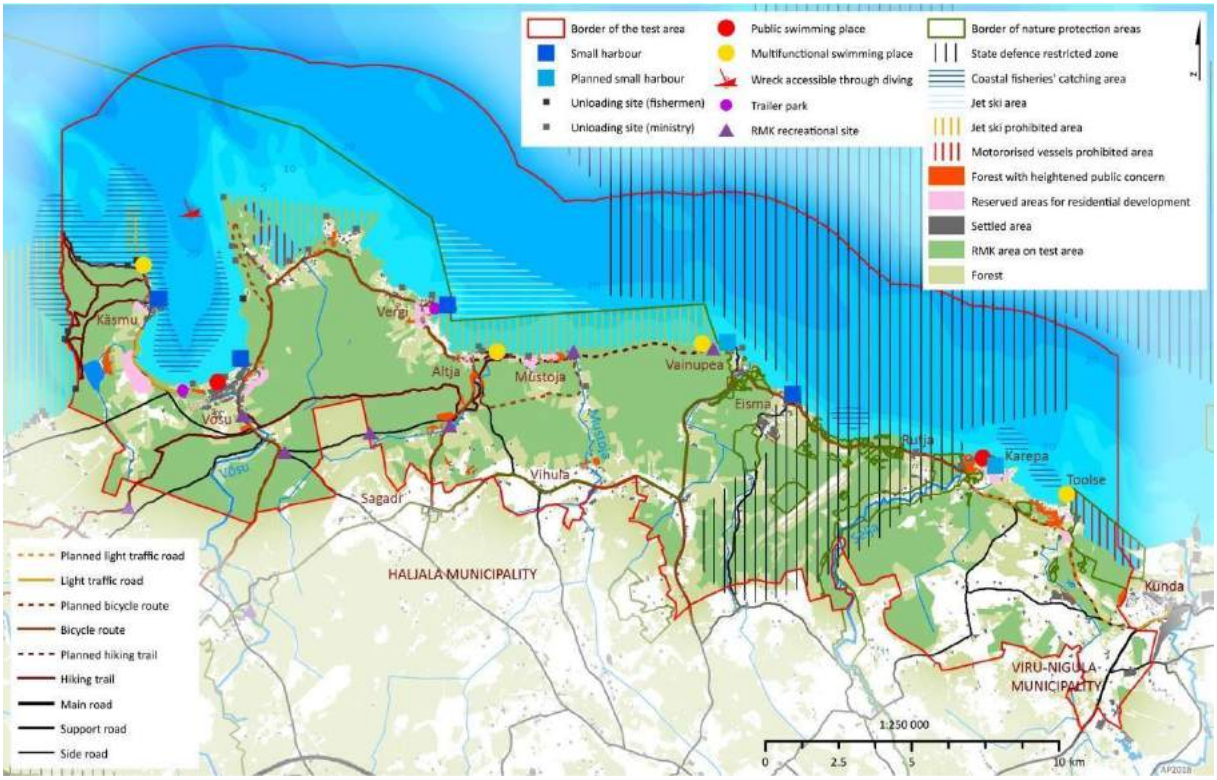
Figure 3. Map of the case study area
(source: Estonian Land Board 2019)



The maritime character of Estonian LSIs is partly defined by Soviet-era disturbances, where there were unmapped-closed settlements in militarised coastal zones with few selected sites for leisure activities (Printsmann and Pikner 2019, Sepp 2011). These rigid settings coexisted with the structural planning of recreational complexes for state enterprises and the establishing of summer-houses in rural coastal areas since the 1960s (Lankots and Ojari 2020). Diverse boundaries of land restitution from the 1990s (Nugin and Palang 2021) challenged the common right of access to the sea shore and of small landing sites or places on the shore.

This study further elaborates the results of the previous SustainBaltic project (Hietala et al. 2021, Kuusik et al. 2018), which addressed the issue of Integrated Coastal Zone Management (ICZM) on a smaller area of the northern coast (Figure 4) by mapping some aspects of coastal living environments.

Figure 4. The Integrated Coastal Zone Management (ICZM) plan from the SustainBaltic project (source: Kuusik et al. 2018)



2. Governance of coastal-marine spaces

The planning of tourism and mobility related functions in coastal areas involves various stakeholders and institutions. Therefore, there is a need to analyse multi-level governance processes (e.g. making of shared visions, participatory dynamics, collaboration networks), which influence maritime spaces and future coastal landscapes.

2.1. State level

The first ever state-level strategic Maritime Spatial Plan (MSP) 2035+ in Estonia will most probably be adopted in the beginning of 2022. The marine area is planned by the state, and decision-making at the municipal level is only involved in planning infrastructure for access to the seashore. This means that long-term use rights, coexistences and boundaries will be drawn on state-owned marine spaces. This perspective contributes both to preserving the environment and advancing SBE (Rahandusministeerium 2020). The spatialisation of new maritime usages (renewable energy, aquaculture, infrastructure networks) alongside existing traditional uses and diverse (regulated) values causes tensions.

Figure 5. Broad regional clusters of land-sea interactions formulated in the process of the Estonian Maritime Spatial Planning
(source: Rahandusministeerium 2020: 60)

The regional dimension in the state-level MSP appears through two (not included here) former pilot-regional plans, regional 'portraits' of maritime areas, and organising public feedback meetings. These regional coastal portraits were formed through socio-cultural mapping (conducted by the consultancy enterprise) including 37 object types covering valuable landscapes, infrastructure, cultural events, heritage sites and marine practices. The mapping of coastal-marine cultural values and regional portraits were integrated in the impact assessment process towards five generalised 'land-sea clusters'

(Kutsar 2020). These clusters appeared as broad regional fields of functional specialisation in tourism and BE, the maritime character of which could foster holistic development and achieve climate-neutral aims. It is significant that the most explicit BG cluster is allocated around the Island of Saaremaa and the related clusters in other regions include only some aspects of tourism (see Figure 5).

The functional approach to culture within LSIs falls mainly outside the MSP. The Estonian MSP states that the whole coastal-marine space is culturally valuable, and the plan would not explicitly formulate areas of maritime culture. Maritime tourism and recreation is generally handled through compensation/additional measures and possible co-usages, in which the crucial planning role rests on local municipalities. Many cultural heritage objects are found within existing protective frameworks. Besides existing nature and bird protection areas, four new preservation areas of underwater cultural heritage will be established in northern Estonian territorial waters.

The Estonian MSP acknowledges vernacular accessibility nodes (landing sites, Figure 6) on the seashore and small-craft harbours but leaves them mostly untouched because of related scales and frames of 'maritime' in the spatial planning. The MSP presents existing harbours on the map without direct planning regulations for small harbours. Yet, there is an acknowledged need (Kutsar 2020) to reset the classification of harbours and elaborate the existing harbour network (ideal distance 30 nautical miles) with the cultural services of surrounding settlements.

Figure 6. The landing sites for boats on the shore
(photo by Tarmo Pikner 2017)

The Estonian MSP is based on a wide ecosystem approach (including cumulative impacts), which appears through dozens of thematic studies and almost 40 maps in the public version of the plan (Rahandusministeerium 2020), and half of these maps are related to positioning offshore wind farms (OWF). This applied scientific approach of combining existing data and extrapolating it generated critical comments in the public MSP discussions about what counts as "best available knowledge" for making long-term strategic decisions about marine space usages.

The integrity of the marine space appears in planning through (possible) coexisting usages. The MSP has partly resulted in delimiting areas of co-usage, which also has its perils – tackled in the impact assessment (Kutsar 2020) – because of uncertainties bound to trajectories of technological change

(e.g. the height of wind turbines came up during the public hearing). The larger tensions between trawl fisheries and OWF required strategic decisions from the government. The majority of the activity spaces for 'Blue Growth' (especially OWF) are foreseen for the western coast of Estonia with its two large islands and more favourable shallow sea. The zoning of semi-open and enclosed targeted marine spaces was seen as a tool to support the integrity of practices within marine spaces.

There exist experimental initiatives and debates for integrating aquaculture with the planned OWF. The growing of mussels is seen as having potential for diversifying seasonal activities and also cleaning the sea water (Kotta and Loite 2021). Currently, marine biologists are more optimistic compared to the environmental planning officials about the potential of this option, and new experimental applied research projects exploring such co-usages of SBE functions are expected.

2.2. Regional and municipality level

The regional plan for Lääne-Viru county 2030+ approaches the coastal area as a distinctive spatial unit. Instead of international tourism, it explicitly mentions the recreational potential of the coastal area. The strategy foresees the seasonal summer-houses becoming increasingly used as permanent homes in light of the potential for and acceptance of remote working. Therefore, it would be particularly important to support the development of municipal centres like Võsu and Kunda.

The administrative reform of Estonia in 2017 changed the administrative boundaries of municipalities and reformulated the roles of the counties. Therefore, the municipalities of the case study area are in the process of completing new general plans. Some tendencies within LSIs can therefore be presented through coastal planning documents and thematic interviews.

The public survey for the **Haljala municipality** development plan for 2018–2030 (Haljala valla arengukava 2018–2030) indicated that people are happy with the general living environment but are not satisfied with the local schools and workplace possibilities. The public suggested the following aspects be improved in the municipality: elaboration of social infrastructure, better management of coastal areas and swimming places, making Võsu car-free through parking management, establishing a Võsu museum and tourism-info centre, and others. One of the strategic purposes of Haljala municipality relates explicitly to coastal tourism: "attractive and safe tourism and recreational area: developed and diverse services of small harbours, well arranged coastal area maintaining and developing the traditional living environment of coastal villages and coastal fishery" (Haljala valla arengukava 2018–2030: 10). One of the priorities is to map and restore small landing sites on the shore, and to elaborate a network of small harbours (see Figure 7) and of landing sites along the entire coast of the municipality. According to the development priorities, Võsu should become (again) a much more attractive tourism resort, and the harbours of Käsmu and Karepa developed.

The general plan for Haljala municipality is a work in progress. The framework of the general plan (Haljala valla üldplaneering 2019) references the ICZM plan from the SustainBaltic project (see Introduction). The development of small harbours in Vergi, Käsmu, Karepa and Eisma is mentioned, and the potential of Vainupea harbour require further studies. Additional parking lots are planned for Käsmu and Võsu because of the summer holiday intensity. The public transport connections and safety of small roads (including for bikes) need improvement. One of the most important problems is access to the shore in coastal villages (e.g. Eisma, Mustoja, Rutja). Every 500 m (in densely populated areas 200 m) there should be access to the seashore from a public road. Seashore access issues and the public use of small roads are also the main issues presented in the mapping of ideas by stakeholders (also using GIS tools) as part of the process of forming the general plan. Tourism is not presented in the draft of the general plan. The public comments about the draft general plan address, for example, the following aspects related also to coastal landscapes:

- The relevance of formulating valuable landscapes for the maintenance of cultural heritage
- The need to integrate the maintenance of cultural heritage with diverse fields like sustainable development and habitable environments
- The need to analyse valuable views in the landscape and to map view corridors

- The importance of taking into account LSIs outlined in the draft MSP
- Buildings and other infrastructure (including wind turbines) more than 28 metres high and solar-energy panels influence state-defence facilities, and therefore require additional agreements

Figure 7. The allocation of small harbours in the region
(source: Estonian Land Board 2021, State Port Register 2021: Karepa and Mahu harbours are under construction)

However, the formulation of valuable landscapes remains outside the scope of the general plan statute as indicated in the planning response. This response demonstrates the importance of experimental applied science projects with the capacity to make new culturally significant LSIs visible for spatial planning.

Kuusalu municipality development plan does not mention coastal areas or tourism as one priority, although heritage culture initiatives are included. The planning official at Kuusalu municipality commented that the municipality has so far not actively engaged in the development of coastal areas because it is more a field of private and state-level concerns but lately the municipality supports the reconstruction of Salmistu small harbour.

In addition to coastal villages, the case study area also includes two coastal towns of a semi-industrial character. **Loksa town** has a large enclosed shipyard harbour. The tourism potential in the development plan (Loksa linna arengukava aastani 2023) is associated with valuable natural assets and the surrounding heritage of Lahemaa National Park. Interestingly, this small coastal town was known as the Estonian Hollywood in the 1930s because it had suitable sunny days for filmmaking. Loksa municipality has plans to establish a town museum. Recreational tourism in Loksa would require the elaboration of coastal infrastructure; for example, creating a promenade and pier for yachts. There is also a lack of accommodation and dining facilities. Another town, **Kunda**, is positioned in the development strategy as a harbour and industrial town, which plans to elaborate a coastal recreation area, hiking paths, renovate the lighthouse, and more attractively highlight its industrial heritage for tourism.

2.3. Municipal districts and communities in local governance

The municipal district (*kant*) (see Figure 3) assembly (*kandikogu*) can be seen as a collaborative platform of villages, which brings together diverse concerns and represents the shared goals of a district in discussion with the municipality. District or community assemblies (*kogukonnakogu*) were seen as one method towards the devolved governance of a local municipality within the public administration reform agenda in 2017. This reform united smaller municipalities into larger territorial

units (from 213 to 79 municipalities during the period 2013–2017) of 5000 inhabitants or more. The legal act of the municipal administration system included options for establishing a partial-municipality (*osavald*), which will support the accessibility of services and democratic representation of community interests in the larger (united) municipalities. These partial-municipalities were enacted only within in Haljala municipality in the case study area. The wider thematic study (Lõhmus 2021) shows that partial-municipalities are rarely established in Estonia, and more often district or community assemblies are used as a tool of decentralised governance for a municipality. In January 2021, district or community assemblies were established in six new (united) municipalities totalling 28 assemblies, which is a rather small number in the context of the wider administrative reform.

In the case study area, municipal district assemblies were established only in the Haljala municipality. The legal regulation of Haljala Council (Haljala valla aleviku- ja… 2019) was enacted in May 2019 for formulating the status of a village elder and a district assembly. The municipal district (*kant*) is formulated in the document as follows: "District is an area, which is formed by one or several villages, which are characterised by common cultural and everyday contacts and a feeling of unity", and the district assembly includes elected elders of villages and/or other elected members (a minimum of five members). The main role of the district assembly is seen as presenting opinions and making suggestions to the Haljala municipal government about local development priorities, the general plan, municipal budget, public transport schedules and roadworks. Aspects of coastal spaces or culture are not made explicit in the definition of the assembly's status.

In the Haljala municipality, 10 district assemblies are established: Aaspere, Essu, Haljala, Karepa, Käsmu, Sagadi-Vergi, Varangu, Vihula-Annikvere, Võhma-Palmse and Võsu; several of these assemblies include the coastal zone of the case study area (see Figure 3). A district assembly can also consist of only one village (e.g. Käsmu).

Several municipalities do not talk about quasi-institutional districts but indicate decentralised governance through assemblies of a community or of an area. According to Lõhmus (2021), the most suitable decentralised model of municipal governance has to take into account local context. The case study shows that the community coordinator of the Haljala municipality did devote much energy and time to mobilise the area-based district assemblies including the active elders in coastal villages. It seems relevant that on the municipal level, multi-level networked governance will be more recognised, which can bypass and overcome hierarchical levels in various (informal) planning consultations. For example, villages and district/community assemblies did have the option of making direct suggestions to the Estonian MSP.

