ESTONIAN – LATVIAN JOINT STRATEGY

FOR HARBOUR NETWORK DEVELOPMENT

Introduction

Current strategy has been developed under the Estonia-Latvia Programme project “Possibilities for Public Private Partnership in upgrading harbours for offshore developments”. The project covers the harbrours of Latvia and Estonia in the Gulf of Riga area as well as relevant harbours of Hiiumaa island.

The strategy emphasizes the importance of harbours in the maritime economy and their role in the green transition. By fostering collaboration and investment, both countries can enhance their harbour networks to support offshore wind farms and other maritime activities, leading to sustainable economic growth and resilience in the face of climate change.

The strategy relies on baseline studies conducted in 2024 (Annexes 1-3), aiming to create a foundation for the future joint coordination in planning harbour developments in Talsi, Saaremaa and Hiiumaa municipalities, considering the growth of offshore activities, especially wind farms, in the marine areas of Latvia and Estonia. It seeks to provide a joint vision for the development of harbour network in both countries and assist in local and regional planning by identifying necessary actions for future development and investment planning.

Key terms include:

- EIA: Environmental Impact Assessment
- CTV: Crew Transfer Vessel
- O&M Harbour: Operation & Maintenance Harbour for offshore wind farms
- OWF: Offshore Wind Farm
- SOV: Service Operation Vessel

Trends

Maritime Economy: The development of harbours is intertwined with the evolution of maritime economy. The EU Blue Economy report categorizes traditional sectors (like maritime transport and coastal tourism) and emerging sectors (such as ocean energy and biotechnology). The Blue Growth strategy identifies aquaculture, marine biotechnology, ocean energy, and seabed mining as sectors with significant growth potential.

Green Transition: The future of ports and harbours lies in becoming energy hubs and participating in the circular economy. Ports and harbours must adopt smart digital solutions to optimize operations and reduce pollution.

Renewable Energy: In 2023, Europe had 32 GW of offshore wind capacity, with a need to increase to 24 GW annually by 2027-2030 to meet climate targets. Harbours play a crucial role in the green transition by facilitating the production of green energy and adapting to climate change.

Technology: new renewable energy sources, new generation service vessels, the trend for bigger wind turbines and automatisation provide additional limitations and opportunities for harbours in the future.

Economy: the rapid growth of offshore wind farms projects will increase the demand for technology and equipment, which will affect market prices and investment volumes, decreasing the project's profitability.

Future Demand

Role of Harbours: Harbours are integral throughout the lifecycle of offshore wind farms, from planning and construction to operation and decommissioning. They must provide logistical support, including storage and maintenance services.

Demand for Harbour Services: The operation phase of offshore wind farms lasts up to 30 years, during which harbours must support maintenance and monitoring. Criteria for O&M harbours include appropriate depths and fairway conditions, proximity to OWF areas and logistics hubs, infrastructure, and environmental considerations. The smaller harbours (CTV and SOV harbours) are needed already in the construction phase.

SOV/CTV service models: wherever possible, the CTV model is preferred by both local authorities and wind farm operators. The suitable O&M harbours ard service models are chosen by turbine producers who provide 5-year warranties and maintenance for the wind farms.

Labor and skills: in case CTV shore based service model is executed in Salacgriva and western coast of Saaremaa, both countries will face a lack of skilled workforce. By year 2033, there is a potential of creating about 400 direct jobs requiring special training that is currently not yet available in Estonia nor Latvia.

Uncertainties: the actual realisation of offshore developments, especially OWF-s is depending on several currently unknown factors such as energy grid developments, ongoing EIA-s, changes in investment climate and potential new auctions for marine area exploitation. Therefore, it is crucial to monitor the changes that may have impact on harbours development plans.

Offshore Wind Farms Potential

Future Demand Changes: The expected rise in offshore wind farms will not significantly affect existing harbour services but will create new demand and, therefore, require infrastructure upgrades.

Socio-Economic Impacts: Especially the CTV-model O&M harbours will generate direct and indirect job opportunities and boost local economies by supporting related industries. The impact of 1 GW would correspond to about 45 jobs. The SOV service model is less linked to local employment and economy. Societal value creation cannot be fully captured through the port's income.

Expected Investments: Preliminary estimates suggest that a 1 GW offshore wind farm could generate substantial revenue for harbours. However, port infrastructure is capital-intensive and has a long pay-back period. The extent of investments necessary for infrastructure upgrades to accommodate new functionalities depend on the current state of harbours and investments potential to cut the future operational costs.

Funding models: expected internal profitability of investments for harbours is low, therefore public investments may be justified, depending on the volume of investments required and extent of local benefits expected.

Harbours Perspectives

Offshore wind farms: With the exception for Salacgriva harbour in connection with Enefit Green wind farm project, the harbours located near enough to offshore wind farms to provide CTV service model, are currently not deep enough to render the CTV-model O&M services. For SOV service model, Pärnu harbour for Utilitas wind and Ventspils harbour for ELWIND Lat are being prepared. For the SWE wind farm area, substantial investments would be needed to apply CTV service model from Lõmala harbour. The most likely alternative would be to use SOV model from Ventspils harbour.

The rest of the Gulf of Riga offshore wind farms projects are in an earlier planning phase and have no opportunities for applying CTV service model as there are no harbours close enough to the areas. By the time of construction of those farms, the first wind farms and respective service harbours would be in operational phase and ready to render services to additional wind farms as well. However, later wind farm developments might engage harbours such as Roja, Mersrags, Mõntu and Roomassaare for the Ignitis wind farm project.

