



Sustainable Uses of  
Baltic Marine Resources

# Introductory statement: Technology development and demonstration cases

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# **SESSION F: Technology development and demonstration cases**

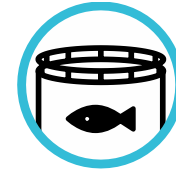
- ❑ **Introductory statement and chair of the session:** Karlis Maulics, Environmental Development Association, Latvia
- ❑ **Mussel meal manufacturing using a lysis process:** Odd Lindahl, The Royal Swedish Academy of Sciences at Kristineberg
- ❑ **Upscaling aquaculture operations in offshore environments – challenges and possibilities in Europe:** Bela H. Buck, Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Germany
- ❑ **Large-scale mussel farming and low production costs in the Baltic Sea Region:** Mads Anker van Deurs, NordShell, Denmark
- ❑ **Simplicity in mussel farming under harsh conditions:** John Tyrstrup, Kingfisher Offshore AB, Sweden
- ❑ **Wave energy in the Baltic Sea: innovative small-scale technology development:** Nerijus Blazauskas, Klaipeda University Coastal Research and Planning Institute (CORPI), Lithuania

# Main SUBMARINER findings – Relevant aspects from the overall SWOT analysis

<b>STRENGTH</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>•Competent research with some experience, pilots and case studies within the BSR</li> <li>•Growing public awareness on protection and use of marine resources (environmental technologies)</li> <li>•Availability of scientific knowledge and well equipped facilities</li> <li>•Technology companies in related industries available within the region</li> </ul>	<ul style="list-style-type: none"> <li>•Currently insufficient solutions of environmentally friendly and cost-effective technology</li> <li>•Lack of technology developments for BSR specific conditions in certain fields</li> <li>•Low technology transfer</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>•Developments in high-technology and bioenergy production</li> <li>•Growing willingness of technology and energy companies to invest in research</li> <li>•Growing demand for local Baltic Sea products; sustainable feeds for organic farmers and aquaculture enterprises</li> </ul>	<ul style="list-style-type: none"> <li>•Lack of willingness/ incentives for public-private collaboration</li> <li>•Challenging framework for creation of new companies in this field</li> <li>•Lack of financial support due to current economic and financial crisis</li> <li>•Competition from other countries (sea-basins) producing cheaper products</li> </ul>

## Session combines two action fields:

### 1. Pilot Sites for Empirical Research (Pilot sites)



**Objective:** Create pilot sites around BSR for empirical research

**Network coordinator:** Environmental Development Association (LV) and KTH Royal Institute of Technology (SE)

**Actors:** Regional and National funding organisations with research and Industry, Local and regional business development parks, private companies, maritime clusters, municipalities, etc.

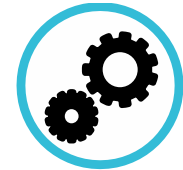


**Promote investments into concrete pilot sites for new uses of marine resources by:** study existing vases inside/outside BSR, develop feasibility studies, present them to public and private funding institutions

**Pilot sites Applications:** IMTA (investigate site specific solutions that could combine fish, algae and mussel farming at one site), RAS technologies, pilot sites for agar production, macroalgae and mussels cultivation pilot sites, microalgae cultivation sites, biorefinery pilot sites, pilot sites for wave energy etc..

Session combines two action fields:

## 2. Technology development and transfer (Technology)



**Objective:** Develop environmentally friendly and cost efficient technologies suitable for Baltic Sea conditions taking into account knowledge and technologies from terrestrial resources

**Network coordinator:** Ministry of Economic Affairs, Employment, Transport and Technology Schleswig-Holstein (DE) and Klaipeda University Coastal Research and Planning Institute – CORPI (LT)

**Actors:** Maritime and innovation clusters, technology parks, private companies



**Foster communication, collaboration and technology transfer in and between BSR countries by:** collecting info about technologies and technology transfer, match-making between technology providers and technology users – ensuring communication, know-how in other BSR countries, study visits, meetings etc.

**Scout for pilot installations and technology providers; enhance information exchange between technology providers and users, foster technology developments**

# SUBMARINER Actors & funding opportunities



## General actors to be involved:

- ✓ private companies
- ✓ Technology parks
- ✓ Development parks
- ✓ Municipalities
- ✓ All stakeholders



## Unlocking financing for technology development:

- ✓ Ensuring involvement of private and public companies
- ✓ Regional and National funding organisations, Municipalities
- ✓ Funding/ financing bodies/ investment funds etc.