2.4. Trade-offs and multi-level governance in integrating coastal-marine functions

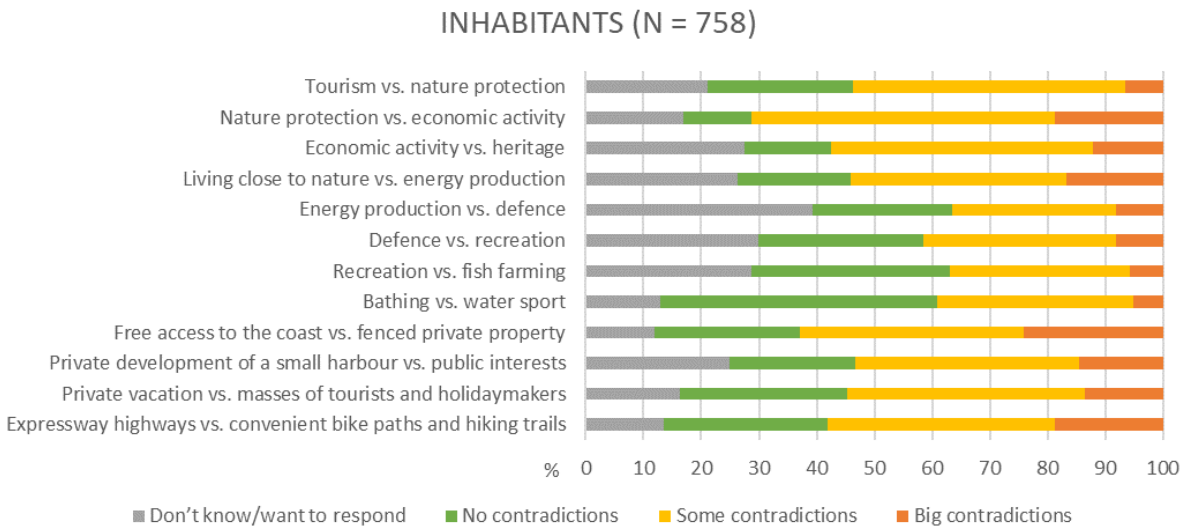
According to the public survey, residents and enterprises did recognise some significant trade-offs (see Figure 8) between the following uses of coastal and marine spaces (the most often mentioned tensions are listed first):

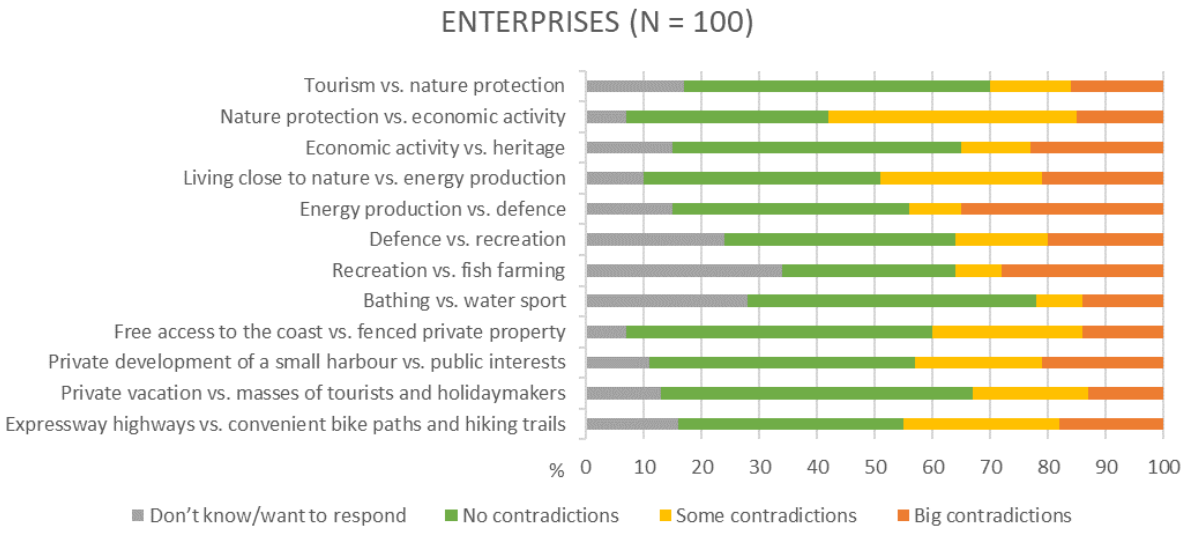
- Nature protection *versus* economic activity
- Free access to the coast *versus* fenced private property
- Expressway highways *versus* convenient bike paths and hiking trails
- Living close to nature *versus* energy production
- Private development of a small harbour *versus* public interests

The residents argued that the most important levels or actors for advancing coastal tourism are the local government (86% from respondents) and the state (53%). It is remarkable that the role of the entrepreneurs, community and local inhabitants is equally significant for about 30% of the respondents. The municipal districts (15%) and villages (11%) are considered less important in advancing coastal tourism. Entrepreneurs also recognise the importance of the local municipalities (78%) in coastal

tourism initiatives, but the next role is given to the community level (43%). Entrepreneurs also indicate the importance of other stakeholders in coastal tourism: entrepreneurs (37%), state level (36%), municipal districts (26%) and local inhabitants (25%). These responses show that the respondents see the field of coastal tourism as part of the living environment rather than direct economic activity.

Figure 8. Trade-offs between different functions and values in coastal areas





The meetings with local municipalities indicated that there is a will to have a more active role in planning the coastal marine space (1 nautical mile from the shore), but there is also a lack of competence and more concrete ideas for mobilising the planning rights for the marine space at the municipal level.

Issues concerning coastal-marine planning and governance that were articulated in the interviews, meetings and planning documents are as follows:

- The capacity of the municipalities for dealing with marine spaces is rather limited. There is a lack of knowledge, ideas and experience in planning the coastal sea area and working explicitly with LSIs. According to the survey (Kase 2019), a significant number of the coastal municipalities have the motivation to plan the marine space up to 1 nautical mile from the shore, but they expect additional training for this task
- The LSIs are approached at the local level of spatial planning mainly through small harbours (informal landing sites are less recognised) and actual regulations extending from the land towards the sea

- The municipality often expects the initiative to come from outside (e.g. entrepreneurs) to start working LSIs
- The integration of coastal and maritime cultural heritage into valuable landscapes remains outside of the statute of the local general plan, and therefore planners refuse to approach this complex topic
- The ongoing MSP has experimented with methods for linking cultural meaning to marine spaces, although this was generalised at the regional level and some qualities of LSI clusters became blurred. However, at the level of local municipal planning there is currently a challenge in elaborating methods and procedures for making values and issues bound to coastal landscapes and communities visible
- BG (offshore wind energy, aquaculture) is explicitly associated with the state-level MSP and only in relation to the marine spaces around the larger islands on the western coast of Estonia. Other marine spaces only include BE through tourism; this distinction seems rather simplistic and there is a challenge at the local level to diversify this view

3. Entrepreneurial environment

While the concepts for sustainable economic activities in sea-related fields have evolved:

- **Blue Growth** (BG) was launched in 2012 as "A long term strategy in support of sustainable growth of the marine and maritime sectors [Blue Economy]:
  - Aquaculture
  - Blue biotechnology
  - Blue energy
  - Marine mineral resources
  - Maritime, coastal and cruise tourism

  applied by the European Commission (DG MARE – Directorate-General for Maritime Affairs and Fisheries) to harness the untapped potential of Europe's oceans, seas and coasts as drivers for the European green economy with a great potential for innovation, improved competitiveness and quality jobs aiming at achieving the goals of the Europe 2020 strategy for smart, sustainable and inclusive growth" (European Commission 2020);
- **Blue Economy** (BE) widened the concept in 2014 (European Commission 2014, 2021b): "all sectoral and cross-sectoral economic activities based on or related to the oceans, seas and coasts" (European Commission, Directorate-General for Maritime Affairs and Fisheries 2021: 2):
  - Established sectors:
    - Marine living resources
    - Marine non-living resources
    - Marine renewable energy
    - Port activities and construction of water projects
    - Shipbuilding and repair
    - Maritime transport
    - Coastal tourism
  - Emerging sectors:
    - Desalination
    - Blue bioeconomy
    - Marine minerals / deep-seabed mining
    - Coastal and environmental protection
    - Defence and security
    - Marine research and education
- **Sustainable Blue Economy** (SBE) underlines environmental values: "achieving the objectives of the European Green Deal and ensuring a green and inclusive recovery from the pandemic" (European Commission 2021a)

all this is inconceivable without a business component.

BE experts from LSA countries found that the global trends most likely to affect the sector are: climate change, general economic development, technology, political developments, digitalisation, demographic change and urbanisation.

3.1. Blue Economy in Estonia

BG, BE and SBE all relate to the sustainable exploitation of coastal-marine resources. Acknowledged as such these are relatively new fields with **no readily available information, data and statistics** or dashboards (excluding the Annual Economic Report on EU Blue Economy since 2018 concerning mainly established sectors) making it difficult to give overviews of the state-of-the-art and progress. Another issue is the **scale** (geographical extent) of data acquisition: some information can be found on a

national level, but this is not necessarily directly reducible to county, municipality or settlement unit level, which becomes a problem when the case study area consists of shoreline settlement units of four municipalities in two counties.

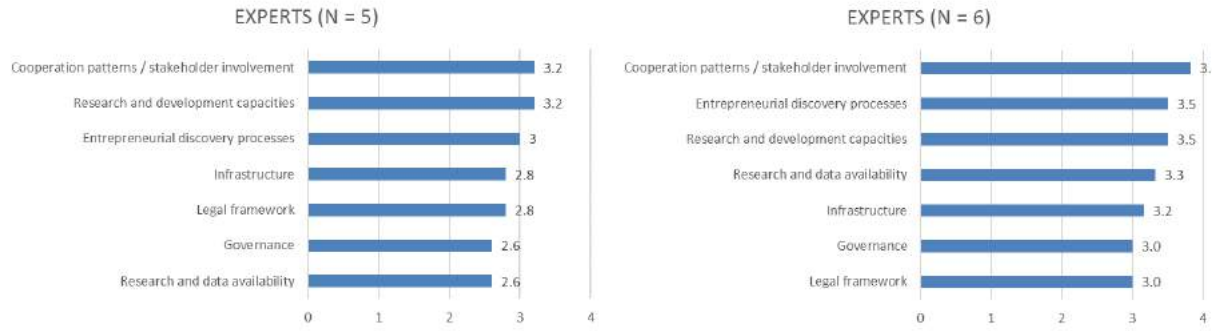
WP 3 – *Embedded entrepreneurship for vital coastal areas and Blue Growth* under the leadership of the Hamburg Institute of International Economics with the help of all partners compiled some background data into the main output of the project called "Blue Growth Checks: Mapping the Blue Economy in the case study regions", part of which is presented here to form a broader Estonian context at a NUTS-3 level (*Põhja- ja Kesk-Eesti* – Northern and Central Estonia). BE in LSA case study areas varies a lot in composition and dynamics. The data was gathered from all available sources and then enriched using expert questionnaires (eight from Estonia out of 25 for the project) to add context specificity as the statistics and its scale alone are inadequate. For example, experts also deemed the retrieving of information as difficult; nevertheless, the Estonian level of environmental and cultural heritage data was considered acceptable.

An unexpectedly high share of **7% of Estonian national employment occurs in BE sectors**, this is the highest in all the case study countries, whereas experts assess the scope and importance of BE in comparison to other sectors in the region as the lowest. **70% of BE is made up of coastal tourism**, the other sectors (maritime transport, shipbuilding and repair, port activities and fishing) almost equally share the remaining 30%. Coastal tourism is different from other sectors, since it is a set of activities rather than a single economic activity. The high share indicates the flawed nature of data collection: as the capital Tallinn boasts visitors and is situated by the sea, then all hospitality industry counts as BE. Coastal tourism is a leader everywhere in Europe, regaining its level after the 2008 crisis by 2018. Since 2009, coastal tourism in Estonia has witnessed a 33% reduction in work places even before the COVID-19 pandemic, while the number of jobs in other sectors increased, especially in shipbuilding and repair (by 37%).

Surprisingly, during the past decade, shares of national employment, gross investments (partly European support schemes) and Gross Value Added (GVA) have been decreasing. Hopefully, the adoption of the MSP will trigger new interest in SBE, despite the fact that according to research and scientific models, western Estonia has much more favourable natural conditions for BG than the northern coast. In addition, blue biotechnology, maritime transport (boosted by 314% due to high gross investment and the 41% increase in total international passenger transport mainly in the capital city of Tallinn in the last 10 years), renewable energies and fish farming gain popularity, whereas other forms of aquaculture (algae, molluscs etc.) need development. Estonian regions involve the third-highest number of business support organisations, although research and development expenditures as a share of Gross Domestic Product (GDP) have not increased recently. Marine renewable energy still accounts for the least employment in total, although it has been growing in recent years.

Figure 9. Land-Sea-Act project Estonian experts' evaluations

a) The regional preconditions for Blue Growth perceived by experts in the areas listed (1 = very bad, …, 5 = very good)
b) The future development of Blue Economy perceived by experts in the areas listed (1 = very bad, …, 5 = very good)



Expert estimations state that the majority of established Estonian BE consists of coastal tourism, maritime transport, shipbuilding and repair, ports, warehousing, and the construction of water projects, whereas extraction of marine living resources is low and offshore oil and natural gas is not known. In

emerging sectors, renewable energy has occupied the highest level, followed by coastal and environmental protection, marine research and education, defence and security, blue biotechnology, desalination and deep-sea mining. The inputs come from within the country, whereas export also reaches global levels consisting mainly of edibles. The measures to promote BE are seen in the MSP.

Experts deliberated the regional preconditions for BG and the future development of BE the highest in the field of cooperation patterns / stakeholder involvement (see Figure 9a), while cooperation is not seen in such a positive light by the businesses themselves (see Figure 12). The drawbacks are seen in data availability, governance and legal framework issues (see Figure 9b).

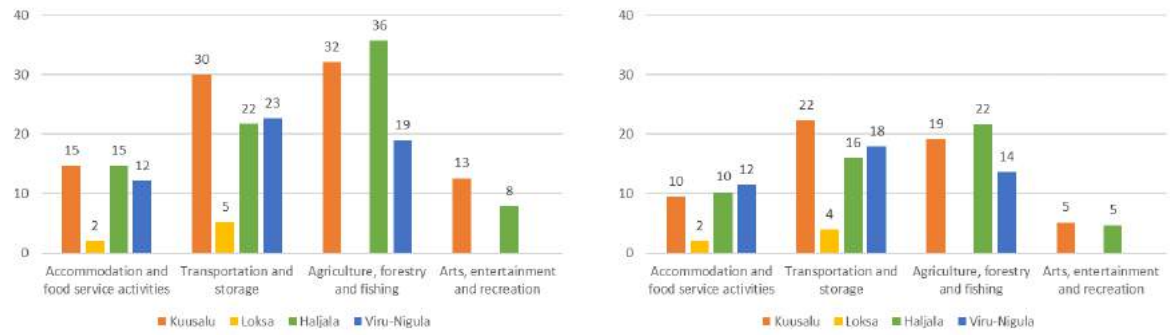
3.2. Demographics of enterprises

The Statistical Classification of Economic Activities in the European Community (*nomenclature statistique des activités économiques dans la Communauté européenne* – NACE) has a hierarchical structure listing 615 business sectors at the four-digit tier. The Estonian Classification of Economic Activities (*Eesti Majanduse Tegevusalade Klassifikaator* – EMTAK) adds a fifth level, established according to the specifics of the Estonian economy and the relevant legislation (Centre of Registers and Information Systems 2020). 46 of the NACE named activities have a "principal or significant maritime component". In addition, 20 more NACE-codes belong to industries with an "important maritime component". However, these sectors are not solely "blue".

The most recent public data for first tier NACE/EMTAK economic activities in Estonian municipalities is available for 2020 (summarised from monthly averages). The number of active enterprises is low (Figure 10a) and even smaller for businesses with workers in four sectors pertaining to BE and the case study focus (Figure 10b).

Figure 10. The number of Blue Economy active businesses

a) The number of active businesses in four sectors in four municipalities in 2020 (source: Statistics Estonia 2021)
b) The number of businesses with employees in four sectors in four municipalities in 2020 (source: Statistics Estonia 2021)



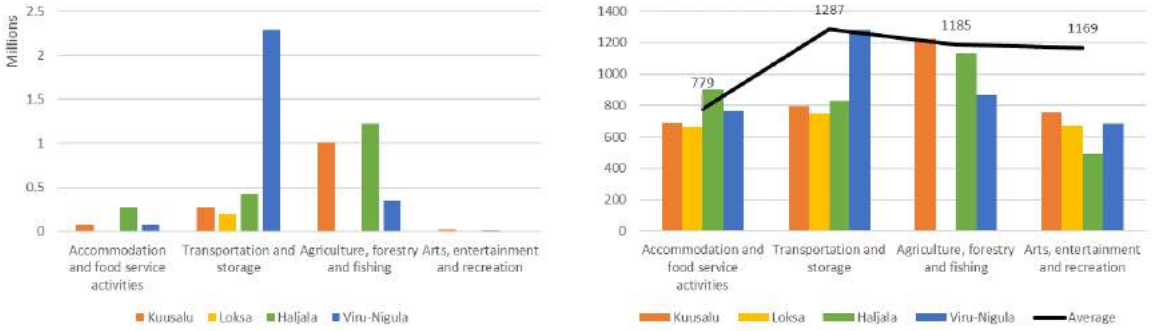
The turnover is very unevenly distributed (see Figure 11a). The only sector to show export was transportation and storage in Kuusalu municipality (92 euros). Wages fall below the average in the field and also below the national average salary at 1414 euros (see Figure 11b).

More detailed information can be ordered from Statistics Estonia without anonymisations. As there is no category in EMTAK for BE then a selection from the long list of economic activities was done by hand (Appendix 3) concerning enterprises with BE, tourism and mobility. Similar approaches to the selection of BE single economic entities instead of industries as a whole have also been chosen elsewhere (Katila et al. 2018, Szejgiec-Kolenda and Zaucha 2018). The geographical scale used included the four municipalities in the case study area as businesses dealing with BE are not necessarily located on the seashore. As "Blue Growth Checks" concluded, "only including the number of businesses turned out to give relatively little insight into the actual importance of the BE for employment or income" – this database was later used to create a representative sample for the survey.

