

Ministry of Environmental Protection and Regional Development
Republic of Latvia

Integrating ecosystem services in the MSP (Latvia)

03.11.2022.

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Maritime spatial plan – the strategic section

Long-term vision and strategic priorities

Balanced and integrated use of marine space, which promotes the continuation of marine-related sectors, welfare of coastal inhabitants, as well as viable marine ecosystems

Strategic objectives

Offshore renewabe energy production

Developed maritime sector and safe shipping

National defence

SO1: Rational and balanced use of the marine space, preventing inter-sectoral conflicts and preserving free space for future needs and opportunities

Healthy marine environment and stable ecosystem

SO2: The marine ecosystem and its ability to regenerate is preserved, ensuring the protection of biological diversity and averting excessive pressure from economic activities

Sustainable fisheries

Sustainable tourism and recreation

SO3: Integrated use of marine and terrestrial areas by promoting development of maritime related business and the development of the required infrastructure

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Ecosystem services in the MSP

The concept - first attempt in learning to assess ecosystem services in Latvian marine waters.

Based mainly on a theoretical (expert knowledge) assessment of the ecosystem potential.

Three main categories:

Provisioning services

Include raw materials provided by the ecosystem for human food and livestock feed, various raw materials, as well as energy resources

Environmental regulating services

Cover the benefits of the self-regulation of the ecosystem to society, such as water purification, flow management, and the maintenance of various natural processes and conditions, including the role of climate stabilisation

Cultural services

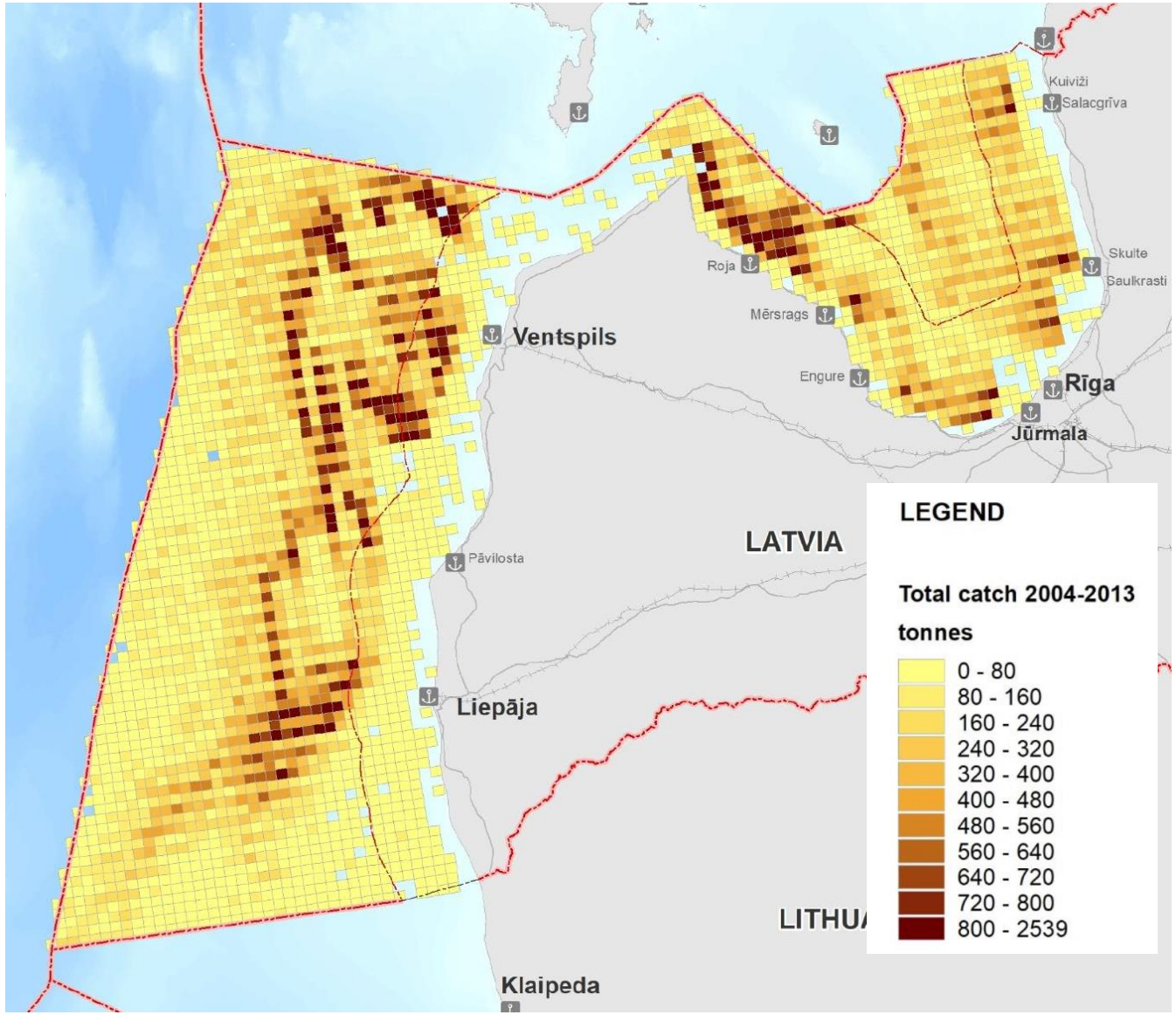
Includes the intangible benefits that people derive from ecosystems by relaxing in nature, watching birds or enjoying the landscape, exploring natural values or cultural and historical heritage

