Maritime and Coastal Smart Specialization Strategy for Riga Planning Region

PROJECT "SMART BLUE REGIONS: SMART SPECIALIZATION, MARITIME AND COASTAL RESOURCES FOR BALTIC SEA REGION ECONOMIC DEVELOPMENT"

October, 2018

Blue growth

Blue Growth – economic development of the area using marine and coastal natural resources, infrastructure, and other advantages that come from its location on the coast

European Commission (DG Mare) 2012

Maritime economy – all economic activity dependent on the sea

Blue Growth - opportunities for marine and maritime sustainable growth, Brussels, 13.9.2012. COM(2012) 494 final

Why ‘blue’ growth

The water and land border has traditionally been a driving force for the economy
In the future, the role of the sea is reinforced by new factors

Technical and technological development

More options to work in open sea, away from land, in deeper waters

New food and energy options

Fish, marine animals, including proteins, fats and carbohydrates from cultivated marine organisms for food, feed

Renewable (wave, wind) energy from the sea
Bio-fuels from seaweed to food-producing areas currently cultivated in biofuel production

The need to reduce greenhouse effect gas emissions

Improved energy efficiency of ships, which would achieve a total reduction of ~ 3%;

Priority to maritime transport, its emissions per tonne-kilometer are lower compared to land transport

Riga Planning Region potential

Long seashore - 187 km

White sand beaches, **wooded dunes** (rare natural habitat in Europe. Wooded dunes of the Atlantic, Continental and Boreal region 2180)

Riga Gulf, together with rivers **-** lots of **waterfront**s

White dune beach in Saulkrasti, Latvia Travel, 2017

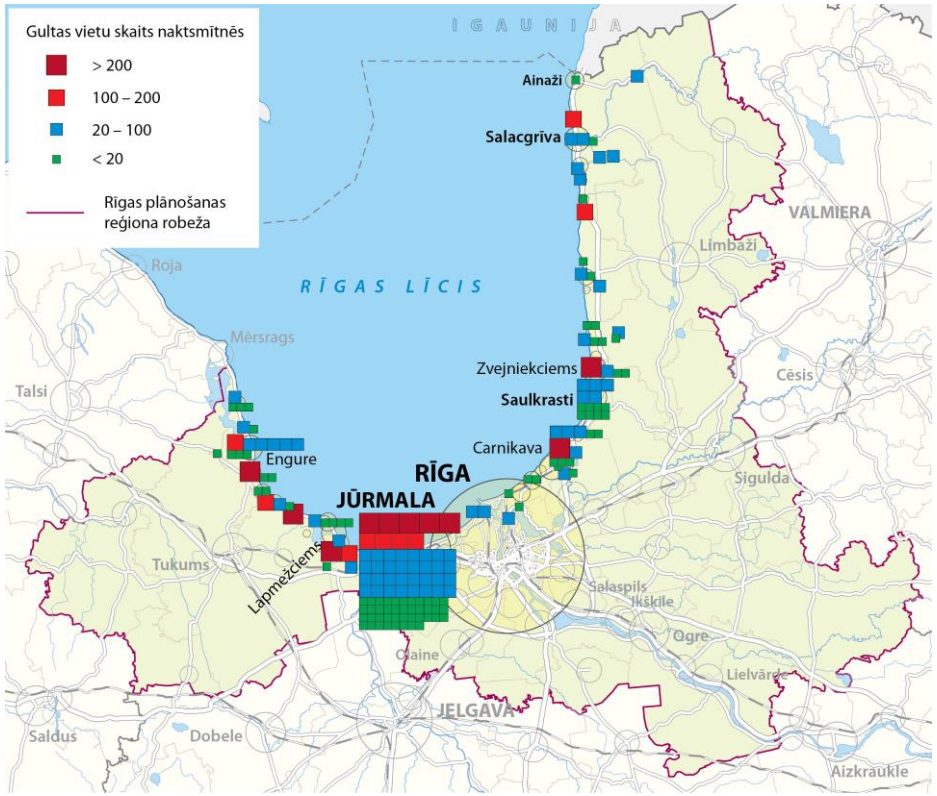
Riga Planning Region potential

0,7 million or 38% of **inhabitants** of Latvia live in coastal municipalities of RPR

Jurmala resort, coastal area of Riga suburbs, coastal towns

Potential for health tourism – nature resources, hotels, sanatoriums, resort traditions, beaches and Jurmala yacht's port with Blue flag

Sustainable management models in **North Vidzeme biosphere reserve**



Riga Planning Region potential

Good accessibility

- Good reach of the coast of Pieriga:
- electric railway,
- Via Baltica, main state roads,
- regular public transport
- Regular ferry traffic
- Bike road Riga-Jurmala
- Rail Baltica railway is being built

Ship routes (The HELCOM AIS)

Advantageous geographical position

Close to **Scandinavian market**

- the metropolis of Northern Europe, the international cultural, scientific, business center, transport hub
- Riga and surrounding – **central beach of the Baltics**

Riga Planning Region potential

Freeport of Riga and 4 small ports

Ports' enterprises

Engineering networks (drinking water, sewage systems, electricity) close to the beach, especially in cities and villages

Coastal heritage - traditional coastal fishing and spas

Regulated coastal use – zones for industrial construction (ports), public and residential zones are defined particularly in villages and towns

Experience in starting up the use of RES

negative factors

Seasonality affects the hospitality industry

Degraded former military territories, garden cooperatives

A few SPA, accommodation at reasonable price, cafes and leisure services

Poor tourism offer around small ports

Insufficient public space, lack of access to the beach area

High property prices on the coast impeding maintanance of properties and business development

Coastal roads in poor condition

Economic activity restrictions - more than half the coastline of 100 km is in NATURA 2000

Less suitable natural marine conditions for growing Mariculture

Living by the sea,

- **too little knowledge of the sea**
- **too little income from the sea**

Marine and coastal planning

EU

Europe 2020 Maritime Policy (Dimension)

Smart Specialization Strategy

Integrated Maritime Policy

Convention for the Control and Management of Ships' Ballast Water and Sediments, etc.