Figure 11. The economic well-being of Blue Economy sector

a) The average turnover in four sectors in four municipalities in 2020 (source: Statistics Estonia 2021)

b) The average salary compared to the average in the field in four sectors in four municipalities in 2020 (source: Statistics Estonia 2021)



The data were retrieved for 2019 with sales profits for 2018. Altogether there were 770 enterprises/organisations (Table 1). The majority of these (i.e. 758) have 1–9 employees, 10 have 10–49 and only two 50–250 employees. The businesses are very small in terms of both number of employees and sales revenue (Table 2).

Table 1. Legal forms of Blue Economy in the four municipalities in 2019

(source: Statistics Estonia 2020)

Legal form 2019	Number
Sole proprietors	141
Commercial undertakings (*osaühing*)	367
Commercial undertakings (*aktsiaselts*)	5
Commercial undertakings (*tulundusühistu*)	2
Foundations	6
Non-profit organisations (*mittetulundusühing*)	217
Non-profit organisations (*mittetulundusühistu*)	20
Government and local government institutions	12
TOTAL	**770**

Table 2. Sales revenue of Blue Economy in the four municipalities in 2018

(source: Statistics Estonia 2020)

Sales revenue in 2018	No. of enterprises/organisations
Unknown[1]	350
0–99,999 euros	345
100,000–999,999 euros	66
1 M – 2 M euros	6
2 M – 5 M euros	2
> 5 M euros	1

[1] The obligation to register for value added tax (VAT) arises when an economic operator's taxable supply exceeds 40,000 euros as calculated from the beginning of the year. An economic operator whose intra-community acquisition of goods exceeds 10,000 euros as calculated from the beginning of a year is registered as liable to VAT with limited liability. A parent undertaking and its subsidiaries are registered as a value added tax group

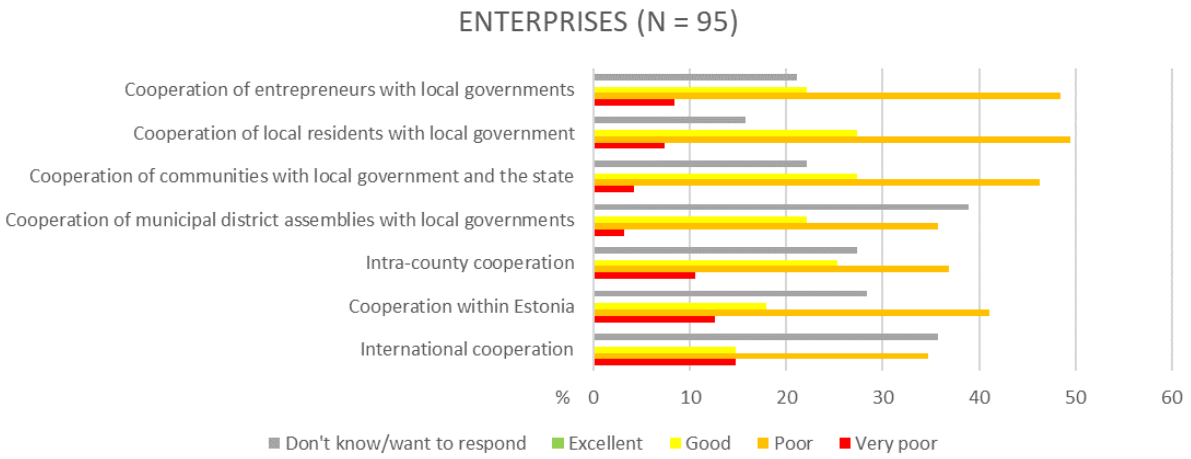
3.3. Challenges in the entrepreneurial environment

100 enterprises/organisations submitted full responses to the questionnaire (Appendix 2) along with five companies who did not finish the survey.

There were 26 companies arguing for more coastal space to advance their services and activities, 69 who did not need more coastal and five firms that did not manage to answer that question. As web-based questionnaires are preferred to avoid lengthy open-ended answers resulting in responders quitting the survey altogether, we do not know whether sea or land-based territories are restrictive. As the companies were selected from across the entire area of the four municipalities, it is possible that they have a greater demand for land than marine space. Still, ¼ of the enterprises stating that they need more space is a relatively high number. We do not know what their options are either to rent (use-rights) or buy additional space and whether it is feasible within close proximity but definitely there are developmental aspirations that municipal planning should consider. More space could mean more BE, while hopefully not disregarding sustainability.

Cooperation is difficult at every level, and therefore it is no surprise that there is not a single case of 'Excellent' experience but negative emotions dominate (Figure 12). The most common answer almost universally is 'Poor', only a couple 'Don't know/want to respond' exceeded this. Almost half of the respondents find that cooperation in whichever form with municipalities is 'Poor'. Here the results may be ambivalent because the municipality is the first administrative level with which respondents deal with all kinds of questions and they may have heightened expectations for solutions. Municipalities do have to follow the law – commonly known as a process that takes time. In the interviews, the municipalities also referred to the problem of understaffing; therefore, officials can only deal with burning issues and not long-term problems.

Figure 12. Evaluation of different levels of cooperation by entrepreneurs



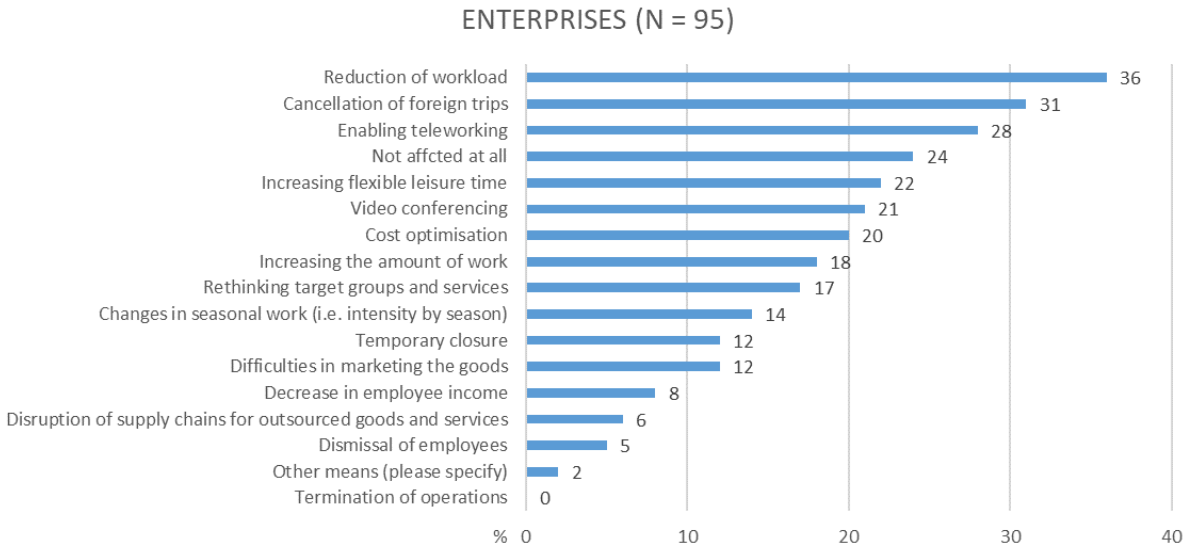
It is also very saddening to see the proportion of 'Very poor' experience at the level of the counties, the nation and internationally. Can this be tied to the bureaucratic running of errands? Simultaneously, the higher levels got a lot of hits as 'Don't know/want to respond' meaning also that there might not have been any relevant experiences.

Surely, the close-knit ties on the local level make business more pleasant. Cooperation with local inhabitants and communities were valued the highest. Overall, ⅕ to ¼ of the experiences have been 'Good'.

As the COVID-19 pandemic is not yet over, it is hard to assess its impact. The Blue Economy Report finds that most of the established sectors face a strong initial impact, whereas coastal tourism is challenged by a lagged recovery path. Readjustment in all fields of activity depend on the initial

condition and may witness expedited developments in some cases. The case area companies were apparently not too devastated as ¼ reported no impact and none terminated their operations by mid-September 2021 (Figure 13).

Figure 13. How companies were affected by COVID-19 in the four municipalities in 2021



Overall, local and regional economic activities should be mapped and strategies developed and followed-up with examples of good practices (see also "Blue Growth Checks"):

- BG, BE and SBE concepts have evolved and the majority of the economic activity depends on businesses and enterprises but the public awareness about the field(s) can be advanced
- Experts see climate change as a game changer in BE
- 7% of national employment occurs in BE sectors
- 70% of BE is coastal tourism
- The tourism workforce is declining, whereas all the effects of COVID-19 are unknown
- Gross investments and GVA in BE have been decreasing
- The MSP may gain momentum for interest and development
- There is a lack of data, information and statistics on BG, BE and SBE at sector level and in terms of scale
- The local business scene is made up of very small enterprises with few employees and small revenues
- Businesses see the need for spatial expansion
- The high number of business support organisations does not seem to be having an effect on enterprises
- Cooperation among businesses, municipalities and citizens is weak

4. Coastal tourism

Coastal tourism is different from other BE sectors, since it is a set of activities rather than a single economic activity. Tourism development depends very much on active collaboration between firms, municipalities and local inhabitants. In regard to who should take the lead, views differ (see sub-chapter 2.4): residents rely on the local government and the state, whereas entrepreneurs look to their municipalities and communities. It is clear that without companies it is difficult to achieve anything, but for them the environment and attitudes have to be favourable. Tourism and mobility are inextricably linked (Figure 14), for example, for caravan owners, but we try here to make a distinction for analytical reasons.

Figure 14. The Island of Mohni is almost uninhabited, the access requires self-organised marine mobilities. Nature protection still allows hiking trails within the cultural heritage and simple accommodation on the island
(photos by Tarmo Pikner 2019)

The case study indicates that co-usages of coastal-marine spaces evolve over time and can also generate tensions between interest groups. Nature and eco-tourism, such as birdwatching, is popular but does not generate too much revenue. The mapping of heritage during the MSP did reveal culturally rich historic paths along the coast, but the village inhabitants did not always welcome harnessing these legacies for developing tourism because of the expected invasion by visitors. Water sport activities can cause problems for coastal fishermen, and there was support for allocating clear boundaries for riders of water-scooters. The local municipality became concerned about the impact (noise, visual disturbances) of new military protection areas indicated in the MSP and requested further studies.

It is also not so obvious that the people living by the seaside would go to the beach very often; for example, the people of Võsu prefer to go swimming in more private areas than the more touristy home beach – 30% of the residents still go to the sea almost every day, 27% a couple of times every month and 22% almost every day during the summer.

4.1. Recreational economies

"Blue Growth Checks" summarised the available NUTS-3 data concluding that both Estonia and Latvia depend strongly on foreign tourists for nights spent in coastal tourist accommodation in 2019. In the Estonian case, this region also includes the capital Tallinn and the information may be skewed.

Statistics Estonia has a dedicated segment for the HoReCa industry (Hotels, Restaurants, Cafés/Catering) with data partially complete since 2004 with interactive dashboards. Therefore, there is no lack of information here, although it is not accessible to the finest administrative level and food services are underrepresented (Table 3).

Table 3. Capacity of accommodation establishments in two counties 2019–2020
(source: Statistics Estonia 2021)

	Harju county		.. Tallinn		Lääne-Viru county	
	2019	2020	2019	2020	2019	2020
Accommodation establishments	242	223	142	128	85	76
Rooms	10,181	9,567	8,795	8,141	1,117	1,154
Beds	22,274	20,759	18,559	16,994	2,795	2,828
Room occupancy rate, %	60	25	65	26	33	23
Bed occupancy rate, %	49	20	52	21	28	20
Accommodated tourists	1,968,406	726,770	1,772,755	619,512	143,772	102,739
Accommodated on holiday trip, %	69	71	68	70	68	69
Accommodated on business trip, %	28	27	30	28	20	17
Nights spent	3,591,337	1,390,794	3,265,373	1,216,057	244,661	181,344
Average cost of a guest night, euros	46	35	48	35	31	30

From the SustainBaltic project and the interviews in this project, food services seem to be the weakest. Domestic tourists can bring along their own food from home or visit the sparse local shops, but restaurants and cafés are few, especially outside the summer season. There are a couple of high-end restaurants that also serve as tourist destinations, yet local fish do not appear very often on the menus (see Printsmann and Pikner 2019).

In additional to traditional accommodation services and widening Airbnb options (renting out summer-cottages), several bottom-up small-scale niche sites have emerged. This is a welcome development for diversifying target markets. One eco-village started off with basic facilities and without electricity but were fully booked during the COVID-19 spring-summer season (Figure 15).

Figure 15. Niche recreational facilities with open-air baths near the shore in Hara village
(photos by Tarmo Pikner 2020)

4.2. Landscapes and maritime and cultural heritage

Tourism can boom in areas of interest. Coasts have always allured people and the case study area has many peninsulas and bays scattered with erratic boulders. The physical environment together with long maritime traditions have created a maritime landscape appreciated both domestically and internationally. A large part of the area consists of Lahemaa National Park, being an attraction alongside its manorial estates.

According to the previous SustainBaltic studies and interviews, people appreciate the sea, beaches, pine forests, and the milieu of village architecture. The survey of this case study indicated that a significant portion of the respondents see their active role in preserving and/or developing the coastal

landscape (48% of residents (N = 758) and 37% of firms (N = 95)). The survey for companies also had an open opportunity to explain their activities if they had responded 'Yes' and 31 used this opportunity. The answers included taking care of coastal meadows and pastures, harbour-related activities, collecting reeds, cleaning up, taking care of communal spaces, and providing nature tourism services.

The sentiments of the inhabitants towards maritime culture was even stronger – 70% found that it exists on the Estonian northern coast. As the participants were encouraged to write if they had any questions then one e-mail was received asking what maritime culture meant in the context of the questionnaire. But this question was intentionally left open for the respondent to decide. The respondents could subsequently explain what they consider the main components of maritime culture – 580 respondents used this option and the core argument described or mentioned coastal/fishing villages with their living environment, history, harbours, boats, clean environment, beaches, access and activities. It was nice to notice that in addition to known historical values and physical sites people also appreciate intangible cultural heritage like traditions, beliefs and food and modern values, such as recreation.

Figure 16. An overgrown sauna building is still discernible in a military base camp in Suurpea village, Pärispea Peninsula
(photo by Anu Printsmann 2020)

Lahemaa National Park was established in 1971 for the protection, study and popularisation of nature and cultural heritage, including ecosystems, biodiversity, landscapes, ethnic culture and the sustainable use of the natural resources in northern Estonia (Loodusega koos 2021). Therefore, heritage has always been on the agenda but according to a recent heritage tourism study (Valk et al. 2021), Lahemaa is not among the top 10 most known areas of Estonia among foreign visitors. The investigation into monitoring the efficiency of policies looked at elements of Estonian cultural heritage and foreign tourism in the countryside, suggested key stories for tourists, mapped the interests of tourists, offered regional solutions and recommendations for target groups (central agents, such as ministries and Enterprise Estonia, municipalities, organisations, guides and makers of small heritage

objects). In this context, maritime culture could offer wooden boat building and hands-on fishing experiences.

4.2.1. Military heritage as part of Blue Economies

Military heritage is an aspect that is much discussed and where interest also exists both from domestic and foreign tourists, but the supply side is weak. Now the winds seem to be changing. Even the Heritage Board has a military heritage programme (Muinsuskaitseamet 2020). The traces of military legacies and their potential as heritage can be found in many villages in the case study area.

After WWII, the eastern part of the Baltic Sea was behind the iron curtain, where special permits were needed to visit friends or relatives living in the coastal area. The border zone was literally fenced off and most civil maritime activity ceased to exist and boats destroyed. A whole military infrastructure was created to fill that void: barracks for troops, rocket bases, concrete foundations for searchlights, watch towers and posts for surveillance. When the Soviet Army left (31 August 1994), considerable groundwork was abandoned and has remained as such until today (see Figure 16). Some of the restoration initiatives have created controversy as elements from eras other than the recent past seem more rescue-worthy. The locals have not so far been too eager to promote Soviet heritage but some sign-posting and story-collecting activities have emerged (Figure 17). Hara harbour sells tickets to access the secret research station for the demagnetisation of submarines.

Figure 17. Modern information board in Hara harbour overlooking Hara Island. Before WWII, several families lived there; it was a popular summer site for Baltic Germans. Locals consider it the birthplace of the famous Tallinn sprats giving work for around 300 people. During the Soviet period it was part of a submarine demagnetisation research base. Currently, it is part of Lahemaa National Park and nature has been left to take over at its own pace
(photo by Anu Printsmann 2020)

Coastal military heritage is not a Soviet invention; many lighthouses and harbours have a military or naval background. Information on battles is made known to the public on information boards (Figure 18). Shipwrecks are attractions for divers.