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Provisioning services in the MSP (1)

The service - fish for food consumption

- Data on total catches of commercially significant fish species (sprat, herring, cod and flounder) over a 10-year period (2004-2013) has been used



Supply / provisioning service - fish for food consumption — total catch on the high seas (excluding coastal waters)

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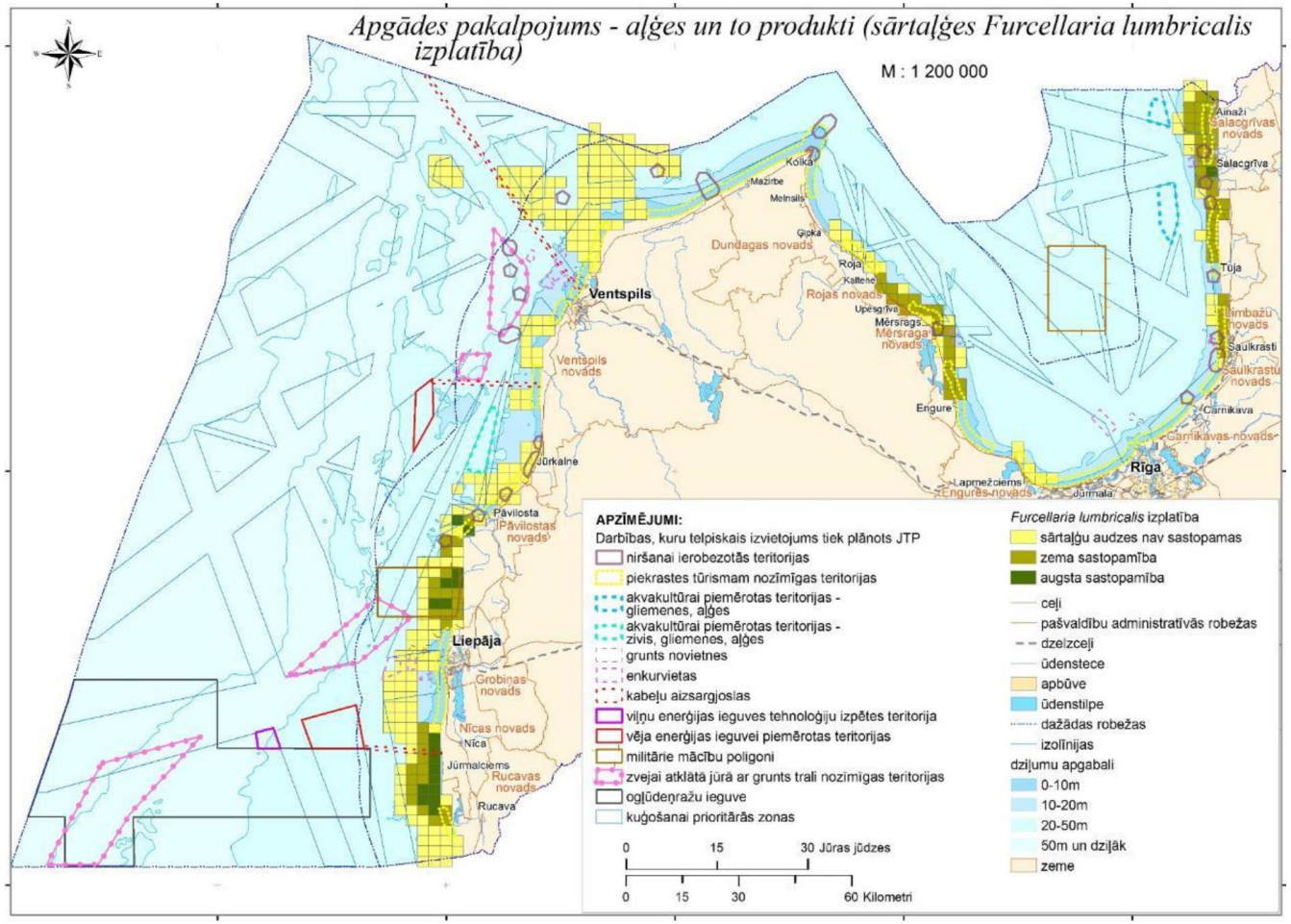
Provisioning services in the MSP (2)