BSR Strategy

European Maritime Spatial Planning Initiative (Platform, Financing, Projects)

EU funding 2014-2020 (EAFRD, EMFF, Maritime and Maritime Research and Innovation Programs, Horizon 2020, etc.)

LV

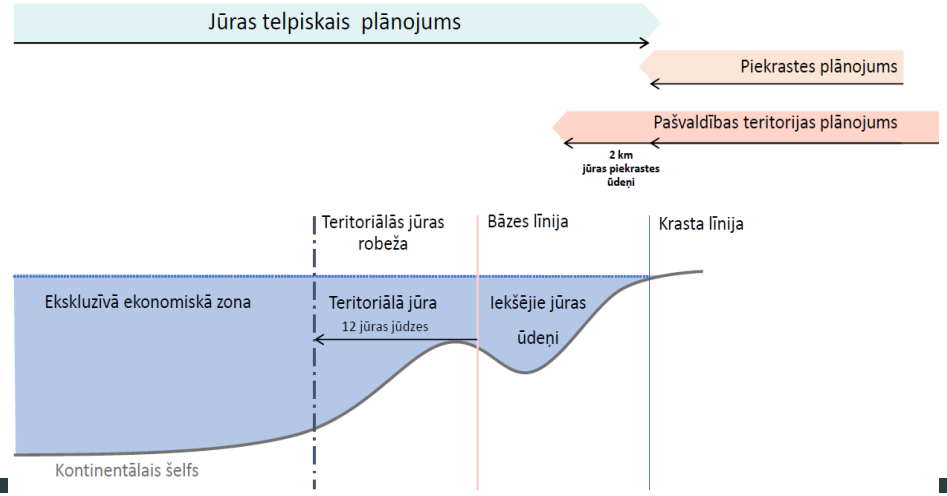
LIAS 2030 - national interest space - the Baltic Sea coast

NAP 2020

Coastal plan

Smart Specialization Strategy

Maritime plan



Maritime and Coastal Smart Specialization Strategy for Riga Planning

Elaborated in cooperation with
RPR coastal municipalities, entrepreneurs, ports

Maritime and Coastal Smart Specialization Strategy for Riga Planning Region

A **project framework** for the planning period **after 2020**

Includes seven coastal municipalities (incl. resort Jurmala and capital Riga) and the water part of the Riga Gulf in front of Riga Planning Region

Implementation by the Riga Planning Region in cooperation with local municipalities, research institutions and private and non-governmental sector **in the form of projects**

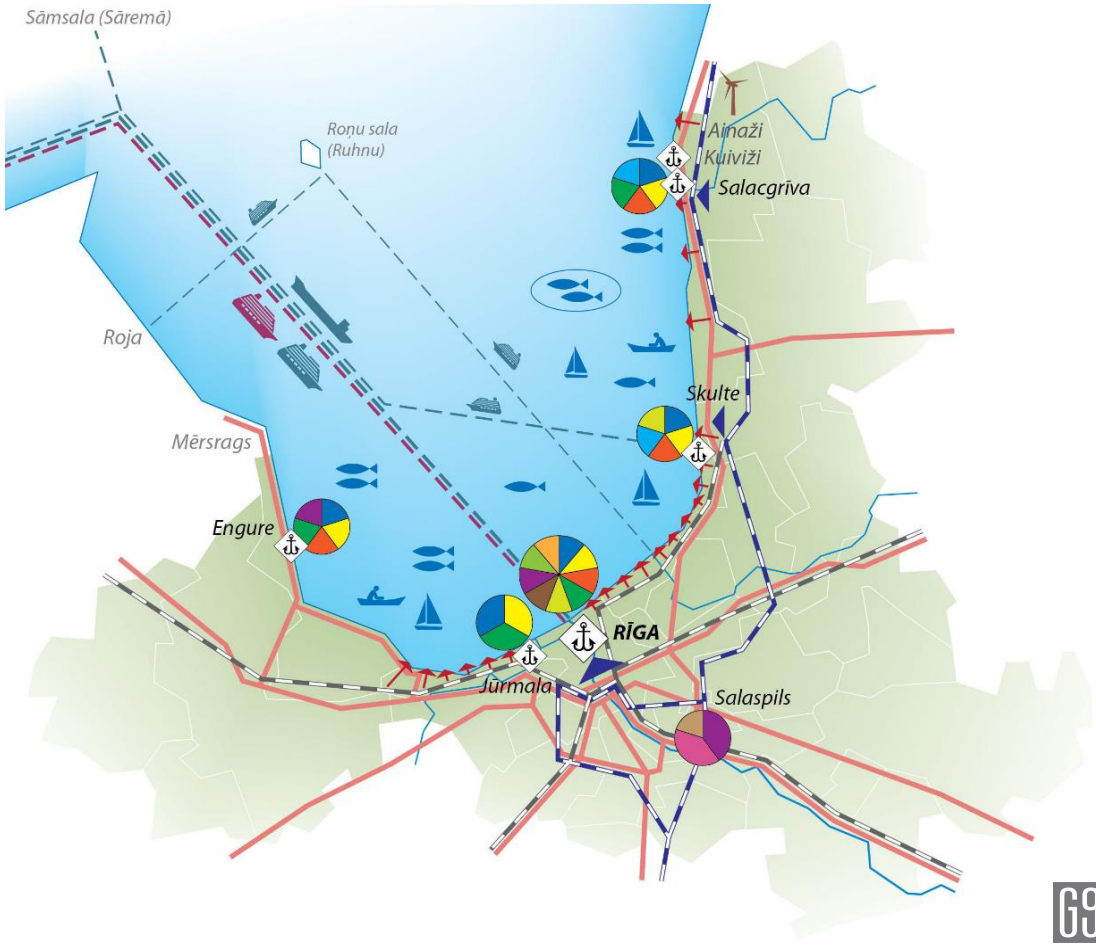
Vision

Development of the **maritime economic** sectors in the Riga Gulf of the Baltic Sea