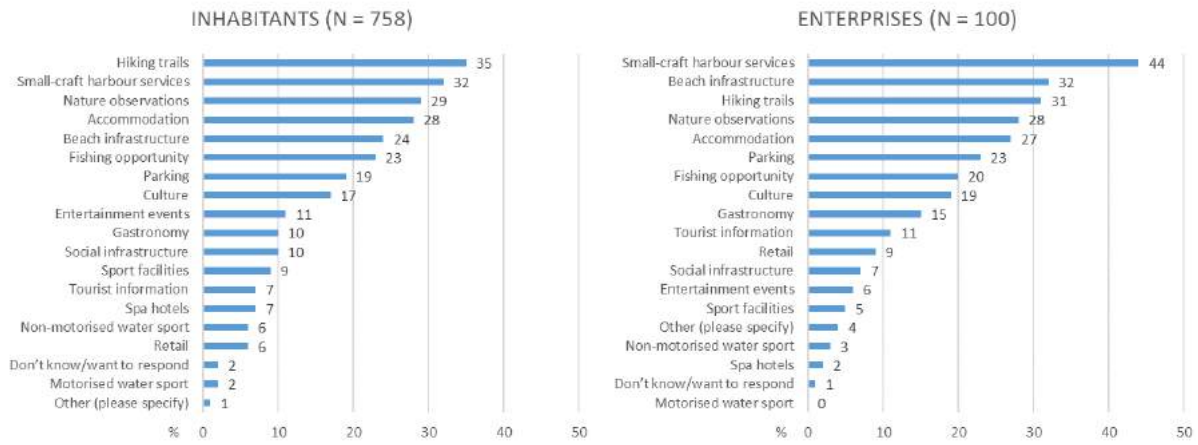
Figure 18. Commemoration site on the tip of the Juminda Peninsula for one of the most devastating naval battles in 1941, involving 52 ships and 25,000 people lost
(photo by Anu Printsmann 2020)

There are creative challenges in finding sustainable approaches to presenting and mobilising the military heritage along the multi-layered coastal and marine landscapes, which provide a necessary contribution to tourism related branches of BE.

4.3. Capacities and concerns related to sustainable tourism practices

Coastal tourism works, but to enhance it sustainably cooperation is needed. To advance tourism in the region, small-scale nature-friendly solutions are offered by residents and companies (Figure 19). The paramount importance of small-craft harbour services as nodes of tourism and mobility is expressively raised. The reluctance to permit motorised water sport vehicles is also obvious.

Figure 19. Tourism infrastructure needing advancement in the eyes of local inhabitants and enterprises/organisations



Both inhabitants (10) and businesses (10) added following aspects about infrastructural needs:

- Light traffic roads
- Guarantee coastal pathway for everybody to safeguard the freedom to roam
- Information on points of interest and on rest/camping sites and their rules of conduct
- Cleanliness infrastructure: toilets (without petrol stations there are few, especially with wheelchair access) and garbage bins; "If there are toilets in beautiful nature – there is no need for other infrastructure there"
- Restaurants, fast food places
- Nature protection (to reduce forest felling and build up the seashore)
- "If there is no canalisation and no high-quality water catchment basin and fast internet then there is no point in asking other questions, especially in the of Lahemaa National Park!"
- "Life in rural areas will become extinct". "For example, if there is a village shop then the village life prospers – but the plot for such activity could be possible to rent out for 1 euro. Private entrepreneurship will handle everything if infrastructure is supported by state/county/municipality"
- The LSIs are approached at the local level of spatial planning mainly through small harbours

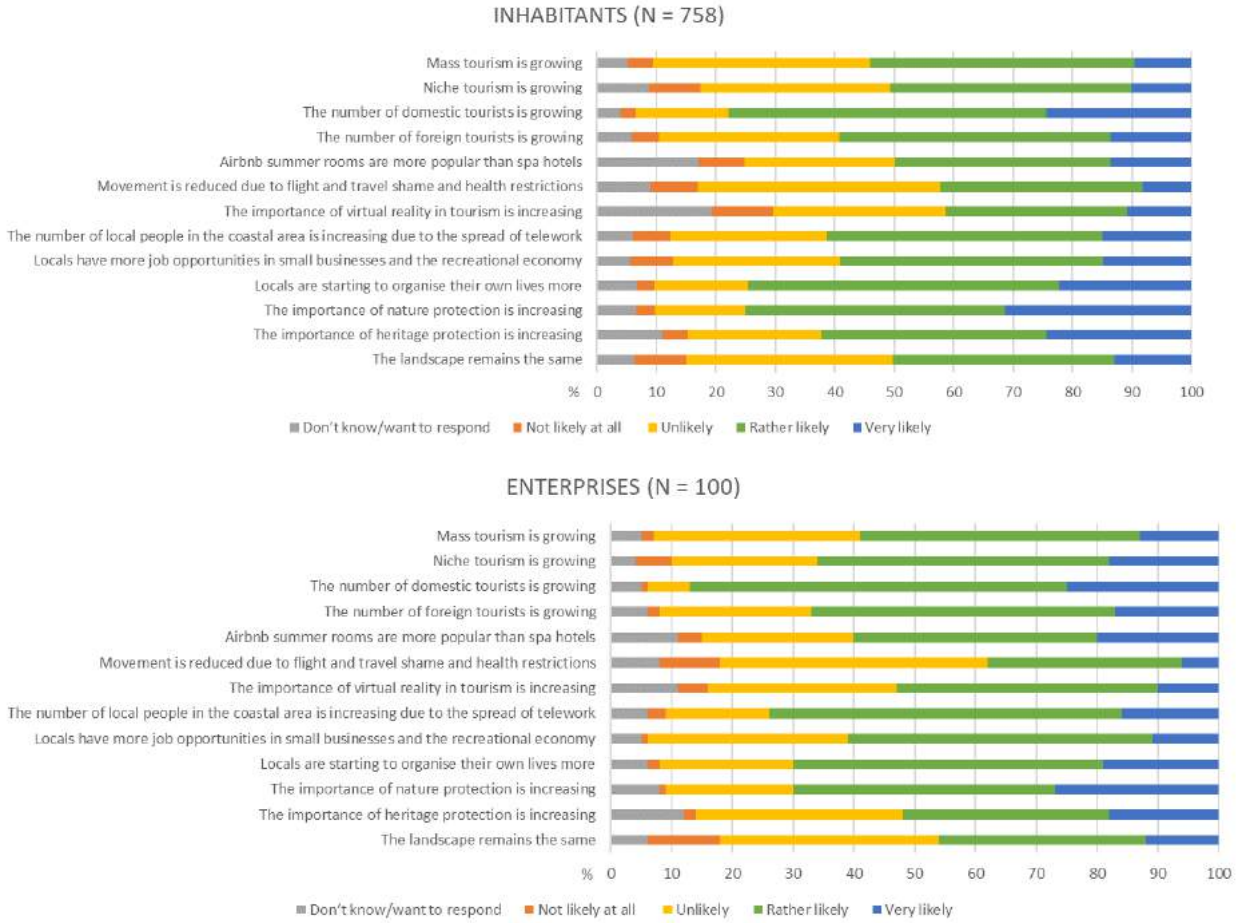
In order to ease the respondents into the scenario study and cross-reference the results, we investigated claims on future tendencies (see Figure 20). People do not believe in decreasing travel and virtual tourism but do seem to think that domestic tourism and teleworking will increase and that locals should take matters into their own hands. Respondents think that restrictions related to coastal areas will increase and nature preservation will have slightly bigger role than heritage protection.

As tourism includes a set of activities then complications also emerge on different levels. The controversies surrounding the state *versus* the municipality in accommodating the interests of local inhabitants, summer residents and tourists:

- The issues of summer-homes, remote working during the COVID-19 period and the option of a second registered place of residence in order to allocate taxes to the municipality remain unresolved. The level of social infrastructure and local services is found wanting
- The state has delimited and sent to the coastal municipalities the areas of flood-risk but some of these areas are already covered with private houses, which got building permits in early 2000s. Thus, the potential coastal flooding of some residential areas remains an issue and requires attention in spatial planning processes
- The municipality has to negotiate with the state in gaining land to establish parking lots near popular beaches. The state would like to sell the land via public auction, which would lead to establishing new residential houses near the shore
- The municipalities struggle with the complex approval systems of the state institutions in establishing facilities near the shore and/or achieving public status for a local beach

- Temporary noise related to the Rutja military defence fields
- Planned sand mining near Uhtju Islands

Figure 20. Future tendencies



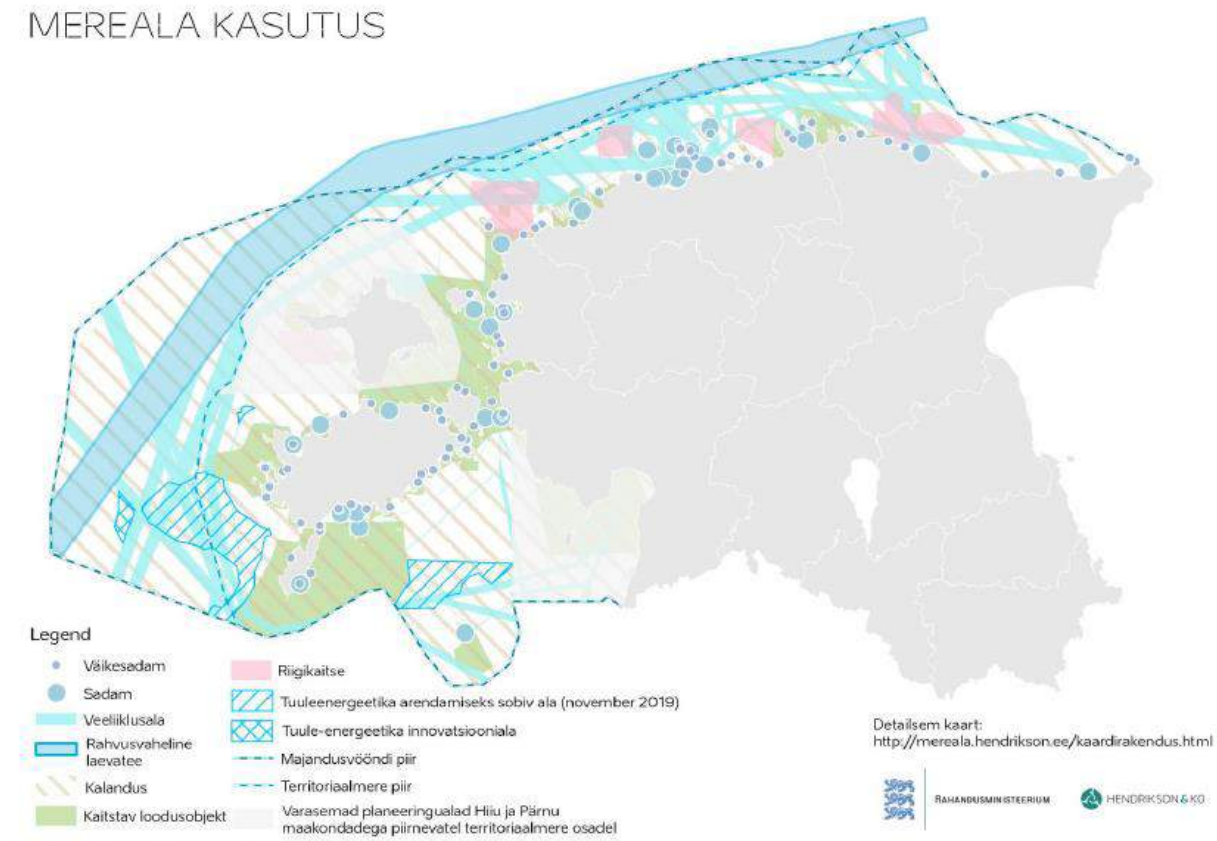
The issues addressed in meetings and interviews:

- Tourism remains a very seasonal activity and need HoReCa facilities and small-scale infrastructure development to be able to market it off season as well. It would also need the design and application of a region-based information strategy
- The coastal villages closer to the capital city are influenced by intensive seasonal beach visits. As the tourists are unevenly distributed then attitudes to them vary
- Local inhabitants greatly acknowledge the landscapes and maritime culture and want to benefit from tourist income but not from mass tourism, which is in step with regulations surrounding Lahemaa National Park
- Private property and freedom to roam on coastal pathways cause conflicts between the municipality, the community and private owners; on the other hand, there are good examples of oral agreements about the use of landing sites and beaches. Grazing on shore meadows and the rights of private landowners also generate some conflicts
- Some coastal village association are actively mapping and making visible local heritage (e.g. the Juminda association compiling the Kuusalu dialect-dictionary and the Käsmu association)
- Military heritage is underutilised. The inhabitants of coastal villages are reserved about presenting some maritime heritage publicly (e.g. traces of Soviet-era border guards, sites of former trade in contraband alcohol) for advancing tourism. The reason for this is that the village residents regard potential visitors and tourists as a disturbing issue in their (summer)home surroundings. This attitude has provided obstacles to the negotiations in designing public hiking paths and light-traffic roads in coastal areas. On the other hand, some people explained that erosion along the shore has made it partly impossible to display some historical sites and paths without crossing private property
- There is potential to elaborate collaborative maritime events (e.g. a sailing regatta)

5. Coastal mobilities

The case study area has the aim of making its network of small-craft harbours more multifunctional (Figure 21). The interviews indicated that establishing or reconstructing small harbours can unite but also divide local communities. Most of the harbours are privately owned, and diverse elements of social justice in relation to access and the extent of expected transformations converge. The commodification (through tickets) of access to an abandoned military harbour, and dividing permanent residents and influential summer-home owners wanting to establish amenity landscapes in the face of coastal-rural ideals also emerged. However, several small-craft harbours have enlivened maritime culture by providing sailing lessons for school pupils, spaces for community initiatives and seasonal gastronomy, infrastructure for sailing and fishing, and spaces sites for representing coastal military heritage.

Figure 21. The harbours (blue dots) in land-sea interactions in the Estonian Maritime Spatial Planning (source: Rahandusministeerium 2020: 17)



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5.1. Trends and challenges of mobilities

14% of the survey respondents have access to the sea via a boat, and ⅕ of these people go out on the sea daily during summer. 18% of the inhabitants have experienced accessibility problems on the shore. However, the problem of accessibility was considered much more acute by entrepreneurs (70%).

In the context of coastal tourism, the following means of mobility were mentioned in the survey as needing to be developed: light traffic (bicycle) roads, public transport, local transport, sea vehicles, connectivity with Estonian towns.

The LSIs linking coastal-marine tourism and recreation and mobilities bring together diverse infrastructure and social groups. The main practice-based groups and the infrastructure related to these LSIs are as follows:

- Coastal fishermen
- Second-home users
- Sailing yacht users and sailing tuition and practice
- Recreational hikers, camping and biking
- Divers
- Remaking and maintenance of heritage
- Caravan-car-park users
- Water sport and water-scooter users
- Recreational bathing and swimming
- Bottom-up marine rescue organised at the settlement/village level
- Trips and irregular connections to island(s)
- Public transport connections

The public survey indicates that mobility related tensions and trade-offs are part of life. Most often tensions and larger trade-offs are indicated in relation to the following coastal values and functions:

- Free access to the coast *versus* fenced private property
- Expressway highways *versus* convenient bike paths and hiking trails
- Private development of a small port *versus* public interests
- Bathing *versus* water sport

Even 70% of respondent enterprises in the survey indicated that there exist coastal accessibility problems (both moving on the land or on the sea); for example, the coastal pathway or harbour is blocked by a fence or private property signs. Interestingly, only 19% of the responding inhabitants indicated this coastal accessibility issue.

11% of the survey respondents have summer-homes, and about half of these respondents have their summer-homes outside the case study area. Only about 15% of the respondents argued that the summer-home users in the region actively communicate with the inhabitants in the neighbourhood.

5.2. Small-craft harbours and landing sites

An overview and basic principles for balanced spatial planning of small harbours is given in the SustainBaltic report (Kuusik et al. 2018). The ongoing project studied further tendencies in the extended scope of coastal areas. The LSIs and possible trade-offs and/or coexistences within marine spaces was analysed through mini-cases within the study area. The study area includes semi-industrial harbours and recreation-oriented harbours (see Figure 7).

