

# Submariner

## Sustainable Uses of Baltic Marine Resources

Hans Kuhn, 31. August 2011

Concarneau, „Les rendez-vous a  
Concarneau“



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# Baltic Sea Challenges

- Rapidly growing transport
- New installations (i.e. wind farms, mariculture), increasing competition for space
- Decline of traditional fishery
- Marine pollution
- Excessive nutrient input
- Eutrophication
- Impacts of climate change

**Without clear sense of direction, BSR faces risk of further developing activities which continue to increase pressures on marine environment.**

# New marine uses: an opportunity

**BUT ...** Novel technologies and growing scientific knowledge offer opportunities for new uses of the marine environment with commercial appeal and which may contribute to solving environmental problems!

- Micro- and macro-algae cultivation (and collection) for biofuel production, eutrophication reduction
- Innovative aquaculture solutions
- Mussel cultivation
- Blue biotechnology
- Wave energy
- Reed collection
- Combined uses of offshore wind farms



**To proactively contribute to improving the future condition of the BSR marine ecosystem while promoting sustainable economies by supporting and developing new sustainable marine uses and discouraging potentially damaging ones.**



- **COMPENDIUM**

- Inventory of current and new uses
- Strengths, weaknesses, opportunities and threats to BSR
- Environmental and socioeconomic impacts
- State of technologies
- Market potential
- Gaps and obstacles in legal framework

- **AIM**

- Setting the scene
- Building ground for mid to long term decisions (political/economical)
- Forming base for a sustainable network

- **REGIONAL STRATEGIES**

- Feasibility studies for new uses
- Technological and financial needs
- Impacts on environmental and socioeconomic conditions in the area
- Specific legal constraints

- **Workshops**

- Thematic, open to the public workshops, p.e.:
  - Present and potential use of Algae – A cooperation event  
28./29. September 2011, Trelleborg, Sweden
  - Blue Biotech Cooperation Event: new strategies and future perspectives  
2./3. November, Kiel, Germany

- **Flag ship projects**

- Ecofriendly aquaculture: combination of open systems and „in house farming“ (MVP)
- Water quality improvement through zebra mussel culture (LIT)
- Agar production (LAT)
- Reed and mud collection (EST)
- Micro and macro algae cultivation (FIN)
- Mussel Farming for water quality improvement (SWE)
- Algae production and offshore windparks (DEN)

- **BSR ROADMAP**

- Recommendations for necessary policy steps to promote beneficial uses and mitigate against negative impacts, including
  - Legal changes (e.g. spatial plans)
  - Environmental regulations
  - Economic incentives

- **BSR NETWORK**

- Bring relevant partners together
- Business cooperation events
- Independent network structure
- Virtual information and exchange platform
- Regional, national and BSR-wide roundtables and seminars on new marine uses



Strong consortium of partners from all BSR countries:

- **National environmental ministries/agencies interested in ecologically sound development of the BSR:**
  - Germany Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
  - Ministry of Environmental Protection and Regional Development of the Republic of Latvia (VARAM)
  - Finnish Environment Institute (SYKE)
- **Local & regional economic ministries & development agencies:**
  - Norgenta North German Life Science Agency
  - Latvia Environmental Development Association
  - Trelleborg Municipality (SE)
  - Lolland Energi Holding (LOKE) (DK)
- **BSR networks seeking to create a suitable environment for a successful maritime industry in the BSR:**
  - BioCon Valley Mecklenburg-Vorpommern (DE)
  - Gdansk Science and Technology Park (PL)
  - Klaipeda Science and Technology Park (LT)
  - Entrepreneurship Development Centre for Biotechnology & Medicine
  - ScanBalt
- **Scientific institutes as specialists in new uses:**
  - Maritime Institute Gdansk (PL)
  - Kieler Wirkstoff-Zentrum am IFM-GEOMAR (DE)
  - Royal Institute of Technology KTH (SE)
  - Royal Swedish Academy of Science
  - Klaipeda University Coastal Research and Planning Institute (CORPI) (LT)
  - Tallinn University of Technology (EE)
  - University of Rostock (DE)

# Pan european dimension

- **Submariner as a Role model for**
  - Building the strategy from bottom up
  - Linking the strategy process with pilot projects
  - Activation of regional stakeholders
- Pilot projects as crystallization point for future R&D enterprises
- Knowledge base building and lobbying
- **Submariner as a metaregional partner for pan european activities**

# Goals

- a sustainable network (under the umbrella of ScanBalt)
- show cases of sustainable use of marine resources for lobbying
- a data base
- Visibility for the topic Marine (Bio)Technologies
- Mid and long term: enable new business opportunities



**Thank you !**