Riga planning region's coastal **population welfare**,

Strengthening the role of **Riga** as a Baltic Sea **metropolis** and **Jurmala** as a **resort**

and contribution to the sustainable development of **the Baltic Sea Region** states



Thematic directions

Marine transport and shipbuilding

Fishing and Mariculture

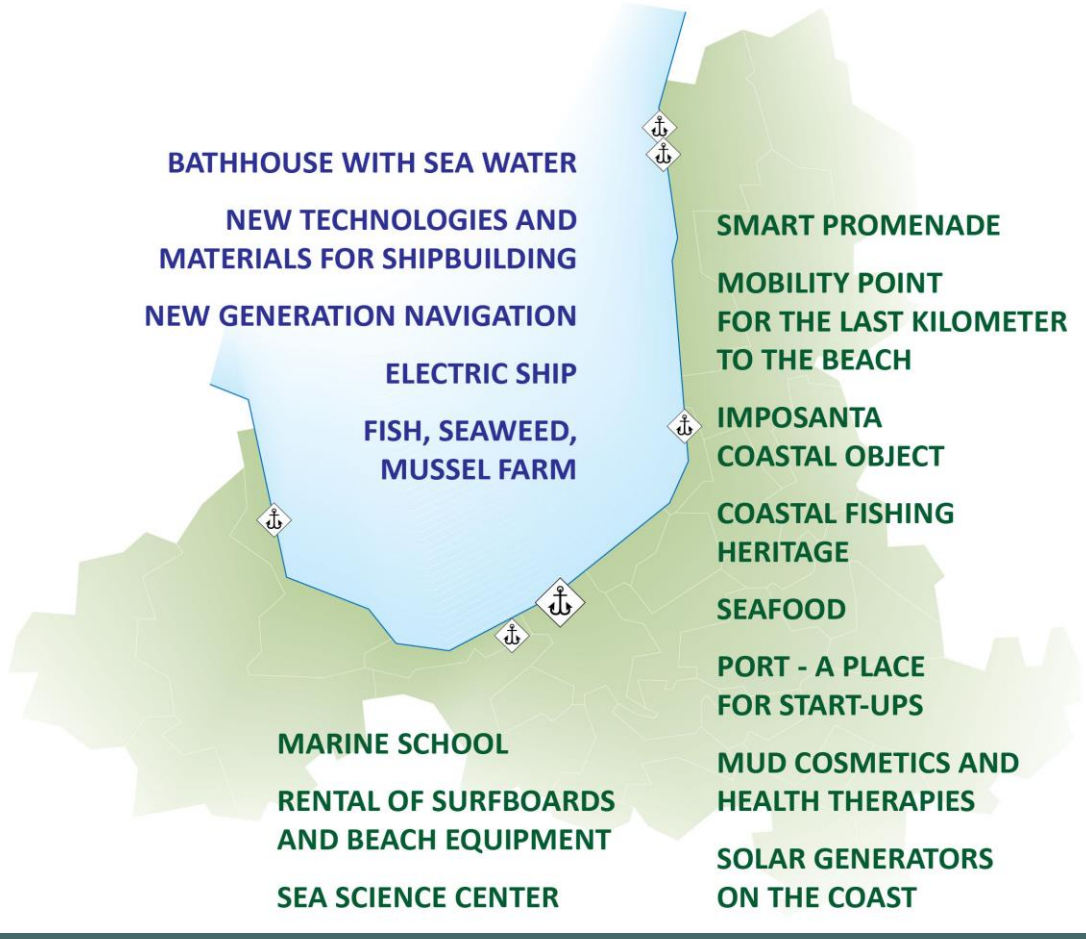
Multifunctional and smart use of coastal areas

Use of RES in the coast

Resort and health tourism

Measures

List which will creatively develop



Thematic direction:
Marine transport and shipbuilding

TD: Marine transport and shipbuilding

1. Investments in infrastructure and knowledge of maritime enterprises
2. Engineering (metal processing, communications, etc.) product development and applied research program
3. Development of urban environment and services around yacht ports
4. The use of Rail Baltica railway potential for coastal development
5. Port start-up program for the promotion and diversification of entrepreneurship in the coastal areas
6. Local passenger ferry traffic
7. Riga Gulf coast and the Old Riga water connections for tourists, construction of the marinas and boat berths
8. New international shipping routes

O`Yachts!, Dienas Bizness 01/06/2018

1. Investments in infrastructure and knowledge of maritime enterprises

Optimization of shipping energy efficiency (improving the shape of the hull by improving the shape of the fuselage, propeller)

Technology, equipment and environmentally friendly materials (cleaning of ships from petroleum products, re-extraction of petroleum products), etc.

IT solutions for shipbuilding, fishing, maritime transport and related equipment

floating structures

modernizing the construction and maintenance of port infrastructure

electric car, self driving etc. new generation shipbuilding pilot projects

specialized vessel types and equipment (for work on the seabed, for the production of artificial substrates at various depths, service stations on the water, etc.)

ship clusters

marine research and monitoring technologies

Interests of municipalities:

- *Reconstruction of the hydro-technical structures and berths of the port of Salacgriva, maintenance of the ship roads, deposit of exhausted land at sea;*
- *Development of Ainaži port infrastructure;*
- *Improvement of infrastructure of Kuivizu port;*
- *Establishment of a yacht berth and marinas infrastructure in Tuja, Limbaži and Dunte, Gauja, Lake Lilaste, Ragaciems (pontoon), Lielupe,*
- *Development of Skulte port infrastructure and reconstruction of access roads;*
- *Development of Engure port infrastructure and reconstruction of access roads;*
- *Maintenance of Jurmala harbor ship's roads, development of infrastructure, including navigation;*
- *Improvement of maritime safety at the Riga Freeport - modernization of the vessel traffic control center, modernization of navigational means, ships' routing system programs, etc.*
- *Modernization of Riga Freeport's port information system and customs procedures;*
- *Development of Riga Freeport's land access infrastructure and extension of the shipping routes;*
- *Development of Riga Freeport's terminals;*
- *Modernization of Riga Freeport's pilots and tug ship*

Ports - coastal economic development and knowledge centers

2. Engineering (metal processing, communications, etc.) product development and applied research program

Contribution to increasing the efficiency of shipbuilding companies and shipping companies, development of equipment and products, sustainable use of local resources and creation of innovative products

A wide range of disciplines in the field of natural sciences

Support for research projects that promote the emergence of new technologies, prototype production, testing, demonstration, upgrading, development of applications, etc., as well as indirect support for their introduction into production (commercialization phase)

Support for business partners, companies, municipalities, ports that provide a testing environment, and educational and scientific organizations that provide the academic side of innovation.