The small harbours in the case study area coexist with the cultural heritage of building wooden ships and of coastal fishery practices. In addition to small harbours, access to the sea in boats is also made possible through *natural* landing sites (*lautrid*), which can be used by one family or shared within a community. For example, the villages of Hara and Virve have rich traditions of small landing sites. The heritage of boat building (and its legal framework) and of coastal fishery practices in the Lahemaa National Park have been well mapped by a recent study (Kelli et al. 2020), which provides a general typology of landing places along the shore of Lahemaa:

- Landing sites belonging to farms – used mainly by one farm, more common in row-type villages like Kiiu-Aabla, Viinistu, Käsmu etc.
- Common landing sites for a village – more common in locations on peninsulas where netsheds also exist – Juminda, Pärispea, Pedassaare, Lobi, Natturi, Altja
- Larger areas of coastal villages that include landing sites for shore-based farms and also farms located across a village road (e.g. in Viinistu and the villages of Turbuneeme). These kinds of

larger systems of landing sites on the shore exist in most coastal villages. However, in the Soviet period these systems mainly got destroyed because fishermen could access the sea only from very few places. However, one very well preserved landing site system is located in Viinistu village, where more than 40 landing sites are still visible and in use on the shore (Kelli et al. 2020)

The accessibility and fishing rights of coastal fishermen is seen as key to preserving important aspects of coastal heritage. Here one point of tension is caused by a legal constitutional issue for giving preferences to coastal fishermen instead of treating every fisherman equally. According to Kelli et al. (2020), these preferences are justified (in regard to some legal contradictions) because of the international responsibility for heritage maintenance and minimising the negative effect of the Soviet era destruction of the coastal fishery due to the border regime.

In the following there are three mini-cases that look at small harbours and indicate the coastal values and diverse rationalities of advancing LSIs. These examples reveal some possible trade-offs in integrating coastal functions and means of marine space mobility.

5.2.1. Loksa industrial harbour

Loksa harbour remains outside (but territorially surrounded by) the Lahemaa National Park because the town and harbour have industrial shipyard legacies. The harbour was privatised in the 1990s and has changed owners. The latest owner had big plans for producing concrete elements for the construction sector but these plans largely failed. Nevertheless, the harbour became related to industrial production which mainly uses transport connections on the land, and the harbour remains an enclosed territory within the city. This means that the potential of the harbour in contributing to BE primarily remains unused. The municipality has limited capacity for negotiating with the private owner. Loksa municipality is motivated to connect seashore with the town centre, which is somewhat limited by the requirements of coastal nature preservation (Figure 22). Slightly similar trends take place in **Aseri harbour**, where the collaboration with the local municipality is better for elaborating the harbour area. These two harbours relate to BE mainly via marine transport, although the municipalities would like to plan towards more integrated coastal-marine spaces where harbours also contribute to public LSIs.

Figure 22. Nexuses around Loksa harbour – an enclosed under-used shipyard harbour beside the sandy beach under nature protection regulations
(photos by Tarmo Pikner 2020)

5.2.2. Hara harbour and military legacies

The role of culture and the revitalisation of post-Soviet heritage have gained a particular role in the context of Hara harbour (see also sub-chapter 4.2.1). The public presentation of Soviet military legacies generated contested negotiations in the coastal village community (Figure 23). Some community members were not proud of presenting (e.g. guided tours and permanent posters) dark legacies for the purposes of tourism and opposed the fencing off of the huge unused private harbour territory that was to that point freely accessible.

Figure 23. Hara harbour in process
(photos by Tarmo Pikner 2019)

The marine mobilities here are supported by the extraordinary depth of the former military harbour. The old former main pier of the submarine dock has been left to decay and the new harbour pier, together with additional facilities, is just being built next to the ruins. Sailing lessons gained popularity quickly because they were arranged in collaboration with schools, which provided the theoretical basis before the going out on the water. The reconstruction of the harbour has constantly had to negotiate the nature protection regulations because of the adjacent Lahemaa National Park. There were plans to introduce fish-farming activities in the Hara harbour area as well.

Interviews with village residents indicated particular vibrations of submarines, boundary crossings and changes to coastal landscapes related to the construction works and the possible subsequent effects of such a large harbour. Hara Island, in regard to its proximity to the coast, remains mainly unvisited. According to stories, this island remains slightly mystical in terms of heritage, rich ecologies and many snakes.

5.2.3. Käsmu (new) harbour within a cultural milieu

The maritime culture of ship building, sailing education and the homes of wealthy captains has generated a particular milieu in the coastal village of Käsmu. Already in the Soviet-era this village became a popular summer resort supported by public facilities. Currently, Käsmu has a rather high-prestige image among rural villages. Several publicly known intellectuals and very wealthy business actors have their second-homes in Käsmu. The intellectual and heritage sphere of the village are significantly supported by the Writers House and Käsmu Maritime Museum.

The Village Association has been active in designing public signs and introducing code of conduct for the village (e.g. no mowing lawns with machines on Sundays). The association established a tax for the organisers of large-scale events (e.g. open-air concerts in summer) and this income is used to improve the village living environments. For example, a parking lot was established for tourist buses as these generate noise and a sense of insecurity when they drive along the narrow village streets.

Regarding the ship-building heritage, Käsmu did not historically ever have a large harbour, and ships used to lie off the land near the shore. The current boat-harbour does not classify formally as a harbour, but it is actively used by fisherman and pleasure crafts and maintained by the village inhabitants. But the group of wealthy second-home owners would like to see a modern yacht harbour in Käsmu (see Figure 24). The proposal for an extended harbour in Käsmu began in 2014. The harbour is situated on Natura 2000 and Lahemaa National Park territory.

The interviews and public debates indicate that the plans to reconstruct and extend the small harbour into a modern tourism-oriented facility divided the village community. The tensions are presented as a conflict between the values of the wealthy summer-home owners and *real* village residents. However, the stories and arguments indicate that the distinctions between these two groups are not very clear.

The Maritime Museum (leasing facilities and land from the state) located just next to the current and planned harbour has a significant role in mobilising marine culture-based arguments opposing the modern infrastructure. On the other hand, the wealthy entrepreneurs and new harbour initiators own land plots next to the museum.

Figure 24. The current small harbour and the planned yacht harbour in Käsmu
a) photo by Tarmo Pikner 2019
b) Käsmu Maritime Museum 2016

Paradoxically, tourist value is used as an argument by both sides in the conflict but the BE logic appears to be slightly different: elitist seasonal sailing visitors vs. nature-based tourism. The extended modern infrastructure is sharply opposed to the cultural memory and maritime milieu of the village. The harbour and its further plans are presented as part of strengthening Käsmu as a holiday village for the elite and intellectuals, where sailing is an essential part. Interestingly, differences with the nearby village of Võsu having a noisier resort atmosphere are also articulated. The supporters of the extended harbour see that sailing facilities add to Käsmu's tourist profile in the right way by bringing more wealthy and educated visitors.

Käsmu village organised a public vote in 2017 about the plans for the new harbour. The formally registered inhabitants and real-estate owners were able to participate in a special referendum. About ⅔ of the participants agreed with the reconstruction plans. However, this public vote was not legally binding.

Cultural heritage and ecological conditions form important arguments against the reconstruction plans. The thematic discussions reveal, for example, the following aspects between extending the infrastructure and the existing village milieu:

- The ecological conditions are not suitable for establishing a deep harbour in Käsmu, and therefore historically ships used to lie off the land
- The need for 50 to 70 berths in the new harbour is not justified. The nearest yacht harbours are around 15 nautical miles away (Vergi, Viinistu) and nearby harbours have been under used by sailing boats
- The interests of the village inhabitants should be involved directly in the planning and managing of the harbour. The current financing schemes are not transparent
- The private sailing harbour would destroy the peaceful Käsmu village life, and this kind of "citadel" is more suited to Võsu
- The scale of the new harbour is more suited to the towns of Kunda and Loksa. The plans are in conflict with heritage milieu regulations
- The Käsmu Maritime Museum would lose the historical ship building area on the shore
- The elaboration of the existing boat harbour would support public space, views from the coast/from sea, and community interests providing a place for celebrating midsummer events
- There is a need to preserve existing spiritual places, and halt the pollution of coastal areas
- The contribution of the extended harbour for the village community is unclear. Some private harbours (e.g. Esima) demonstrate that public access to the harbour would become limited

- Käsmu village is already among the top tourist destinations in Europe, it is a key sight in Estonia like the old-town of Tallinn. Tourists prefer authentic places not modern projects
- The large harbour may lead to shopping malls and spas and the Americanisation of the area
- A coast cast in concrete is not a valuable accepted material for presenting the landscapes of this village of sea captains

The court case is ongoing. The opponents of the new harbour won the first stage of the proceedings because alternative sites for establishing a larger yacht harbour in or near Käsmu were not discussed and there existed conflict of interest in the process of passing the detailed plan for the project. Therefore, the process continues at the next level of the judiciary, where the municipality stands on the same side as the wealthier group behind the new yacht harbour. Regarding the ongoing court case, Haljala municipality organised a public procurement and approved the building rights for the extended harbour in 2020. The decision of the court of second instance is expected in 2022, and this decision could remarkably change the coastal milieu and LSIs in Käsmu.

5.3. Towards integrated access and sustainable recreational mobilities

- The mobility interfaces connecting land and sea require wider approach because mobility nodes are multifunctional (e.g. harbour grounds are used for caravan parks, accommodation, guided tours, trainings etc.) and connected to (communicative) accessibility issues and ecosystems
- Accessibility to seashore causes tensions, and often coastal accessibility is based on informal agreements. Therefore, it is important to recognise heritage and everyday usages connected to small landing sites and community places on the shore
- Beside of establishing new (mobility) infrastructure there is needed to think about possible sharing of coastal-marine spaces and of vehicles. These issues and longer perspective of maintenance become even more important in the perspective of sustainable transition
- The remote working possibilities can change demographic profile, seasonal dynamics and demands on social services in rural coastal villages. This will increase the role of public transport connections and light traffic roads needed for local inhabitants and for tourists as well
- There are well-mobilised sailing lessons for pupils and organised summer training camps focusing on sailing. Some schools and sailing clubs have established collaborative relations with small-craft harbours
- The coastal accessibility complex matter and therefore different stakeholders should be empowered in participating in the early stage of spatial planning processes. The mitigations between BE initiatives, nature preservation and cultural heritage can find common concerns and care about future changes

6. Scenario study

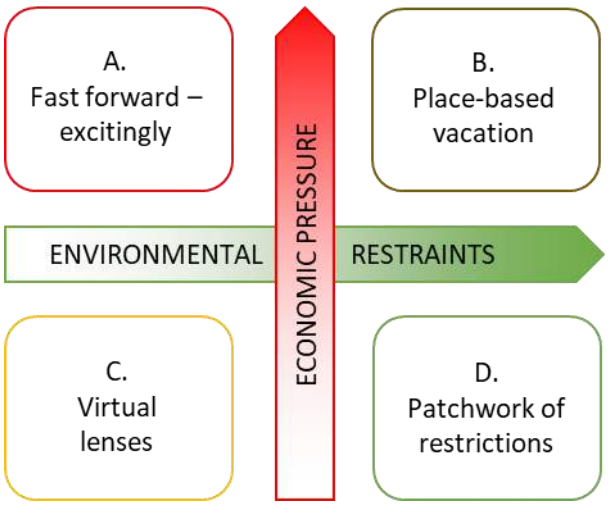
Scenarios are valuable for depicting conceivable future situations and elucidating the driving forces behind them. They have value only if there are several different choices – thinking through all the probable options, would warn us of unpleasant surprises. There is seldom a situation when one scenario is realised to its fullest extent (Antrop 1997, 1998, 2000, 2005), and the reality is usually a combination of scenarios (Palang et al. 2019).

The aim of this scenario study was to gather sociologically representative feedback on the development tendencies illuminated by the work of previous projects mostly using qualitative interviews. The dominant theme throughout the case study is the amount of tourism desired while not exceeding the carrying capacity of both inhabitants and the natural environment and also preserving heritage – as coastal landscapes and maritime culture are the resources of the BG in the area. How spatial planning solutions addressing development trade-offs in coastal areas look holistically is important knowledge for landscape stewardship and multi-level governance. Explorative scenarios (IPBES 2016) or forecasting future options were selected in order to find out what people want using exaggerated texts and images of the future as a thought-provoking tool (see LSA WP 2 – *Spatial planning solutions for addressing development trade-offs in coastal areas* under the leadership of the Baltic Environmental Forum Latvia with the help of all partners compiled "Compendium of Methodologies on How to Address Land-Sea Interactions and Development Trade-offs in Coastal Areas" for more methodological issues).

6.1. Development of scenarios

From the previous studies in the area it was clear that the scenarios have to differ along continua as 'Environmental restraints' and 'Economic pressure' (Figure 25).

Figure 25. Four explanatory scenarios on integrated coastal tourism and mobility planning along the development factor axes 'Environmental restraints' and 'Economic pressure'



The year of 2040 was fixed as "the future", as the majority of the respondents would remember a period 20 years ago – the year 2000, thus perhaps facilitating a comparison of what can be achieved in 20 years, especially with regard to mobility and information and communication technologies (ICT). 20 years from now, the future is an unknown "land", so scenarios can only draw a few lines of development and their effects in order to seek agreement about which alternative is the most appreciated.

Brainstorming based on previous research was used to produce fields of areas to be described using short statements within the axes. The key factors / main points of the scenarios were: values of

tourists and travellers, safety of the Baltic Sea area, trends in global economy (e.g. sharing and circular economy), urbanisation and recreational economy, ICT, mobility and accommodation, environmental conditions and climate change, aging population and silver economy, destination shaping and co-creating of heritage, interested parties, stakeholders and responsible bodies. This table was then written into narrative scenario form aiming to create a page long description with the names of the scenarios agreed upon later (referred here and below as Scenarios A, B, C and D).

The narrative scenarios were qualitatively assessed by applying participatory methods. First, students (MSc level in Environmental Management and Urban Governance at Tallinn University) had to amend the text and draw images as a group work (Figure 26). As these were tested in the autumn of 2019, they did not foresee the decline in travel and tourism due to COVID-19 pandemic. They were hesitant about the urbanisation trends as it continues but on the other hand many families choose to move to the countryside with off-the-grid living and private electricity production – perhaps a more polarised rural landscape is the outcome. The students thought that economic prosperity continues and that climate change would not affect the coastal landscapes in Estonia so immensely.

Figure 26. Depictions of early versions of the narrative scenarios by students

Second, participatory methods were used in a public meeting with stakeholders in Võhma (Figure 27). A short overview of the scenarios with the students' drawings was presented. As the participants were older, the discussion touched upon Scenario C *Virtual lenses*, that it poses a threat and that all that is valuable in the area, such as nature and (military) heritage, could be ruined without proper acknowledgement and management. The participants also saw the scenarios as progressive: initially to strive for Scenario A, subsequently falling back to B, then C and D. Active tourism and the presence of summer-home owners will decide whether an area is vigorous or not. Tourists coming from the sea are close to non-existent. The number of tourists is not a problem, only the infrastructure needs to be built to meet their wishes. Therefore, proper care and stewardship will guarantee the best balance for BG in the area.

Figure 27. Public meeting for the qualitative assessment of early versions of the narrative scenarios with stakeholders in Võhma
(photo by Anu Printsmann 2019)

Third, input was sought from local future generations – 9th graders at Kunda Secondary School and at Võsu School (see Figure 28). After having had the scenarios introduced to them, they had to write as a group task about what is currently good and bad in relation to the current coastal situation to warm them up. The children responded positively about coastal infrastructure development and noted the lack of it at beaches. Their main concern was litter. The pupils were given a list of keywords (tourism, environment, heritage etc.) and asked for a brief explanation of what changes they would expect by 2040 in their designated scenario. The main trend seemed to be that people would move to the cities and there would be environmental degradation – perhaps the keywords functioned to lead the students somewhat to these answers. And backed by discussions in the newspapers – a new nuclear power plant is possible in Kunda. Based on their short story they had to create an image of how it would look in the landscape.

Some meetings were cancelled because of the COVID-19 outbreak and lockdown during the spring of 2020, but we felt we had enough input to move forward with the quantitative feedback. Ironically, during the process of this study, life surprised us with a scenario that our wildest dreams could not imagine influencing the majority of the fields in the area.

As the meetings with the students and schoolchildren did not provide coherent visual material, artist Aleksandra Ianchenko was hired to envisage the scenarios provided with a photo-collage of the case study area, amended descriptions and drawings. A current composite image was formed initially (see Figure 29) and then through a series of consultations for each object and their development (e.g. the existence and form of a harbour or beach-building, how actively the sea is used, presence of aquaculture etc.) in different scenarios, the pictures were finalised.

Figure 28. Depictions of early versions of the narrative scenarios by local schoolchildren

For the quantitative feedback on the scenarios, the long narrative versions of the scenarios were condensed and abridged. We felt that texts longer than a page for each of the scenarios would strain the attention span of respondents while the questionnaire contained other topics as well. The artist's illustrations would give a holistic perception of the landscape appearance and driving factors even without reading the paragraph concerning the respective scenario (Appendices 1 and 2).