The service – algae and their products for human consumption or as pharmaceutical and microbiological materials.

Available resource - the areas of the groves of the red algae were assessed:

- using the theoretically possible resource area of coverage, taking into account the seabed surface suitable for its growth,
- follow-up survey of underwater biotopes showing the areas where the red algae can currently be found.

Another service that could be used - algae in small quantities as a fertiliser in agriculture, but there are no reliable observations or records available.



Provisioning service – algae and their outputs – potential supply of red algae *Furcellaria lumbricalis*

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Environmental regulating services

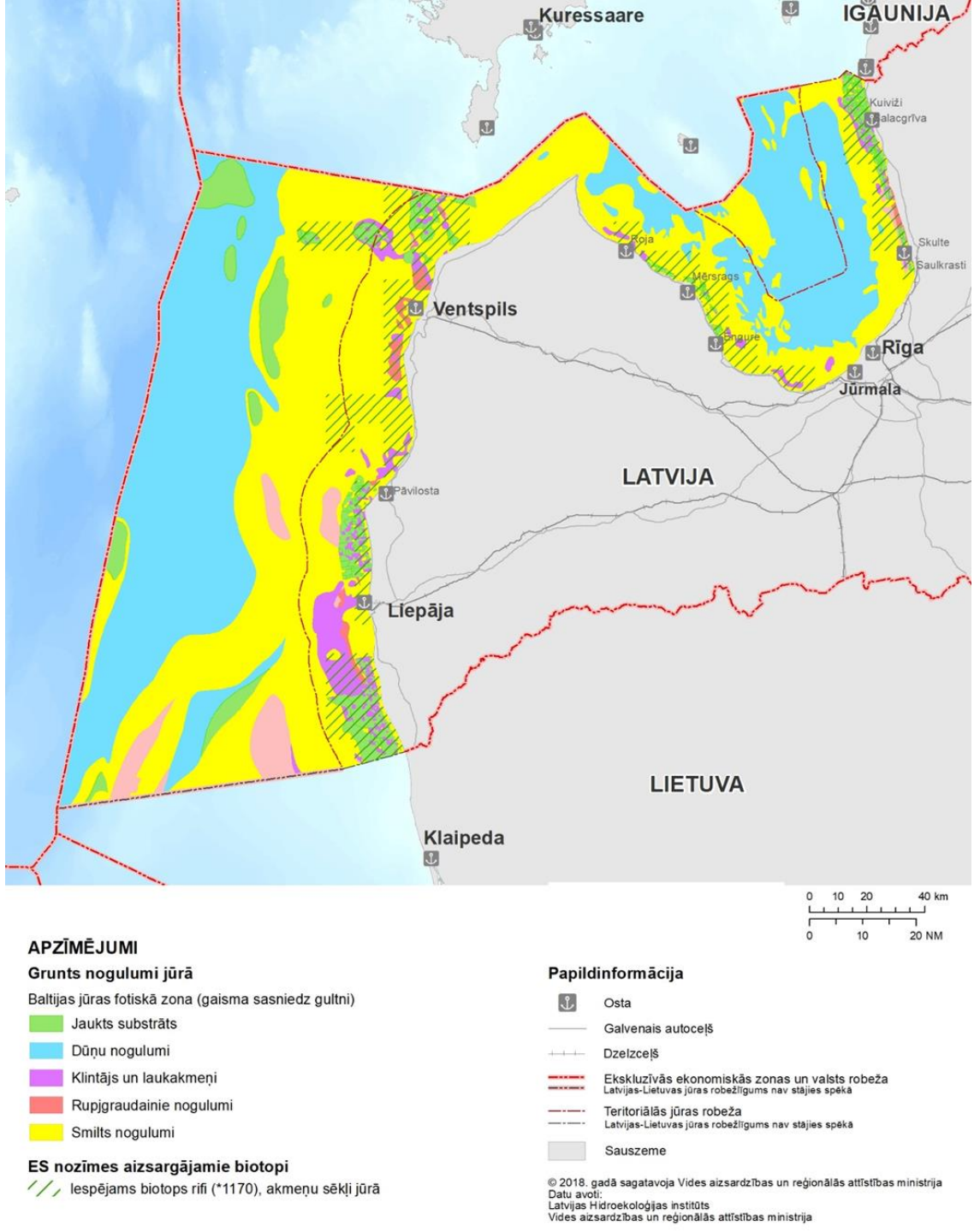
Benthic biotopes are used to identify environmental regulating services.