Small ports in cooperation with institutes, universities - support of research base

3. Development of urban environment and services around yacht ports

At present - only villages around the ports, which do not call for «land off»

Small ports are modern and attractive for yachtsmen

Integration of ports into the Baltic Sea marina port network

Municipal and state made **public infrastructure around ports**:

- pedestrian and bicycle path, waterfront promenade, pontoons, constructional pedestrian ways above the water
  Cafes, service objects
  Imposing objects (water tourism center, seal-quarium center, a marine museum, etc.)
  the viewing platform and structure
  bike rental, boat rental

Companies that develop manufacturing and service companies around the small port will also benefit

4. The use of Rail Baltica railway potential for coastal development

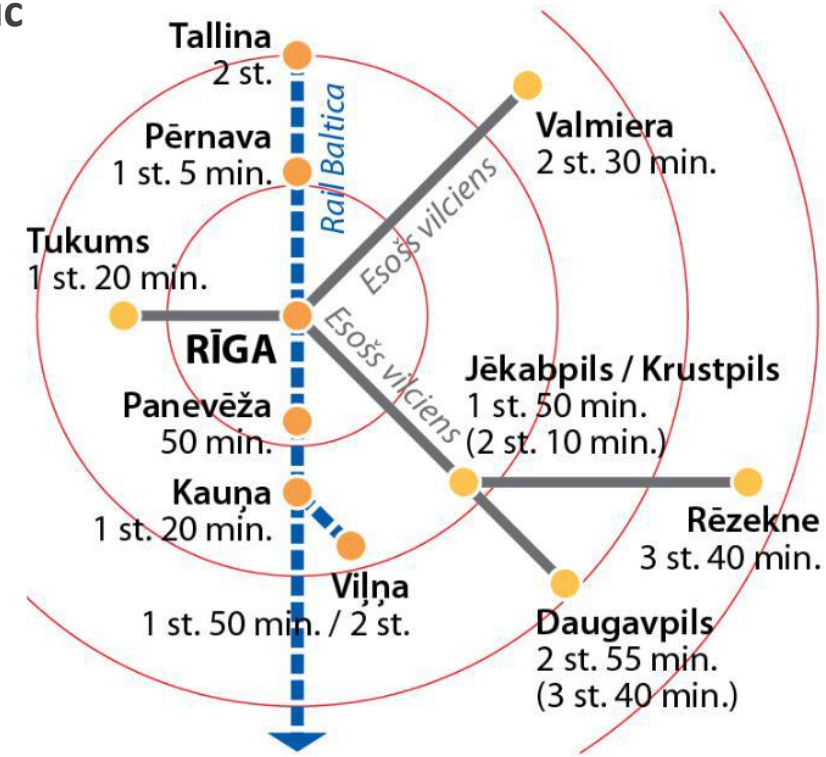
- accessibility of European cities in a much **shorter time**
- **new type of mobility** – common **business, living and recreation space of the Baltic States**
- **huge opportunities for cooperation** across the entire transport corridor from Scandinavia to Europe

In the long run, **regional train traffic**

possibility for new regional passenger stations (Salacgriva, Vitrupe, Tuja, Stiene, Skulte, and city stations in Riga)

and freight tracks to Skulte and Salacgriva ports

- **Rail Baltica railways and small ports connecting roads, logistics infrastructure**
- **Infrastructure for pedestrians and bicycles roads across Rail Baltica**
- **Integrated mobility services, incl. ferry traffic**



5. Port start-up program for the promotion and diversification of entrepreneurship in the coastal areas

The ports are already «major players» on the coast of the Riga Gulf with stable capacity

It is possible that **ports are the place where new start-ups can emerge**: shipbuilding and maritime transport and tourism subcontractors

Coastal Support Program, which is managed by the port authorities

In the future, the areas around ports are suitable for both business and tourism

Riga Freeport - multifunctional port, increasing the port market share of total cargo and passenger turnover in the eastern part of the Baltic Sea region
Salacgriva port is a port that promotes Salacgriva as an economically independent regional center
Skulte port - (4th largest port between small ports). the only CCGT terminal in the Baltics. Develop an existing trading harbor and develop ferry traffic
Engures port – will develop an existing trading port and develop fish processing
Jurmala port - the only port with inland - Lielupe - waters) and develops in the marine resort city. Greenest port of Latvia. Yacht tourism, coastal fishing and river transport

6. Local passenger ferry traffic

if the time spent on the water does not exceed the time on the motorway

ferry traffic between

- the banks of the river Lielupe (between auto bridges - 12km)
- the banks of the river Daugava, between Riga's parts Vecmīlgrāvis and Bolderāja (the nearest Vanšu bridge is busy)

- between Bolderaja and Mangaļsala, which links the sights of the cultural heritage (the Daugavgriva fortress, Kometfort, the fortifications of the fortress building in Mangalsala, as well as the two Daugava piers)

Visitjurmala.lv

7. Riga Gulf coast and the Old Riga water connections for tourists, construction of the marinas and boat berths

One-day trips from the berths in the Daugava (opposite to the Old Riga) to the small ports on the coast of the Riga Gulf or the newly established berths

Inland waterway connections with the coast of the Riga Gulf (berth infrastructure)

Gauja - Rojusala

New berths in Salacgriva, Ainaži, Kuivizi, Zvejniekciems, Carnikava (Gauja), Jurmala (Lielupe), Engure, Riga (Buļļupe, Daugava, Vecdaugava) incl.