Figure 29. Depiction of the current situation as a combination of fragments from several coastal villages in northern Estonia – Scenario zero
(illustration by Aleksandra Ianchenko 2021)

6.2. Public quantitative feedback

In order to receive the necessary public quantitative feedback for the scenarios, questionnaires were devised for inhabitants and enterprises/organisations (Appendices 1 and 2). A series of consultations was conducted with the survey company Turu-uuringute AS to achieve the optimal output for the questionnaires and the scenario study.

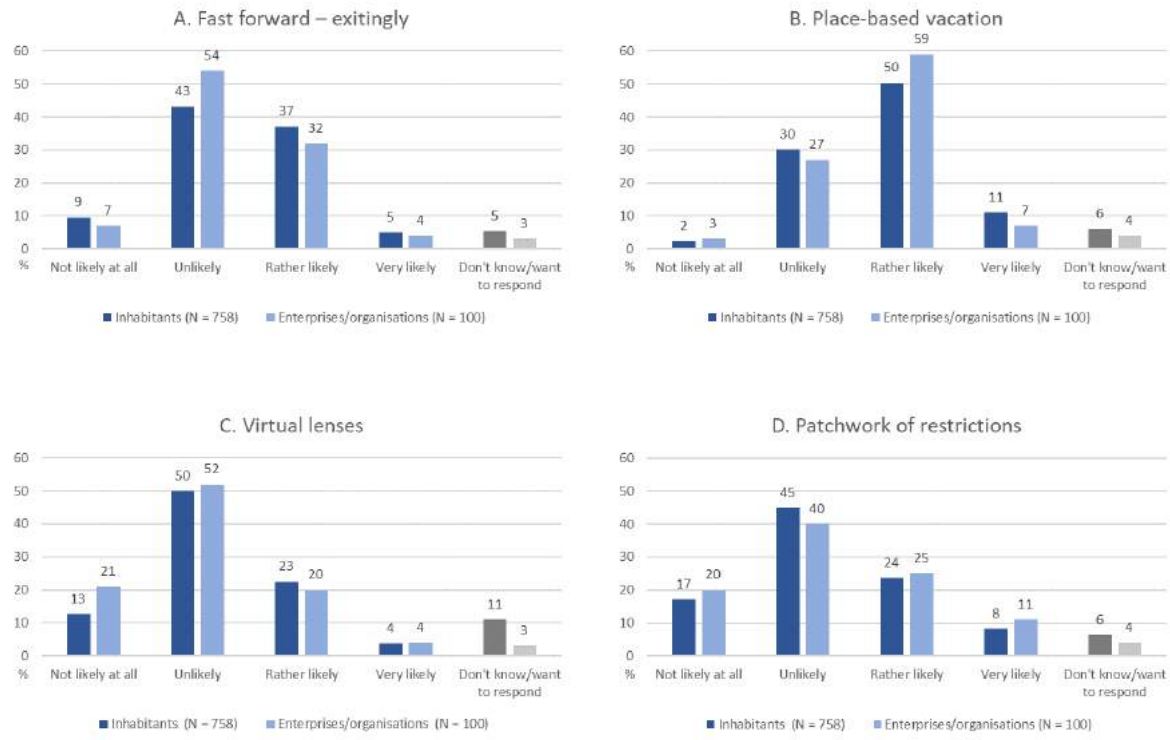
In the scenario section of the questionnaires, the respondents were presented with the current composite image with a brief explanation. Then each of the scenarios was introduced with a few sentences and an image. After each scenario, people were asked to rate its likelihood on a scale of 'Not likely at all', 'Unlikely', 'Rather likely' and 'Very likely.' A 'Don't know/want to respond' option was also included, as the question was compulsory. After evaluating all four scenarios, a control question was prompted: "Which of these scenarios You consider the most LIKELY?" with the 'Don't know/want to respond' option also included. Since the traits from the different scenarios might all seem probable resulting in all scenarios being assessed as 'Likely' to happen, then this forced them to choose one scenario. This was followed by an open-ended non-compulsory request for them to explain the reasons for their choices – what trends specifically interest them, as the scenarios are represented holistically on the landscape level. Otherwise, open-ended questions were avoided in the rather long questionnaire. The session closed with the question "Which of these scenarios You consider the most PLEASANT?" with 'Don't know/want to respond' also included, as *likely* and *pleasant* might not overlap. The most pleasant option would answer the question – what do people want.

Both questionnaires were available in Estonian and Russian.

The scenarios were tested in a representative survey of inhabitants (N = 758) of the coastal villages and the BE enterprises/organisations (N = 100) of the four municipalities in the test area. The enterprises/organisations had a slightly different questionnaire (Appendix 2) but their role as motors for local development cannot be underestimated in the coastal tourism-driven BG.

The results did not offer any big surprises. The assessments tended to use 'Unlikely' and 'Rather likely', avoiding extremes (Figure 30). Therefore, the four-point scale ('Not likely at all', 'Unlikely', 'Rather likely' and 'Very likely' with 'Don't know/want to respond') was used instead of the odd-number scale where the middle option would have most likely been selected.

Figure 30. Assessment of the likelihood of each scenario individually



Scenario B *Place-based vacation* is perhaps the most similar to the current situation, featuring heritage and small-scale development, which since it is familiar it is therefore 'Rather likely' to happen.

In comparison, the results from the inhabitants and enterprises/organisations did not differ much. Scenario B was deemed 'Rather likely' to happen, followed by Scenario A *Fast forward – excitingly*, Scenario D *Patchwork of restrictions* in third place and lastly Scenario C *Virtual lenses*. The ranking of 'Unlikely' to happen was slightly different: the inhabitants ranked Scenario C first, followed by D, A and B – the exact reverse of 'Rather likely'; the enterprises/organisations ranked Scenario A first, followed by C, D and B.

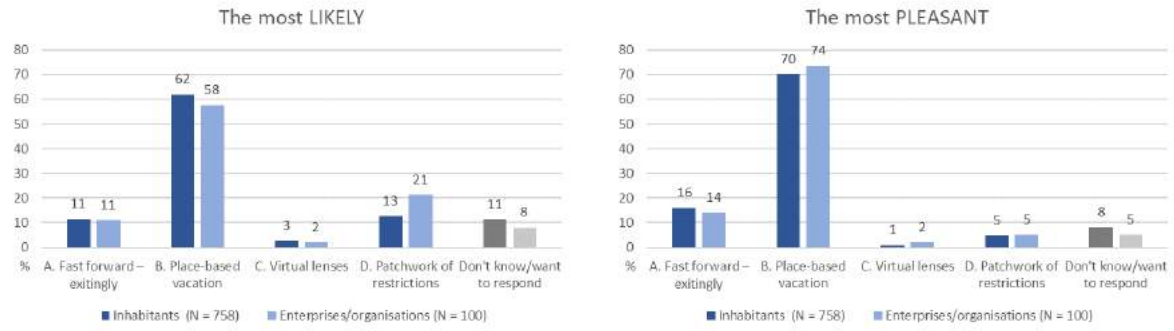
The opinions were most polarised about whether rapid economic development can take place or not, comparing the similarly high columns of 'Unlikely' and 'Rather likely' in Scenario A *Fast forward – excitingly*. This also simultaneously signifies the largest difference between the evaluations of the inhabitants and the enterprises/organisations of Scenario A being 'Unlikely', where the latter did not see the expedited development taking place. On the other hand, the enterprises/organisations support Scenario B *Place-based vacation* as attractive possibly due to the suitability of small and medium sized businesses.

When considering both 'Not likely at all' and 'Unlikely' then Scenario C ranked the highest in the survey groups. Despite the COVID-19 pandemic or travel shame and Estonian e-services, *Virtual lenses* are not appreciated.

Scenario D *Patchwork of restrictions*, which was ranked second in terms of unlikeliness, was the most evenly distributed of them all and high nature conservation restrictions with low economic activity does not suit either inhabitants or enterprises/organisations. In previously gathered data, many indications were found on the constraints favouring nature and hindering economic development, thus making it a rather realistic version.

The individual likelihood of the scenarios was checked using the question "Which of these scenarios You consider the most LIKELY?" resulting in the order of Scenario B, followed by D, A and C resembling the individual evaluations (Figure 31). This correlates well with the prediction that B *Place-based vacation* and D *Patchwork of restrictions* reflect the current realities the most.

Figure 31. Assessment of the likelihood and pleasantness



The answers to the open-ended question about the reasons behind selecting the most LIKELY scenario were then analysed. Inhabitants gave 270 and enterprises/organisations 45 causes mainly in favour of balanced development, less restrictions and valuing local qualities. Apparently affected by COVID-19 pandemic the belief in teleworking and growth of domestic tourism prevailed. The scenarios were handled as a thought-provoking tool and the respondents felt that the scenarios were over-exaggerated in aiming towards enhanced integrated coastal mobility and tourism planning in a sustainable way.

When asked "Which of these scenarios You consider the most PLEASANT?" – Scenario B *Place-based vacation* scored the highest. Interestingly enough, economic development (Scenario A) was favoured over more nature-based tourism (Scenario D). In the evaluation of pleasantness Scenarios A and D switched places compared to the assessment of likelihood.

In conclusion, the most appreciated scenario was Scenario B *Place-based vacation*, as it resembles the current situation (heritage and small-scale entrepreneurial activity) the most – being a kind of prolongation of the current trend, as previous studies have also indicated (Palang et al. 2000, 2019). On the axes (see Figure 25), it was placed both high in environmental restrictions and economic development – hanging in the balance. Although Scenario D *Patchwork of restrictions* was deemed more likely to happen than Scenario A *Fast* forward – excitingly, the preference for them was reversed both for inhabitants and enterprises/organisations. This may hint at the opinion that too many nature protection restrictions hinder economic development in somewhat marginalised areas. Therefore, BG can be interpreted as a positive alternative. Scenario C *Virtual lenses* is considered both unlikely to happen and the least favourite.

7. Key issues and proposals in coastal planning

Interactions between land and sea highlight the infrastructure in the coastal area, which influences the experience of coastal landscapes and sea-bound economic activities. Sustainable Blue Economy is a rather new field for the public, and is not necessarily associated with economic growth. The transition from Blue Growth towards Sustainable Blue Economy is also taking place in political agendas. The study indicates that coastal planning and the governance of concerns related to the Blue Economy bring together various stakeholders and scales of decision-making. The study highlights gaps and challenges for inter-scalar cooperation. The following issues should be tackled for advancing the entrepreneurial environment of the Blue Economy:

- If Blue Growth and Sustainable Blue Economy are considered as prioritised areas of development, then the methodology of collecting thematic statistics at all levels (enterprise, local, regional, national and EU-wide) should be reconsidered
- There is a challenge to translate the framework of the Estonian Maritime Spatial Plan to local context for elaborating other fields of Sustainable Blue Economy (e.g. aquaculture) besides coastal tourism, which is currently predominant in the studied area
- Business support organisations could come together with entrepreneurs to network capacities in the fields of Sustainable Blue Economy and beyond
- Multi-level (especially local and regional) round tables could be convened for enterprises, inhabitants and municipalities to gather ideas and share visions and responsibilities to improve cooperation
- Local stakeholders could be empowered to participate in coastal planning processes to contribute in finding sustainable solutions and minimise future conflicts
- The municipalities should be provided the means to gain additional capacity for dealing with (potential) increased rights in the planning of coastal-marine areas
- There is a potential to empower the existing municipal districts (*kandid*) and community assemblies in multi-level cooperation

The study indicates that coastal tourism is a rather wide and blurred field of Blue Economy, which is difficult to make visible for sustainable planning only through statistics. Economically oriented tourism practices coexist with the means for recreation and second-home usages, both of which are based on valuable nature reserves, cultural heritage and coastal landscapes. This study shows that a significant part of the respondents perceive their active role in preserving and/or developing coastal landscapes. This means that the active participation of local communities could be empowered in designing the coastal infrastructure and tourist services. Based on the results of this case study, it is possible to indicate the following aspects for advancing coastal tourism:

- Maritime culture is important for the local inhabitants, and it is important to consider how to capitalise on that culture in tourism so that the heritage survives while providing tourist experiences
- Military heritage (including underwater objects) is underutilised but there is interest in this area both from domestic and international tourists. The challenge is to link the heritage sites within wider thematic networks/paths
- Visualisations and applications of scenarios in planning have the potential to indicate the relationship between maritime culture and the Blue Economy
- Transport connections and mobility are important in tourism in that they provide access to services and influence everyday living environments

- Small scale tourism infrastructure that does not require huge investments could nevertheless contribute to recreational services and niche-tourism (e.g. connected hiking trails, beach infrastructure)
- Niche tourism needs to be made more visible to generate linkages between local heritage and international trends
- The natural environment and the economy both matter for the local inhabitants; therefore, developments must suit the current human scale – the feel of the landscape should not substantially change – large scale developments will not be accepted

Coastal tourism and recreational practices are widely based on mobility (or mobilities), which is dependent on accessibility and (informal small) infrastructure enabling interactions between the land and sea. The study explicitly pointed out tensions between landscape values, access to the seashore and uses of coastal areas. The following selection can contribute in the process of considering sustainable mobility solutions in coastal areas:

- Small-craft harbours are multifunctional nodes in coastal tourist (seasonal) services. The road map for the developmental needs of small harbours would support strategic nodes of tourism and mobility
- Beside small harbours, it is important to recognise small landing sites (*lautrid*) to safeguard mobile access and everyone's right through the freedom to roam
- Motorised water sport can cause conflicts, therefore integrated solutions are required in general local plans
- A participatory approach to the design of coastal infrastructure can contribute to sharing coastal spaces and shared economy solutions
- Local municipalities need to rethink the role of second-home users and the quality of public services because of the ongoing growth of teleworking, which allows more flexibility to spend more time in rural areas and coastal villages
- Ensuring the (mobility- and place-based) continuance of natural, cultural and military heritage within Blue Growth is a challenge in the area of the study
- Carbon/climate-neutral transport solutions require novel approaches to mobility practices and technological design
- (International) tourism and related mobility flows have been extensively influenced by COVID-19. Therefore, there is a need to reconsider domestic tourism and the resilience of local communities in the post-pandemic world

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9. References

Antrop, M. 1997: The concept of traditional landscapes as a base for landscape evaluation and planning. The example of Flanders Region. Landscape and Urban Planning 38 (1–2): 105–117. https://doi.org/10.1016/S0169-2046(97)00027-3

Antrop, M. 1998: Landscape change: plan or chaos? Landscape and Urban Planning 41 (3–4): 155–161. https://doi.org/10.1016/S0169-2046(98)00068-1

Antrop, M. 2000: Background concepts for integrated landscape analysis. Agriculture, Ecosystems & Environment 77 (1–2): 17–28. https://doi.org/10.1016/S0167-8809(99)00089-4

Antrop, M. 2005: Why landscapes of the past are important for the future. Landscape and Urban Planning 70 (1–2): 21–34. https://doi.org/10.1016/j.landurbplan.2003.10.002

Centre of Registers and Information Systems 2020: EMTAK fields of activities. https://www.rik.ee/en/e-business-registry/emtak-fields-activities

Estonian Land Board: https://maaamet.ee

European Commission 2014: Blue Growth infographics. https://ec.europa.eu/assets/mare/infographics

European Commission 2020: Blue Growth. https://s3platform.jrc.ec.europa.eu/blue-growth

European Commission 2021a: European Green Deal: Developing a sustainable blue economy in the European Union. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2341

European Commission 2021b: Sustainable blue economy. https://ec.europa.eu/oceans-and-fisheries/ocean/blue-economy/sustainable-blue-economy_et

European Commission, Directorate-General for Maritime Affairs and Fisheries 2021: The EU Blue Economy Report. 2021. Luxembourg: Publications Office of the European Union. https://data.europa.eu/doi/10.2771/5187

Gee, K.; Kannen, A.; Adlam, R.; Brooks, C.; Chapman, M.; Cormier, R.; Fischer, C.; Fletcher, S.; Gubbins, M.; Shucksmith, R.; Shellock, R. 2017: Identifying culturally significant areas for marine spatial planning. Ocean & Coastal Management 136: 139–147. https://doi.org/10.1016/j.ocecoaman.2016.11.026

Haljala valla aleviku- ja külavanema ning kandikogu statuut 2019: https://www.riigiteataja.ee/akt/429052019008

Haljala valla arengukava 2018–2030: https://www.riigiteataja.ee/akt/423102018020

Haljala valla üldplaneering 2019: https://www.haljala.ee/uldplaneering

Hietala, R.; Ijäs, A.; Pikner, T.; Kull, A.; Printsmann, A.; Kuusik, M.; Fagerholm, N.; Vihervaara, P.; Nordström, P.; Kostamo, K. 2021: Data integration and participatory process in developing integrated coastal zone management (ICZM) in the northern Baltic Sea. Journal of Coastal Conservation 25 (5: 47). https://doi.org/10.1007/s11852-021-00833-4