Ecosystem services linked to each biotope type are assessed to understand does the particular biotope type provide the particular service (expert knowledge).

Accordingly spatial representation of the ecosystem services distribution has been made.

Services identified - water filtration using mussels, erosion control, maintenance of spawning sites and habitats, etc.

The impact assessment of planned sea use solutions on ecosystem services is ensured by the spatial layering.



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Cultural services

The asessment of marine tourism and recreation along the Baltic Sea coast.

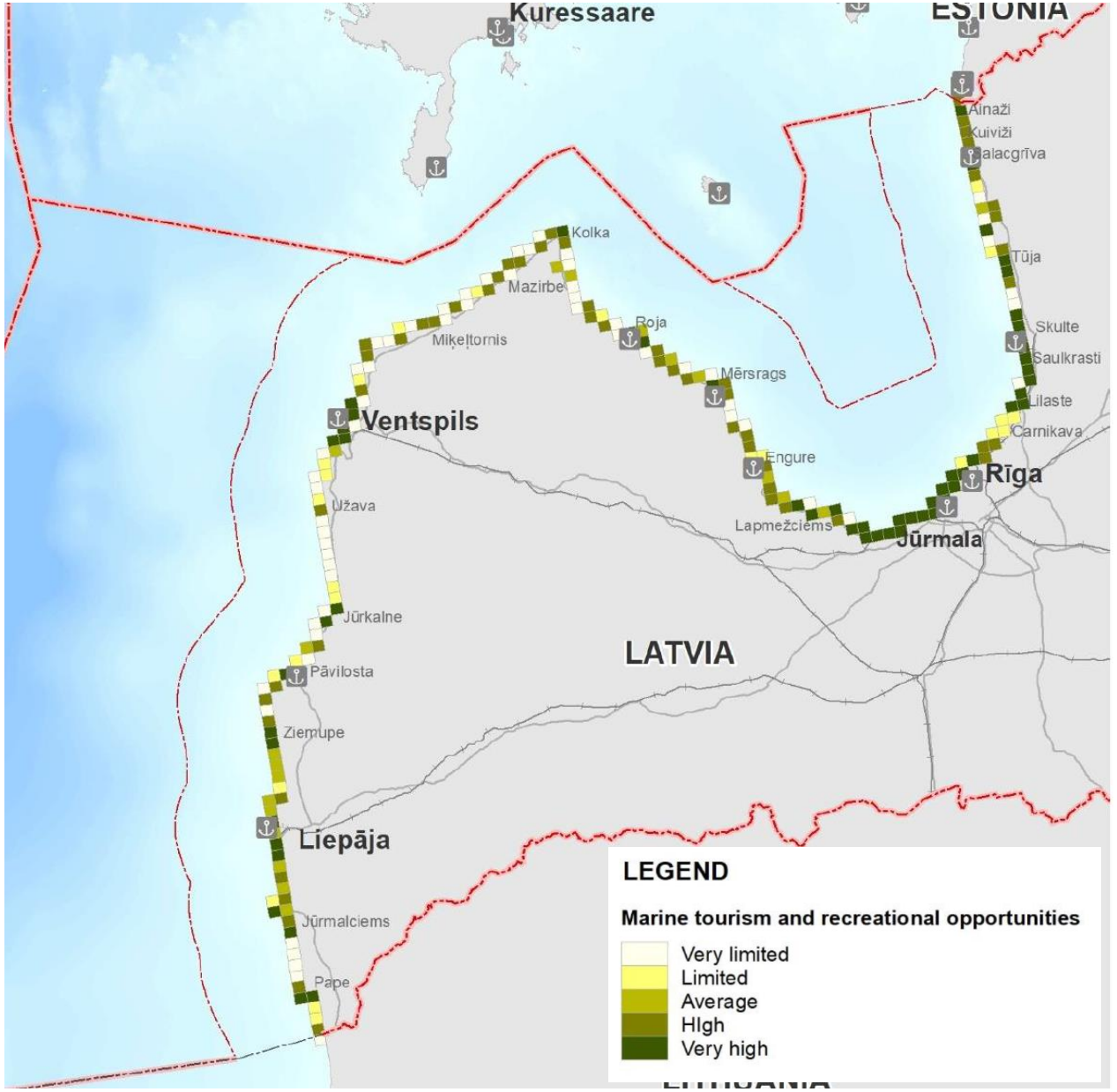
Assessment is based on a combination of several criteria determined mainly by:

- the number of users of existing ecosystem services;
- the extent to which the site is publicly available and suitable for the corresponding activities.

Takes into account situations where, compared to other coastal areas, some areas are best suited for certain activities.

Other significant values - existence of parking lots or public routes near the sea.

Highly and very highly rated areas can be considered as priority areas for the development of marine tourism.



Cultural services – physical experience and provision of interaction – Offshore maritime tourism and recreational facilities

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In the context of maritime spatial planning and ecosystem service approaches, the relationship between ecosystem processes, functions, services, societal benefits and their value must be clearly visible, which is particularly important in order to facilitate the analysis of benefits and losses in human activities and environmental management strategies.

As this is the first attempt in learning to apply this method to the marine waters of Latvia, work on the ecosystem services approach in the MSP is continued in the framework of various international projects.

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Land-Sea-Act

"Land-sea interactions advancing Blue Growth in Baltic Sea coastal area"