Boat berths as the final stop of sailors along the Gauja River in Carnikava;

Modernization of fishing boat berth in Carnikava county;

Strengthen the Gauja coast and set up a quay at Porto Resort Hotel in Carnikava;

Creation of a pontoon yacht marina on Ragaciems Beach in Engure Region;

Construction of Jurmala harbor quay in Lielupe, Jurmala;

Reconstruction and construction of boat berths and slopes in Lielupe at Sloka, at Krasta street, at Druvciems near Ezera Street, in Lielupe at O.Kalpaka Avenue, at Valtera Avenue, at Tīklu Street in Jurmala;

Establishment of the yacht and boats berth infrastructure at Tūja, Limbaži and Dunte in the Salacgrīva municipality,

Development of Skulte port infrastructure and reconstruction of the access roads;

Development of the infrastructure of Engure harbor and reconstruction of the access roads;

Maintenance of the shipping routes of Jurmala port, incl. development of navigation infrastructure, in Jurmala;

Modernization of berths and boats (slipways) in Buļļupe and Daugava at Vecdaugava, Riga.

8. New international shipping routes

From Riga passenger port ferry service to Stockholm is offered, as well 70 - 80 cruise ships arrive in the passenger port of Riga each year (in 2017 - 85), representing more than 20 different cruise operators

New international ferry routes in the Baltic Sea from small ports
to the **Scandinavian countries**

Ferry Terminal, etc. infrastructure at small ports and mobility services to the port

Thematic direction:
Fishing and Mariculture

TD: Fishing and Mariculture

9. Support for the introduction of environmental requirements in fisheries
10. Preservation of coastal historic activities and cultural heritage
11. Integrated mariculture (fish, algae and mollusks) growing pilot projects
12. Research to develop new pharmaceutical products and medical therapies

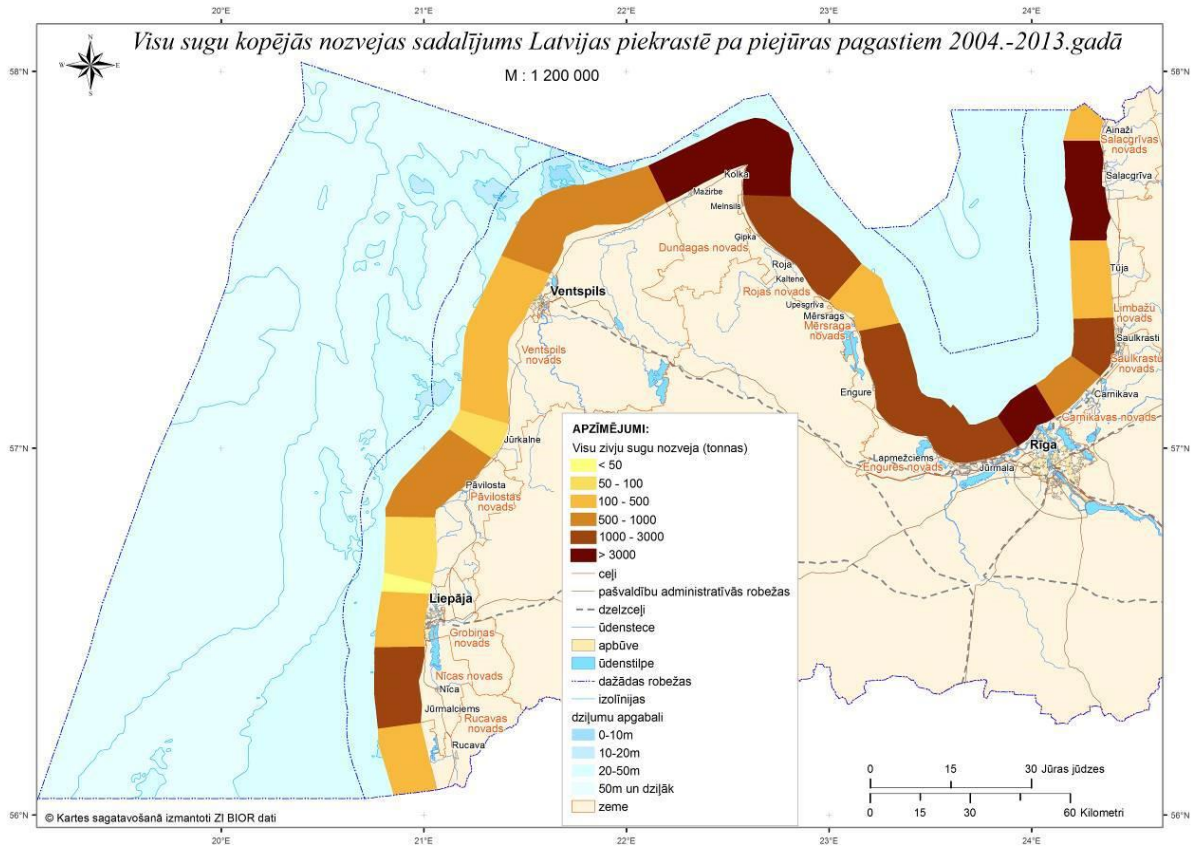
9. Support for the introduction of environmental requirements in fisheries

Support for vessels and ports,

especially for small and medium-sized enterprises

to promote compliance with international requirements and the implementation of EU regulations

Types of support see in measure 1. Investments in infrastructure and knowledge of maritime enterprises



10. Preservation of coastal historic activities and cultural heritage

The **role of small fishing enterprises and fishermen** - fisheries tourism

- **coastal occupation skills, lifestyle, income generation, tools, traditional landscape as a tourist service**

- related tourism products - sea food, taste and senses maritime tourism, based on the historic development of the coastline, combined with developing technology and safety

Herring, etc. gastronomy

- Encouraging and fostering the interests of the young people

- support for **coastal property management** (beach cleanliness, private coastal roads, maintenance of fishing gear, etc.)