IPBES = Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services 2016: The methodological assessment report on scenarios and models of biodiversity and ecosystem services. Bonn: Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. https://ipbes.net/assessment-reports/scenarios

Jerzak, K.; Shrayer, M.D.; Krośnicka, K.A.; Lorens, P.; Zaucha, J.; Pardus, J. 2019: The essence of marine and coastal space – an interdisciplinary perspective. Europa XXI 36: 15–34. https://doi.org/10.7163/Eu21.2019.36.2

Kase, K. 2019: Eesti kohalike omavalitsuste huvid mereala ruumilisel planeerimisel. Magistritöö Geodeesia ja maakorralduse õppekaval. Tartu: Eesti Maaülikool, Metsandus- ja maaehitusinstituut. http://hdl.handle.net/10492/5191

Katila, J.; Ala-Rämi, K.; Repka, S.; Rendon, E.; Törrönen, J. 2019: Defining and quantifying the sea-based economy to support regional blue growth strategies – case Gulf of Bothnia. Marine Policy 100: 215–225. https://doi.org/10.1016/j.marpol.2018.11.035

Kelli, A.; Paulus, A.; Larsen, P.B.; Kindel, M. 2020: Traditsioonilise rannakalanduse ja merenduse väärtuste kirjeldus ja seisund nii ajaloolises kui tulevikuperspektiivis. Universitas Tartuensis: Keskkonnainvetseeringute Keskus. https://juminda.ee/wp-content/uploads/2020/03/Rannakalandus-14-3-2020-final.pdf

Kotta, J.; Loite, S. 12.02.2021: Rannakarbikasvatus puhastab Läänemerd. Postimees. https://leht.postimees.ee/7178033/jonne-kotta-sander-loite-rannakarbikasvatus-puhastab-laanemerd

Kutsar, R. 3.07.2020: Eesti mereala planeering. Mõjude hindamise aruande eelnõu, avalikule väljapanekule. Töö nr 296718. Tallinn-Tartu: Hendrikson & Ko. https://www.rahandusministeerium.ee/sites/default/files/Ruumiline_planeerimine/2020-07-10_msp_mh_aruanne_portaali.pdf

Kuusik, M.; Pikner, T.; Printsmann, A.; Raet, J. 2018: Lääne-Viru Integrated Coastal Zone Management plan. https://sites.utu.fi/sustainbaltic

Käsmu Maritime Museum 2016: https://www.kasmu.ee/en/node/1711

Lankots, E.; Ojari, T. (eds.) 2020: Leisure Spaces. Holidays and Architecture in 20th Century Estonia. Tallinn: Eesti Arhitektuurimuuseum.

Loksa linna arengukava aastani 2023: https://www.riigiteataja.ee/akt/419032020004

Loodusega koos 2021: https://www.loodusegakoos.ee/where-to-go/national-parks/lahemaa-national-park

Lõhmus, M. 2021: Detsentraliseeritud valitsemis- ja juhtimiskorralduse mudelid kohaliku omavalitsuse üksustes II. Ekspertarvamus. https://omavalitsus.fin.ee/static/sites/5/2021/03/Detsentraliseeritud_korralduse_mudel_KOV.pdf

Muinsuskaitseamet 2020: National registry of cultural monuments. https://register.muinas.ee/public.php?menuID=militaryheritagegeneral

Nugin, R.; Palang, H. 2021: Borderscapes in landscape: identity meets ideology. Theory & Psychology 31 (5): 780–796. https://doi.org/10.1177/0959354320948131

Palang, H.; Alumäe, H.; Mander, Ü. 2000: Holistic aspects in landscape development: a scenario approach. Landscape and Urban Planning 50 (1): 85–94. https://doi.org/10.1016/S0169-2046(00)00081-5

Palang, H.; Külvik, M.; Printsmann, A.; Storie, J.T. 2019: Revisiting futures: integrating culture, care and time in landscapes. Landscape Ecology 34 (7): 1807–1823. https://doi.org/10.1007/s10980-019-00875-y

Peçanha Enqvist, J.; West, S.; Masterson, V.A.; Haider, L.J.; Svedin, U.; Tengö, M. 2018: Stewardship as a boundary object for sustainability research: linking care, knowledge and agency. Landscape and Urban Planning 179: 17–37. https://doi.org/10.1016/j.landurbplan.2018.07.005

Printsmann, A.; Pikner, T. 2019: The role of culture in the self-organisation of coastal fishers sustaining coastal landscapes: a case study in Estonia. Sustainability 11 (14: 3951). https://doi.org/10.3390/su11143951

Rahandusministeerium 2020: Eesti mereala planeering. Mereala planeeringu seletuskiri. Hendrikson & Ko. https://www.rahandusministeerium.ee/sites/default/files/Ruumiline_planeerimine/2020-02-13_pohilahendus_portaali.pdf

Sepp, K. (ed.) 2011: The Estonian Green Belt. Tartu: Estonian University of Life Sciences.

State Port Register: https://www.sadamaregister.ee

Statistics Estonia: https://www.stat.ee

Szejgiec-Kolenda, B.; Zaucha, J. 2018: Dealing with maritime economy at the local level. Trends along the coastal Poland. In: Notteboom, T.; Peeters, C.; H. Pina Calado, M.G.; Czermánski, E. (eds.) SHS Web of Conferences 58: 01028. https://doi.org/10.1051/shsconf/20185801028

Valk, H.; Kriiska, A.; Matsin, A.; Oras, J.; Ormisson-Lahe, A.; Pae, T.; Rahi-Tamm, A.; Remmel, M.-A. 2021: Päranditurism Eestis: potentsiaal ja arenguvõimalused. Tartu: Tartu Ülikooli ajaloo ja arheoloogia instituut. https://www.etag.ee/wp-content/uploads/2021/03/Paranditurism-Eestis.pdf

10. Appendices

Appendix 1. Questionnaire for the local inhabitants in the case study area

Future of the coastal areas

Hello!

We turn to You from Turu-uuringute AS to conduct a study on how to promote local life by the sea so that everything valuable is preserved, as well as to map coastal tourism and mobility. Your opinion is very important.

It takes about 10 minutes to answer. Your answers will remain anonymous (not associated with You) and will be used for research purposes in a generalised way.

You can start answering here:

Local inhabitants from coastal villages (more broadly Loksa and Kunda towns and Kuusalu, Haljala and Viru-Nigula municipalities) are included in the survey. We have received Your contact information from the Population Register (*issued with the permission from the Ministry of the Interior and used only for this study*).

The results of the study are analysed by researchers at Tallinn University in the European Union's international project "Land-Sea-Act". The study will result in policy recommendations that will help to plan the living environment of coastal villages in a more diverse way.

In case You have questions please contact:

Anu Printsmann anu.printsmann@tlu.ee
Tarmo Pikner
Hannes Palang

Centre for Landscape and Culture, School of Humanities, Tallinn University

I – Background

B0. Where is Your permanent residence? META
1. Loksa town Harju county
2. Kuusalu municipality Harju county
3. Kunda town Lääne-Viru county
4. Haljala municipality Lääne-Viru county
5. Viru-Nigula municipality Lääne-Viru county
6. Elsewhere (please specify)

IF B0 = 2 META
B02. In which settlement/village do You live?

Kuusalu municipality Harju county
1. Hara
2. Juminda
3. Kasispea
4. Pärispea
5. Suurpea
6. Tammispea
7. Tammistu
8. Tapurla
9. Turbuneeme
10. Vihasoo
11. Viinistu
12. Virve

IF B0 = 4 META
B03. In which settlement/village do You live?

Haljala municipality Lääne-Viru county
13. Altja
14. Eisma
15. Eru
16. Karepa
17. Koolimäe
18. Käsmu
19. Lahe
20. Lobi
21. Mustoja
22. Natturi
23. Pedassaare
24. Pihlaspea
25. Rutja
26. Toolse
27. Vainupea
28. Vergi
29. Võsu small town

IF B0 = 5 META
B04. In which settlement/village do You live?

Viru-Nigula municipality Lääne-Viru county
30. Aseri small town
31. Aseriaru
32. Kalvi
33. Kõrkküla
34. Letipea
35. Mahu
36. Ojaküla
37. Simunamäe

B1. What is Your gender?
1. Male
2. Female

B2. What is Your age in full years?

B3. What is Your ethnic origin?
1. Estonian
2. Other

II – Relation to the sea

Q1. How often do You go or stay by the sea? One answer
1. Almost every day of the year
2. A few times a month
3. Almost every day in summer
4. A few times a year
5. Other (please specify)
6. Don't know/want to respond

Q2. Is there maritime culture on the Estonian northern coast?
1. Yes
2. No
1. Don’t know/want to respond

Q3. What are, in Your opinion, the main components of maritime culture? Open answer

Q4. Do You contribute to the preservation/development of the coastal landscape?
1. Yes
2. No
3. Don’t know/want to respond

Q5A. Do users of summer-homes in Your area communicate closely with the other people living nearby?
1. Yes
2. No
3. Don’t know/want to respond

Q5. Do You have a summer-house?
1. Yes
2. No
3. Don’t know/want to respond

IF Q5 = 1
Q6. Where is this summer-house located?
1. Loksa town Harju county
2. Kuusalu municipality Harju county
3. Kunda town Lääne-Viru county
4. Haljala municipality Lääne-Viru county
5. Viru-Nigula municipality Lääne-Viru county
6. Elsewhere in Estonia close to the sea
7. Elsewhere in Estonian inland
8. Elsewhere (please specify)
9. Don’t know/want to respond

III – Blue Growth

Q7. Have You ever heard of Blue Growth or Blue Economy?
1. Yes
2. No
3. Don't know/want to respond

IF Q7 = 1
Q8. Name 3 keywords on how You understand Blue Growth. Open answer

Q9. How big are the contradictions between the areas of use at and close of the northern coast of Estonia?
SCALE: 1 – No contradictions, 2 – Some contradictions, 3 – Big contradictions, 0 – Don't know/want to respond
1. Tourism *versus* nature protection
2. Nature protection *versus* economic activity
3. Economic activity *versus* heritage
4. Living close to nature *versus* energy production
5. Energy production *versus* defence
6. Defence *versus* recreation
7. Recreation *versus* fish farming
8. Bathing *versus* water sport
9. Free access to the coast *versus* fenced private property
10. Private development of a small harbour *versus* public interests
11. Private vacation *versus* masses of tourists and holidaymakers
12. Expressway highways *versus* convenient bike paths and hiking trails

IV – Tourism and recreational economy

Q10. What should be the priority developments in the field of tourism infrastructure on the northern coast of Estonia? Up to 3 answers

1. Gastronomy
2. Small-craft harbour services (vessels, boats, sailboats etc. related to tourism)
3. Fishing opportunity
4. Retail
5. Culture
6. Nature observations
7. Accommodation
8. Hiking trails
9. Entertainment events
10. Non-motorised water sport
11. Motorised water sport
12. Parking
13. Beach infrastructure
14. Social infrastructure (e.g. medical care, childcare)
15. Spa hotels
16. Sport facilities
17. Tourist information
18. Other (please specify)
19. Don't know/want to respond

Q11. How likely do You consider the future trends on the northern coast of Estonia until 2040 in the context of tourism and recreation?
SCALE: 1 – Not likely at all, 2 – Unlikely, 3 – Rather likely, 4 – Very likely, 0 – Don't know/want to respond

1. Mass tourism is growing
2. Niche tourism (e.g. ecotourism, yoga camps) is growing
3. The number of domestic tourists is growing
4. The number of foreign tourists is growing
5. Airbnb summer rooms are more popular than spa hotels
6. Movement is reduced due to flight and travel shame and health restrictions
7. The importance of virtual reality in tourism is increasing
8. The number of local people in the coastal area is increasing due to the spread of telework
9. Locals have more job opportunities in small businesses and the recreational economy
10. Locals are starting to organise their own lives more
11. The importance of nature protection is increasing
12. The importance of heritage protection is increasing
13. The landscape remains the same

V – Future scenarios

The picture shows the current situation (contains fragments from several coastal villages in northern Estonia). The following sections describe in a couple of sentences 4 possible scenarios for tourism and recreation related to the northern coast of Estonia for **2040**.

A. Fast forward – excitingly.
Tourism and recreation are characterised by rapid growth, including a fast increase in the number of visitors, and more and more people are coming to the coastal area for holidays outside the summer season. In many coastal villages, the infrastructure of the recreational economy is being expanded, mobility at sea and the number of visitors to small islands are increasing. The area is reviving its shipbuilding tradition and sailing courses in schools. In addition to tourism and expanding fish farming, the mine, which has started operations, is increasing the environmental burden. Some recreational enterprises pay a tourism tax to the cooperation fund, which allows the local government to develop public recreational infrastructure.

Q14. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don’t know/want to respond

B. Place-based vacation.
In tourism, authenticity (originality) of places, history and food is increasingly valued. People come to experience locality, micro-diversity through slow progress. The main attractions are nature and coastal villages with their maritime culture. Workshops are gaining popularity, where heritage is introduced and created together with the locals. Local government has an important role in deciding on the use of coastal maritime space within 1 nautical mile. There is a growing desire to use coastal areas for aquaculture and wave energy production, which creates a number of contradictions with the recreational economy.

Q15. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

C. Virtual lenses.
In the experiences of tourists and people spending their holidays, real places are closely mixed with virtual images. During the holidays, confirmations will be sought for previously seen videos. In reality, travel is declining because transport seems quite expensive. The movement will be partially replaced by simulated spaces that allow for a tourist experience. Augmented reality makes it possible to combine the different layers of heritage in the region into stories and images. People come and look at specific things that can't be virtually imitated. The impact of the recreational economy on the region has been moderate. It is regulated by a data-traffic-based environmental charge that is added to services and products.

Q16. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

D. Patchwork of restrictions.
Minimising climate change and adapting to its consequences is being taken seriously. Travel is declining, tourism is being declared a waste of resources. In order to protect biodiversity, the protection regime of the national park is becoming stricter. There are attempts to preserve traditional landscapes, but there is a shortage of people who would bother to engage in animal husbandry and other landscape maintenance. As a result, the current traditional landscape of Lahemaa tends to disappear and be replaced by an even more natural-looking landscape in which the role of the population is declining. In the coastal area, tourism is declining, income opportunities are decreasing, and the population of coastal villages is diminishing.

Q17. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

Q18. Which of these scenarios You consider the most LIKELY?
1. A. Fast forward – excitingly
2. B. Place-based vacation
3. C. Virtual lenses
4. D. Patchwork of restrictions
5. Don't know/want to respond

Q18A. Please give a reason. Open answer

Q19. Which of these scenarios You consider the most PLEASANT?
1. A. Fast forward – excitingly
2. B. Place-based vacation
3. C. Virtual lenses
4. D. Patchwork of restrictions
5. Don't know/want to respond

VI – Mobility

Q20. To what extent should different modes of transport be developed in the context of tourism and recreation on the northern coast of Estonia?
SCALE: 1 – No development required, 2 – Keep current, 3 – Develop, 4 – Definitely need development, 0 – Don't know/want to respond

1. Public transport
2. Connectivity with major Estonian cities
3. Local transport
4. Highways
5. Shared vehicles
6. Electric vehicles
7. Electric bicycles and scooters
8. Air services
9. Light traffic roads
10. Watercraft

Q21. Do You have the possibility of going to the sea by boat or some other vessel?

1. Yes
2. No
3. Don't know/want to respond

IF Q21 = 1
Q22. How often do You go to the sea?

1. Almost every day of the year
2. A few times a month
3. Almost every day in summer
4. A few times a year
5. Other (please specify)
6. Don't know/want to respond

Q23. Are there any problems with access to the coast when traveling by land or sea (e.g. is the shoreline or harbour blocked by private land or a private road sign, barriers etc.)

1. Yes
2. No
3. Don't know/want to respond

VII – Cooperation

Q25. Which parties should be involved in the promotion of coastal tourism in particular? Up to 3 answers

1. National government
2. Local government
3. Municipal districts (i.e. village associations)
4. Villages
5. Entrepreneurs
6. Community
7. NGOs
8. Local people
9. Other (please specify)
10. Don't know/want to respond

VIII – To conclude

Finally, a few more questions about You.