LAND SEA ACT

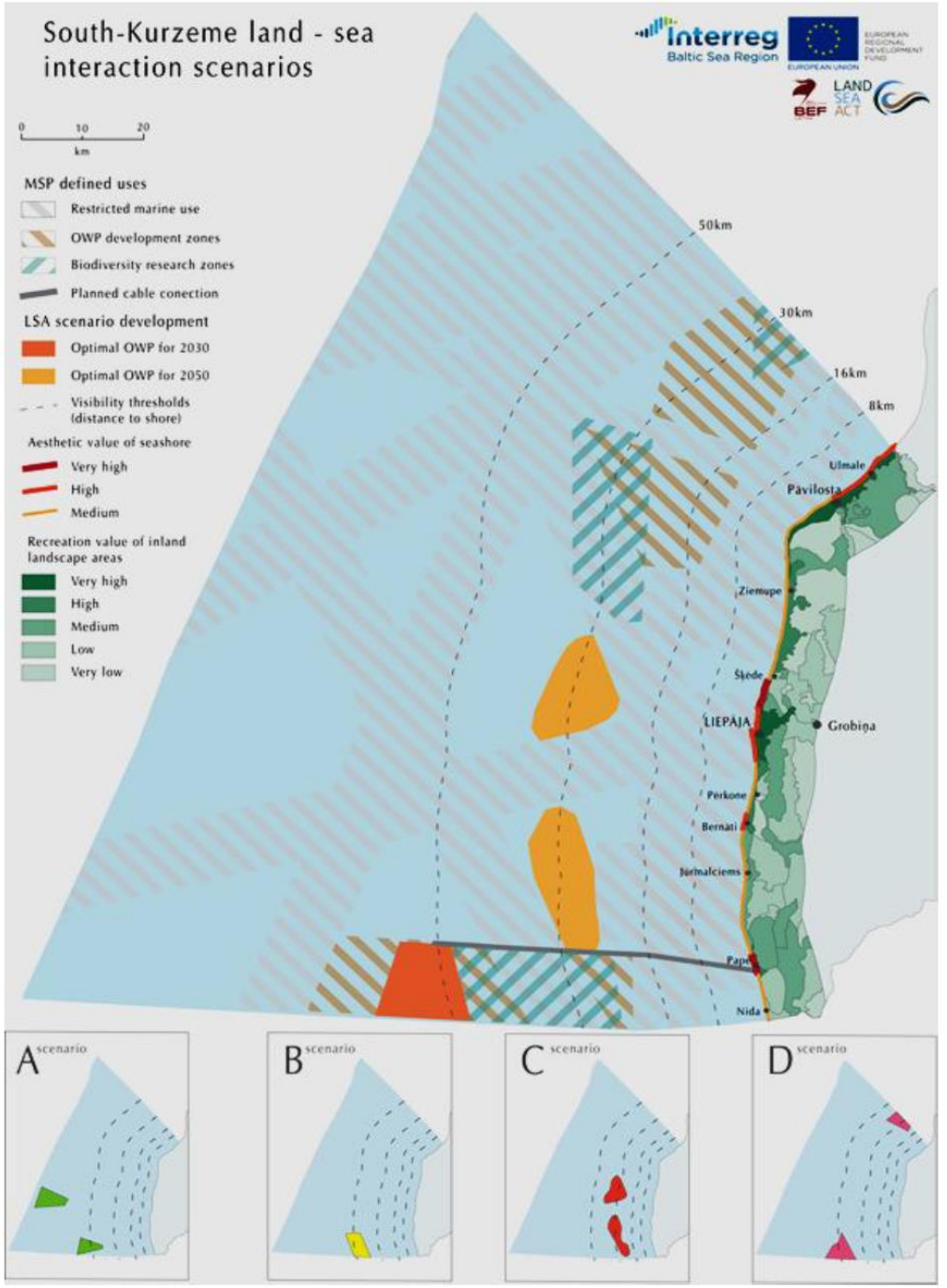
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Land-Sea-Act

"Land-sea interactions advancing Blue Growth in Baltic Sea coastal area"

Useful material for Latvian MSP - results of Land-Sea-Act project which delivers offshore wind farm placement scenarios in context of:

- ✓ ecosystem structure;
- ✓ ecosystem services;
- ✓ human well-being perspectives.



LAND SEA ACT

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MAREA

"From marine ecosystem accounting to integrated governance for sustainable planning of marine and coastal areas"

Mapping ecosystem services is essential to allocate the use of different parts of the sea space and analyse conflicts between different human uses and the marine environment.

The results of MAREA will be useful for deeper integration of the ecosystem service approach in MSP.

MAREA

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Actualities

Interim assessment - to evaluate implementation of the Latvian MSP

- A marine and coastal planning working group is being formed consisting of stakeholders to reflect on the MSP implementation process and results
- Ensuring stakeholder involvement in decision making process
- Updates on the current situation
- New data evaluation and implementation
- Topics still to be thought of
  (offshore energy, marine aquaculture,
  marine sand and gravel extraction)

Interim assessment planned to be completed
by the end of 2023

(According to the Cabinet of Ministers Order No.232 adopted on 21st of May)



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Thank you for attention!

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