Luciņu vēršana žāvēšanai Kalnabalkšu mājās Apšuciemā. 1930. gada 20. jūnijs. Foto – Eduards Dzenis.
Latvijas Nacionālais vēstures muzejs (UNESCO)

Verga – an instrument for making wholes for under-ice fishing

Sedums – fishing boat mooring on beach

Suntuļi – dump of the fishing net

throw around fish catch – insert wires into the sea to tow to shore

Stelts – a card and two strips aside

Āmis – fishing net bag, the end where the fish go inside. The codline is marked so you can see how straight it comes from

Uzžākarēt – Look for lost fishing nets in the sea

Salēzēts – arranged for fishing

11. Integrated mariculture (fish, algae and mollusks) growing pilot projects

The study how baby lamprey survive and where they swim

The study whether people are willing to switch diets (small mussels, sea bream)

at the same time research projects and tourism objects

Study / pilot project on integrated cultivation of maricultural species (fish, shellfish, algae) in the specific conditions of the Riga Gulf

each organism is a beneficiary

- Fish farms cause contamination of nutrients. Shellfish and algae filter, feed and purify water
- Under low salinity, smaller bivalve molluscs grow. On such a farm, they carry out an ecosystem maintenance service
- Algae and bivalve molluscs are used as biomass for fish feed. It is not necessary to look for these resources elsewhere at sea

Biofouling on suspended mussel lines increases biodiversity.

European seabass cage. Photo: Béatrice Chatain, Ifremer.

European seabass cage adjacent to the Frioul Islands near Marseille. Photo: Béatrice Chatain, Ifremer.

European seabass broodstock at the Palavas research station of Ifremer. Photo: Béatrice Chatain, Ifremer.

12. Research to develop new pharmaceutical products and medical therapies

Investigation of pharmaceuticals, medicinal cosmetics and medical therapies, approbation based on mud and algae resources available in the Riga Gulf

legal aspects in the healthcare and SPA sector,
marketing, clustering, benchmarking

Thematic direction:
Multifunctional and smart use of coastal areas

TD: Multifunctional and smart use of coastal areas

13. Mobility points
14. Improving access to the coast
15. Introduction of new principles in coastal transport and tourism services
16. Smart promenades
17. Magnet objects on the coast
18. Improvement of beaches and diversification of leisure facilities
19. Water sports and water activities centers
20. Development of Eurovelo 13 and its links with the surrounding coastal area bicycle network
21. Program "Marine Studies"

13. Mobility points

the purpose is

- **to facilitate the transition from one mode of transport to another,**
- **provide a convenient connection between destinations and**
- **provide a diverse support infrastructure for the «last mile»**

Coastal Mobility Point

"car / train / bus - bicycle / foot - boat"

- cycling, electric scooters, etc. hire, shed
- directions signs
- mobile phone app (routes, public transport and services available around the coast area)

Car parking away from the coast, at a remote location - at stations, stops

Water activity centers can be attracted

Car parking away from the coast
- at stations, stops

http://*www.sharedmobility.news/multimodal-sharing-systems/#*

14. Improving access to the coast

Access roads - basic infrastructure without them the blue growth measures can not be implemented

- Aim - to provide links from public (state or municipal) roads to the coast
- to reduce the flow of private cars, **to calm traffic near the beach**, making the coastal area attractive to pedestrians. Reduce sound and air pollution at the coast, making it more enjoyable to stay in the 'open doors' public space - in the streets, squares, outdoor cafes. Use smart methods in the construction of roads, streets, bicycles and pedestrians (narrowing the car lanes, light and smart alert facilities, frequent, and extensive bike and pedestrian crossings)
-

Municipal roads and streets, car and bicycle parking lots, stops, electric vehicle charging points

Walking and cycling paths, paths to the beach, boat tracks

Railway crossing (in Kalngale, for example)

15. Introduction of new principles in coastal transport and tourism services

Projects which introduce a **sharing service**:

- in transport and tourism (*share cars, share bikes*);
- in water tourism (*share yachts, share-boats*);
- in provision of accommodation (Airbnb as an alternative to regular hotels)

Projects **introduce the use of** solar or other **RES**

Projects **encourage walking**, **cycling or other active means of moving around (skateboards, etc.)**

Projects introduce mobile **applications**, support platforms, gadgets and devices in scope of maritime issues

16. Smart promenades

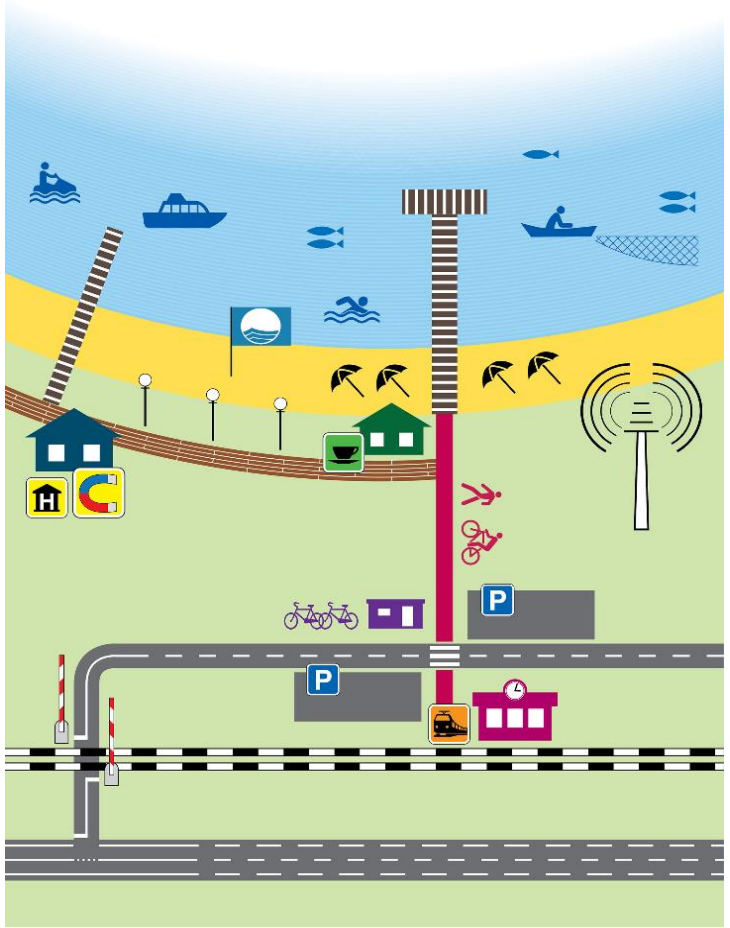
The smart promenade **promotes coastal walk*abality* and leisure activities**