The farms planned to North coast of Hiiumaa can apply CTV service model either from Lehtma, Kärdla or Kõrgessaare harbour.

Aquafarms: Emerging opportunities for aquaculture development exist in the northern part of Hiiumaa and northwest Saaremaa, with harbours such as Veere, Saaremaa, Kalana, Lehtma and Kõrgessaare potentially advantageous for servicing aquafarms. In Latvia, while the development of aquaculture is limited by natural conditions, designated areas in the Gulf of Riga are expected to provide future advantages, particularly for harbours like Roja and Mersrags.

Transport and Cargo: While Latvian harbours are specialised in cargo, the main function of Estonian ones is connecting islands. Significant changes in marine transport volumes are not foreseen. However, marine

transport and cargo is challenged by green transition and carbon neutrality goals, which may offer opportunities to develop green shipping related harbour services.

Maritime Tourism: The offshore developments are not foreseen to change the maritime tourism functions of harbours significantly, at least in case, the eventual exact locations of offshore farms consider sailing routes. The cruising tourism can be promoted by providing up-to-date information on cruising routes and harbour services, engaging the complete and sufficient harbours network along the Baltic Sea coastline, including safety and security, shelter and rescue spots.

Fishing: As fishing in the EU is regulated by quotas, the volumes of catch are expected to slightly diminish in time, but local fishing harbours will maintain their role and functions in future. Additionally, they may gain from the aquafarms and offshore energy developments that could provide higher demand for harbour services as well as create business opportunities for near-harbour communities and tourism.

Joint Vision and Actions

The trends in the maritime economy, green transition, and renewable energy highlight the necessity for harbours to adapt and modernize their infrastructure. As developments in each harbour may have impact to the rest of the harbours network, and as the offshore infrastructure is yet in planning phase, the development of harbour services, especially for logistical support and maintenance of offshore facilities, requires a coordinated effort from both countries to enhance operational capabilities and foster economic growth while addressing environmental concerns.

For effective coordination, the joint vision, main areas of cooperation and core actions are proposed to be tackled in both countries' harbour development plans, aiming to create a resilient and multifunctional harbour network that can effectively respond to the evolving maritime landscape and ensure sustainable development in both Estonia and Latvia.

The vision is to develop efficient harbour network that boosts local economies and positions Estonian and Latvian harbours as key players in the Baltic maritime sector by 2035.

The main areas of cooperation:

1. **Integrated Infrastructure Development**: The focus is on creating a network of harbours that can support various maritime activities. This includes investment in infrastructure for servicing offshore wind farms, particularly Crew Transfer Vessels (CTVs) and Service Operation Vessels (SOVs). There's an emphasis on seeking investments for new fuels, gathering detailed information for investment decisions, establishing a rescue and emergency harbour network, and ensuring a proper use-intensity of harbours to increase local benefits.

   Objective: Creating a network of harbours supporting various maritime activities.

Actions:	**Who/How**
● Update and share information on offshore developments and trends, adjust/consolidate local harbour development plans.	
● Assess and synchronize harbour functionalities incl rescue, security, pollution prevention.	Relevant local governments, engaging relevant partners.
● Promote funding for infrastructure updates, incl renewable energy supply, storage and offtake, digital solutions, visitor services.	

2. **Resilient Economic Development**:

   Objective: Creating a network of harbours that facilitates economic growth while encountering environmental and social aspects. Enhancing harbour operational capabilities to support maritime transport, fishing and tourism. The goal is to create multifunctional ports that can adapt to future maritime activities, thereby ensuring resilience and profitability. It also addresses community engagement concerning marinas and coastal developments, proposing ways to alleviate concerns from fishermen and local communities regarding industrialization and tourism.

Actions:	**Who/How**
● Engage and connect local communities in the development of industries, tourism and sailing.	Local governments, engaging harbour owners and other relevant stakeholders.
● Explore, promote and initiate joint projects focusing on harbour network improvements, cooperation and co-marketing.	Seek EU funding for follow-up initiatives.
● Develop a socio-economic impact assessment technique for harbours	

3. Innovation and Workforce Development

Objective: Adopting new technologies in harbour operations, including investments in digital solutions for monitoring and managing activities, energy storage technologies, novel naval architecture and the integration of green technologies and related upskilling activities to foster innovation uptake.

Providing skilled workforce to maintain and operate offshore facilities by cooperating for the development and alignment of training courses in both countries, by promoting student exchanges, and organizing joint teacher training for subjects where there is no available study program, or native speaking lecturers.

Actions:	**Who/How**
● Promote development of aligned training programs for offshore facility operations and marine engineering.	Local governments, engaging vocational educational institutions and university colleges in line with the owners of harbours and offshore facilities.
● Encourage student exchanges and teacher training.	Engage schools, vocational training establishments, universities, industry, community.
● Engage harbours to regional marine technology innovation ecosystems.	Seek funding for follow-up initiatives.

4. Monitoring and Evaluation

Objective: A joint task force of representatives from both countries to oversee the implementation and monitoring of the relevant changes in marine territories and investment climate in order to make knowledge-based future decisions. This includes conducting annual updates on developments, and holding formal annual meetings to review and adjust the strategy based on evolving conditions.

Actions:	**Who/How**
● Set up a joint task force for monitoring trends. ● Conduct periodic revisions of the strategy. ● Facilitate communication between harbours and stakeholders.	Municipalities, engaging relevant partners for keeping harbours development plans updated.

ANNEXES

ANNEX 1. Estonian-Latvian harbours joint strategy survey

ANNEX 2. Public private partnership (PPP) possibilities

ANNEX 3. Possibilities for upskilling