B4. Do You work or are otherwise involved in the following fields? Several answers
1. Maritime affairs, fisheries etc.
2. Tourism and recreational economy
3. Transport and mobility
4. Do not work in any of them
5. Don't know/want to respond

B5. What is Your highest level of education completed?
1. Primary or lower secondary education
2. Vocational education, secondary or secondary with vocational education
3. Higher education, including a degree

B6. What is the range of Your household's average monthly net income per household member? To calculate this, please add up the income of all members of the household (including salaries, pensions, allowances, scholarships and other income) and divide the amount by the number of members of the household.
1. Up to 650 euros
2. 651–800 euros
3. 800–1300 euros
4. More than 1300 euros
5. There is no income
6. Don't know/want to respond

B7. Write if You want to add anything to the topic of this questionnaire. Open answer

B9. If You are ready to discuss the questionnaire in the future, please write Your contact (e-mail, phone). Open answer

Thank You!

Appendix 2. Questionnaire for the enterprises/organisations in the case study four municipalities

Entrepreneurship in coastal areas

Hello!

We turn to Your enterprise/organisation from Turu-uuringute AS to conduct a study on how to promote local life by the sea so that everything valuable is preserved, as well as to map coastal tourism and mobility. Your opinion is very important.

It takes about 10 minutes to answer. Your answers will remain anonymous (not associated with You) and will be used for research purposes in a generalised way.

You can start answering here:

Enterprises/organisations from coastal villages (more broadly Loksa and Kunda towns and Kuusalu, Haljala and Viru-Nigula municipalities) are included in the survey. We have received Your contact information from the Commercial Register.

The results of the study are analysed by researchers at Tallinn University in the European Union's international project "Land-Sea-Act". The study will result in policy recommendations that will help to plan the living environment of coastal villages in a more diverse way.

In case You have questions please contact:

Anu Printsmann anu.printsmann@tlu.ee
Tarmo Pikner
Hannes Palang

Centre for Landscape and Culture, School of Humanities, Tallinn University

I – Background

B0. Location of the enterprise: META
1. Loksa town Harju county
2. Kuusalu municipality Harju county
3. Kunda town Lääne-Viru county
4. Haljala municipality Lääne-Viru county
5. Viru-Nigula municipality Lääne-Viru county
6. Other

B1. Type of the enterprise: META
1. Sole proprietor (*FIE*)
2. Commercial undertaking (*AS*, *OÜ*, *TÜ*)
3. Non-profit enterprise/organisation (*SA*, *MTÜ*, *KOV*)

B2. Field of activity: META
1. Fishing; Aquaculture A
2. Transportation; Storage H
3. Accommodation; Food service activities I
4. Real estate activities L
5. Administration; Support service activities N
6. Arts, entertainment and recreation R
7. Other service activities S

B3. At what regional level does Your enterprise/organisation operate? Several answers
1. International, global
2. Europe and the Baltic Sea Region
3. Estonia
4. Local level (county, village etc.)
5. Don't know/want to respond

B4. How many years has Your enterprise/organisation been in business?
1. 1–2 years
2. 3–5 years
3. 6–10 years
4. 10–20 years
5. More than 20 years
6. Don't know/want to respond

II – Blue Growth

Q7. Have You ever heard of Blue Growth or Blue Economy?
1. Yes
2. No
3. Don't know/want to respond

IF Q7 = 1
Q8. Name 3 keywords on how You understand Blue Growth. Open answer

Q9. How big are the contradictions between the areas of use at and close of the northern coast of Estonia?
SCALE: 1 – No contradictions, 2 – Some contradictions, 3 – Big contradictions, 0 – Don't know/want to respond
1. Tourism *versus* nature protection
2. Nature protection *versus* economic activity
3. Economic activity *versus* heritage
4. Living close to nature *versus* energy production
5. Energy production *versus* defence
6. Defence *versus* recreation
7. Recreation *versus* fish farming
8. Bathing *versus* water sport
9. Free access to the coast *versus* fenced private property
10. Private development of a small harbour *versus* public interests
11. Private vacation *versus* masses of tourists and holidaymakers
12. Expressway highways *versus* convenient bike paths and hiking trails

III – Tourism and recreational economy

Q10. What should be the priority developments in the field of tourism infrastructure on the northern coast of Estonia? Up to 3 answers

1. Gastronomy
2. Small-craft harbour services (vessels, boats, sailboats etc. related to tourism)
3. Fishing opportunity
4. Retail
5. Culture
6. Nature observations
7. Accommodation
8. Hiking trails
9. Entertainment events
10. Non-motorised water sport
11. Motorised water sport
12. Parking
13. Beach infrastructure
14. Social infrastructure (e.g. medical care, childcare)
15. Spa hotels
16. Sport facilities
17. Tourist information
18. Other (please specify)
19. Don't know/want to respond

Q11. How likely do You consider the future trends on the northern coast of Estonia until 2040 in the context of tourism and recreation?
SCALE: 1 – Not likely at all, 2 – Unlikely, 3 – Rather likely, 4 – Very likely, 0 – Don't know/want to respond

1. Mass tourism is growing
2. Niche tourism (e.g. ecotourism, yoga camps) is growing
3. The number of domestic tourists is growing
4. The number of foreign tourists is growing
5. Airbnb summer rooms are more popular than spa hotels
6. Movement is reduced due to flight and travel shame and health restrictions
7. The importance of virtual reality in tourism is increasing
8. The number of local people in the coastal area is increasing due to the spread of telework
9. Locals have more job opportunities in small businesses and the recreational economy
10. Locals are starting to organise their own lives more
11. The importance of nature protection is increasing
12. The importance of heritage protection is increasing
13. The landscape remains the same

Q12. What HINDERS the development of coastal tourism? Open answer

Q13. What SUPPORTS the development of coastal tourism? Open answer

IV – Future scenarios

The picture shows the current situation (contains fragments from several coastal villages in northern Estonia). The following sections describe in a couple of sentences 4 possible scenarios for tourism and recreation related to the northern coast of Estonia for **2040**.

A. Fast forward – excitingly.
Tourism and recreation are characterised by rapid growth, including a fast increase in the number of visitors, and more and more people are coming to the coastal area for holidays outside the summer season. In many coastal villages, the infrastructure of the recreational economy is being expanded, mobility at sea and the number of visitors to small islands are increasing. The area is reviving its shipbuilding tradition and sailing courses in schools. In addition to tourism and expanding fish farming, the mine, which has started operations, is increasing the environmental burden. Some recreational enterprises pay a tourism tax to the cooperation fund, which allows the local government to develop public recreational infrastructure.

Q14. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don’t know/want to respond

B. Place-based vacation.
In tourism, authenticity (originality) of places, history and food is increasingly valued. People come to experience locality, micro-diversity through slow progress. The main attractions are nature and coastal villages with their maritime culture. Workshops are gaining popularity, where heritage is introduced and created together with the locals. Local government has an important role in deciding on the use of coastal maritime space within 1 nautical mile. There is a growing desire to use coastal areas for aquaculture and wave energy production, which creates a number of contradictions with the recreational economy.

Q15. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

C. Virtual lenses.
In the experiences of tourists and people spending their holidays, real places are closely mixed with virtual images. During the holidays, confirmations will be sought for previously seen videos. In reality, travel is declining because transport seems quite expensive. The movement will be partially replaced by simulated spaces that allow for a tourist experience. Augmented reality makes it possible to combine the different layers of heritage in the region into stories and images. People come and look at specific things that can't be virtually imitated. The impact of the recreational economy on the region has been moderate. It is regulated by a data-traffic-based environmental charge that is added to services and products.

Q16. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

D. Patchwork of restrictions.
Minimising climate change and adapting to its consequences is being taken seriously. Travel is declining, tourism is being declared a waste of resources. In order to protect biodiversity, the protection regime of the national park is becoming stricter. There are attempts to preserve traditional landscapes, but there is a shortage of people who would bother to engage in animal husbandry and other landscape maintenance. As a result, the current traditional landscape of Lahemaa tends to disappear and be replaced by an even more natural-looking landscape in which the role of the population is declining. In the coastal area, tourism is declining, income opportunities are decreasing, and the population of coastal villages is diminishing.

Q17. How likely do You rate this scenario?
1. Not likely at all
2. Unlikely
3. Rather likely
4. Very likely
5. Don't know/want to respond

Q18. Which of these scenarios You consider the most LIKELY?
1. A. Fast forward – excitingly
2. B. Place-based vacation
3. C. Virtual lenses
4. D. Patchwork of restrictions
5. Don't know/want to respond

Q18A. Please give a reason. Open answer

Q19. Which of these scenarios You consider the most PLEASANT?
1. A. Fast forward – excitingly
2. B. Place-based vacation
3. C. Virtual lenses
4. D. Patchwork of restrictions
5. Don't know/want to respond

V – Mobility

Q20. To what extent should different modes of transport be developed in the context of tourism and recreation on the northern coast of Estonia?
SCALE: 1 – No development required, 2 – Keep current, 3 – Develop, 4 – Definitely need development, 0 – Don't know/want to respond
1. Public transport
2. Connectivity with major Estonian cities
3. Local transport
4. Highways
5. Shared vehicles
6. Electric vehicles
7. Electric bicycles and scooters
8. Air services
9. Light traffic roads
10. Watercraft

Q23. Are there any problems with access to the coast when traveling by land or sea (e.g. is the shoreline or harbour blocked by private land or a private road sign, barriers etc.)
1. Yes
2. No
3. Don't know/want to respond

VI – Cooperation

Q24. Based on Your experience, how do You assess cooperation in the planning and development of Estonian coastal areas?
SCALE: 1 – Very poor, 2 – Poor, 3 – Good, 4 – Excellent, 0 – Don't know/want to respond
1. Cooperation of entrepreneurs with local governments
2. Cooperation of local residents with local government
3. Cooperation of communities with local government and the state
4. Cooperation of municipal district assemblies with local governments
5. Intra-county cooperation
6. Cooperation within Estonia
7. International cooperation

Q25. Which parties should be involved in the promotion of coastal tourism in particular? Up to 3 answers
1. National government
2. Local government
3. Municipal districts (i.e. village associations)
4. Villages
5. Entrepreneurs
6. Community
7. NGOs
8. Local people
9. Other (please specify)
10. Don’t know/want to respond

Q26. Does Your enterprise/organisation need additional land or sea space to develop its services and operations?
1. Yes
2. No
3. Don’t know/want to respond

Q4. Does Your enterprise/organisation contribute to the preservation/development of the coastal landscape?
1. Yes
2. No
3. Don’t know/want to respond

IF Q4 = 1
Q4A. How do You contribute to the preservation/development of the coastal landscape? Open answer

VII – COVID-19

Q27. How did COVID-19 affect Your enterprise/organisation? Several answers

1. Enabling teleworking
2. Increasing flexible leisure time
3. Video conferencing
4. Rethinking target groups and services
5. Reduction of workload
6. Increasing the amount of work
7. Changes in seasonal work (i.e. intensity by season)
8. Cost optimisation
9. Decrease in employee income
10. Dismissal of employees
11. Cancellation of foreign trips
12. Disruption of supply chains for outsourced goods and services
13. Difficulties in marketing the goods
14. Temporary Closure
15. Termination of operations
16. NOT AFFECTED AT ALL
17. Other means (please specify)

VIII – To conclude

B7. Write if You want to add anything to the topic of this questionnaire. Open answer

B9. If You are ready to discuss the questionnaire in the future, please write Your contact (e-mail, phone). Open answer

B8. Do You agree that the answers You provide will be associated with the name of Your enterprise/organisation?

1. Yes
2. No

Thank You!

Appendix 3. Hand-picked selection of the Estonian Classification of Economic Activities (*Eesti Majanduse Tegevusalade Klassifikaator* – EMTAK) five-tier level codes for Blue Economy (coastal tourism and mobility) enterprises in the case study four municipalities in 2019

(source: Statistics Estonia 2020, Centre of Registers and Information Systems 2020)

ASKED FOR Code level				Explanation	RECEIVED	
1	2	3	5		Code	No. of firms
A – AGRICULTURE, FORESTRY AND FISHING						
	23			Gathering of wild growing non-wood products		0
3				Fishing and aquaculture		
				Marine fishing	3111	43
				Freshwater fishing	3121	4
				Marine aquaculture	3211	1
				Freshwater aquaculture	3221	1
H – TRANSPORTATION AND STORAGE						
				Freight rail transport	49201	1
				Taxi operation	49321	7
				Other passenger land transport	49399	10
				Freight transport by road	49411	70
				Removal services	49421	1
				Sea and coastal passenger water transport	50101	2
				Freight air transport	51211	1
				Storage services of liquids and gases	52102	1
				Other support activities for transportation	52219	1
				Other support activities for air transportation	52239	1
				Cargo handling	52241	1
				Other transportation support activities	5229	2
				Forwarding agencies services	52291	4
				Other supporting and auxiliary transport services	52299	5
				Other postal and express service	53201	3
I – ACCOMMODATION AND FOOD SERVICE ACTIVITIES						
				Hotels	55101	2
				Guest-houses	55103	7
				Holiday and other short-stay accommodation	552	3
				Hostels	55201	3
				Holiday home (chalets)	55202	10
				Holiday village and camp	55203	6
				Visitor flats	55204	1
				Bed-and-breakfast	55205	7
				Camping grounds, recreational vehicle parks and trailer parks	55301	1
				Restaurants, cafeterias and other catering places	56101	27
				Event catering activities	56211	3
				Other food service activities	56291	4
				Beverage serving activities	56301	4
L – REAL ESTATE ACTIVITIES, except for apartment associations						
				Buying and selling of own real estate	68101	5

	Rental and operating of own or leased real estate	68201	43
	Real estate agencies	68311	7
	Management of real estate on a fee or contract basis	6832	6
	Management of buildings and rental houses (apartment associations, housing associations, building associations etc)	68321	20
	Management of gardening and cottage associations	68322	17
	Other real estate management or related activities	68329	3
N – ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES			
	Rental and leasing of cars and light motor vehicles	77111	4
	Rental and leasing of trucks	77121	1
	Rental and leasing of recreational and sports goods	77211	1
	Rental and leasing of construction and civil engineering machinery and equipment	77321	4
	Rental and leasing of office machinery and equipment (including computers)	77331	1
	Renting and operational leasing of other machinery, equipment and tangible assets not classified elsewhere	77399	2
	Leasing of intellectual property and similar products, except copyrighted works	77401	1
	Activities of employment placement agencies	78101	1
	Temporary employment agency activities	78201	4
	Travel agency activities	79111	7
	Tour operator activities	79121	1
	Other travel-related reservation services, including the activities of tour guides, ticket agencies and tourist information points	79901	6
	General cleaning of buildings	81211	7
	Other cleaning activities of buildings and industrial cleaning	81221	2
	Other cleaning activities	81291	3
	Landscape service activities	81301	8
	Office management, combined secretarial services	82111	2
	Organisation of conventions and trade shows	82301	1
	Packaging activities	82921	1
	Other business support service activities n.e.c.	82991	16
O – PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY			
84132	Administration of transport and communications		0
84139	Other economy supporting activities		1
R – ARTS, ENTERTAINMENT AND RECREATION			
	Performing arts	9001	2
	Production and presentation of live theatrical and dance performances	90011	3
	Production and presentation of live concerts, musical creation and other similar activities	90012	15
	Support activities to performing arts	90021	2
	Artistic creation	90031	26
	Operation of arts facilities	90041	1
	Activities of libraries	91011	4
	Museums activities	91021	9
	Operation of historical sites and buildings and similar visitor attractions	91031	5
	Operation of sports facilities	93111	3

		Activities of sports clubs	9312	3
		Activities of sports clubs	93121	33
		Fitness facilities	93131	2
		Other sports activities	9319	2
		Activities of sports leagues, organisations and associations	93191	3
		Activities related to sport and recreational fishing and hunting	93192	9
		Other sports activities not classified elsewhere	93199	19
		Other amusement and recreation activities	9329	6
		Culture centres and community centres	93291	4
		Other amusement and recreation activities not classified elsewhere	93299	15
S – OTHER SERVICE ACTIVITIES				
	941	Activities of business, employers and professional membership organisations		
		Activities of other business and employers organisations	94119	3
		Activities of artistic associations	94121	1
		Activities of other professional membership organisations	94129	4
	94991	Protection and custody of civil rights; special group protection activities		4
	94992	Associations and foundations for the purpose of regional/local life development and support		67
	94995	Associations and social clubs related to recreational activities, entertainment, cultural activities or hobbies		33
	94996	Environment and nature protection associations		6
96		Other personal service activities		
		Hairdressing and other beauty treatment	96021	46
		Physical well-being activities	9604	1
		Activities of saunas, sunbeds and massage salons and other services related to physical well-being	96041	6
		Other personal service activities n.e.c.	9609	8
		Pet care services	96091	2
		Other service activities	96099	11
T – ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS AND SERVICES PRODUCING ACTIVITIES FOR HOUSEHOLDS FOR OWN USE				
97		Activities of households as employers of domestic personnel		0
TOTAL				**770**

The project Land-Sea-Act (#R098 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

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LAND SEA ACT

Interreg Baltic Sea Region

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PAN

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