Pedestrian road / street along to the beach ... .. trail / wooden trail in dunes .... natural beach section ... .. pedestrian bridge / trail above water

Along the promenade - cafes, exhibitions, sightseeing, environmental, art and informational objects, mobile phone charging station, storage facility, sunshade, raincoat rental, public toilet, etc.

Design style, mobile app, links to magnet objects - destinations

New forms: pedestrian piers, pedestrian footbridges on stilts, floating platforms, elevated terrain trails or other interesting design - everything that promotes interest in walking



17. Magnet objects on the coast

interesting objects developed by local governments

Ideas for new magnet objects based on local resources and tourism development trends (exploratory, active, sense-based tourism, based on new mobility and economic habits and technologies)

The list can be creatively developed:

- **Swimming pool with warm sea water throughout the year**
- **Fenced, separated swimming pool for a special target or leisure group**
- **“Seal-quarium” - a center for cultivating, training, caring and demonstrating seals and entertaining and educating visitors**
- **Maritime Museum, Fishing Museum**
- **Nature Education Center (similar to Kemeri)**
- **Diving Center or diving services at existing water activities centers**
- **Smart beach (see "Smart Promenades")**
- **Ice and sand sculpture, rustic tree beach design**
- **Accommodation in the sea, sauna in the sea with the possibility to jump into sea water**
- **Rental of equipment for watercraft and various water activities**
- **Floating structures, piers and tracks in the water**
- **Sunrise observation place in Engure and sunset observation places in Jurmala (Jurmala White Dune) and Saulkrasti**

Magnet object:

- new destination
- attracts visitors to the area
- indirectly benefits the hotel, sanatorium, spa, etc. service companies

18. Improvement of beaches and diversification of leisure facilities

To offer active and passive leisure facilities on the beach (intensively visited) and near surroundings, and on the water

mieraosta.lv

Provision of basic amenities infrastructure - toilets and showers, dressing cabins, benches, garbage cans, signs - using simple rational, seasonal constructions

Extra improvements

games and playgrounds for children of all ages
beach inventory, active recreation equipment
cell phone charging station, small items storage facility, SOS
information tabs, bathing digital billboards
Seasonal accomodations: resting place, creative workshop, cafe, stage, sauna with sea water, tent spaces in dunes or beaches in separate stages
showers, changing rooms - SUP boards, Nordic walkers, runners, etc. active recreation infrastructure camping grounds

preferably use new, innovative materials, solar and wind powered equipment, ergonomic beach furniture and, and in the future raise the level of comfort enabled by new technologies

19. Water sports and water activities centers

Water centers on the beach if there are

- **access roads and engineering facilities**
- **near rescue services, as well at marinas**

Use of water for active recreation: **wakeboarding, kiting, skim boarding, sky skiing, using bathing mattress, water motors and various types of boats**

In addition training and relaxation services (activity rooms, sauna, barbecue, beach volleyball and beach football)

- Water activities center in Majori and construction of the ferry terminal
- at existing ports and at new marinas

20. Development of EuroVelo 13 and its links with the surrounding coastal area bicycle network

Part of the EuroVelo 13 is marked, 16 bicycle stands and 12 bicycle information stands are installed, Vidzeme bike map prepared in the Vidzeme Tourism Association bicycle project CentralBalticCycling

The route from the Ainaži to Riga route, in major part coincides with intensive highways. There is a plan to build and develop more 140 km of bicycle infrastructure by 2020 in Vidzeme

www.vidzeme.com/eirovelo13

Construction and Improvement of Eurovelo 13

Construction of the local bicycle roads to link local infrastructure with EuroVelo 13

21. Program "Marine Studies"

Riga Planning Region with the longest coastline, ports and human resources should position itself as a **"sea-aware, sea-known"** region

Knowledge helping businesses, municipalities and in ports' work

- what is the optimal type and configuration of the port's external hydrotechnical structures with less impact on shore processes, sediment flow at sea, etc.
- what is the impact of climate change on the coastal areas of the Riga Gulf (flood, erosion, ecosystem change risks)
- what are the regional tourism trends (various tourism research)
- best practices for the use of sludge in healing, etc. natural resources research

Secondary vocational and higher education programs

- New **interdisciplinary curriculum**

Blue growth smart specialization clusters

Thematic direction:
Use of RES in the coast

TD: Use of RES in the coast

22. Tracking wave energy development
23. Pilot projects on the use of wind potential and research
24. Use of solar energy

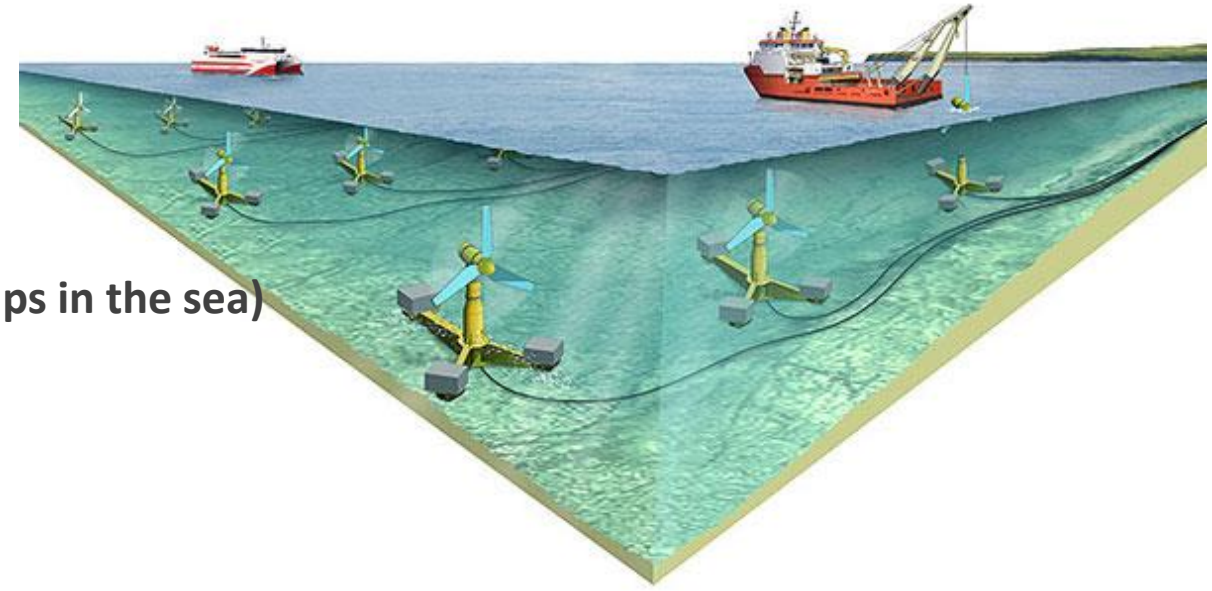
22. Tracking wave energy development

Studies on the use of wave energy

Industrial prototypes

International scientific cooperation

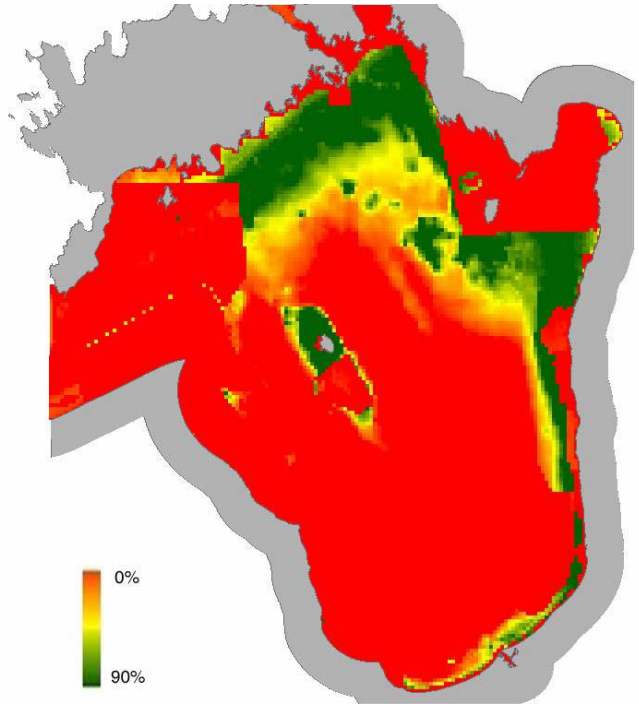
Studies of various alternative energy sources (heat pumps in the sea)



23. Pilot projects on the use of wind potential and research

Capital investments (bearing preparation, wind turbines and installation of other constructions at sea base, their maintaining, access by crew vessels during ice) are disproportionately **high against the expected efficiency** of wind parks in Riga Gulf.

There is much more potential for using the **wind potential on the coast** - the installation of wind turbines on the land, especially on the eastern coast of the Riga Gulf, where annual average wind rates are close to wind energy efficient projects



allinas tehnoloģijas universitātes Jūras sistēmu institūts, Projekta Gorwind" ziņojums "Rīgas līča vēja resursu piemērotības novērtējums", 2011, Tallina (http://gorwind.msi.ttu.ee/result)

projects on gaining experience and research to follow the latest trends in the world of wind farms installed on sea and on the coast

- in development of wind farms on sea - design, planning and multifunctional use of wind farm structures (mariculture, biomass, wave energy, etc.)

24. Use of solar energy

Use of solar cells for **house heating, operation of equipment, and outdoor space improvement** (lighting, swimming pools, information tables, etc.)

Solar **battery installation, energy saving** innovations

The pilot project within the SBR project - **the beach mobile phone charging point**

- powered by a solar cell
- counts number of charging times (relative data on beach attendance)
- keeps small things

www.ekoenergo.lv

Thematic direction:
Resort and health tourism

25. Hospitality Schools

Hospitality is the key to the quality of the industry

All kinds of support measures for resort development, **cover the needs of companies and workers in the health tourism and hospitality sectors**:

- development of resort infrastructure,
- rebirth of resort healing services
- introduction of new technologies in clinics and treatment institutions
- studies and approbation of new treatment approaches
- training of the resort specialists, hospitality industry staff
- resort marketing activities

www.visitjurmala.lv

Targeted on Jurmala, Saulkrasti, Riga, and other coast as support area

re-foundation of the resort clinic (poliklinika) in Jurmala

IMPLEMENTATION

Implementation in the form of projects

a project framework for the planning period **after 2020**

for the Riga Planning Region target space "Coast" (Piekraste)

Implementing bodies

- Riga Planning Region
- Municipalities
- NGOs
- Entrepreneurs
- In cooperation with national and international partners

Implementation in the form of projects

The next step is the development of priority projects –

justification, identification of cooperation partners and planning of specific activities

Priorities - Strategic project ideas

- **Ports - coastal economic development and knowledge centers**
  - Port' managed program for start-ups, scientists. Arranging public infrastructure
- **Network of marinas and boat embarkation points**

  Yacht harbors, marinas, boat embarkation / slippers, water activities centers
- **Basic public infrastructure in coastal areas**

  Transport and pedestrian infrastructure, beach improvement, mobility points, Eurovelo
- **Scientists for the blue growth**
  - Blue growth smart specialization clusters, research and pilotprojects, interdisciplinary curriculum, training programs integrated in secondary and professional education system