SUBMARINER
Sustainable Uses of Baltic Marine Resources

# Baltic Sea resources, monitoring tools and environmental impacts

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# Main SUBMARINER findings

- **Outcomes from the assessments in the SUBMARINER Compendium:**

Main knowledge gaps:

✓ The resource potential

✓ Cultivation of algae and mussels

✓ Technical development

✓ Environmental effects

- **SWOT**

**Strengths –** mussels, algae and reed are very valuable resources in BSR

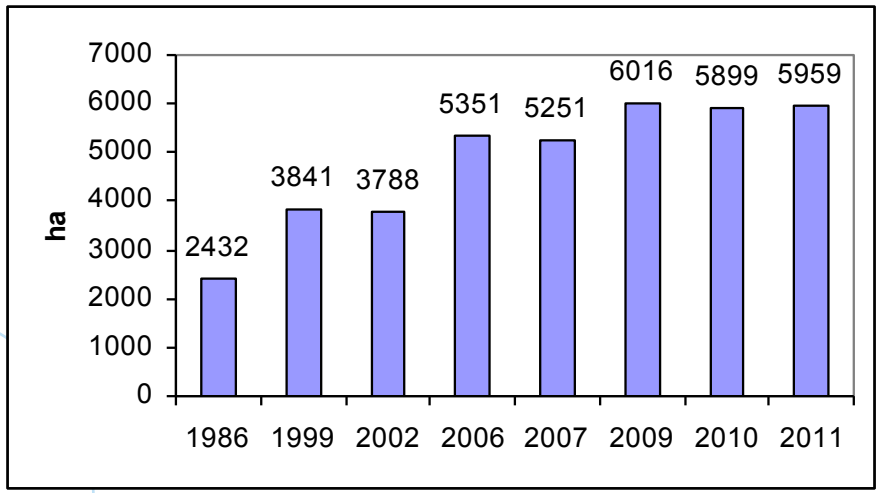
**Weaknesses** – seasonality of biomass production , essential gaps in knowledge on environmental impacts

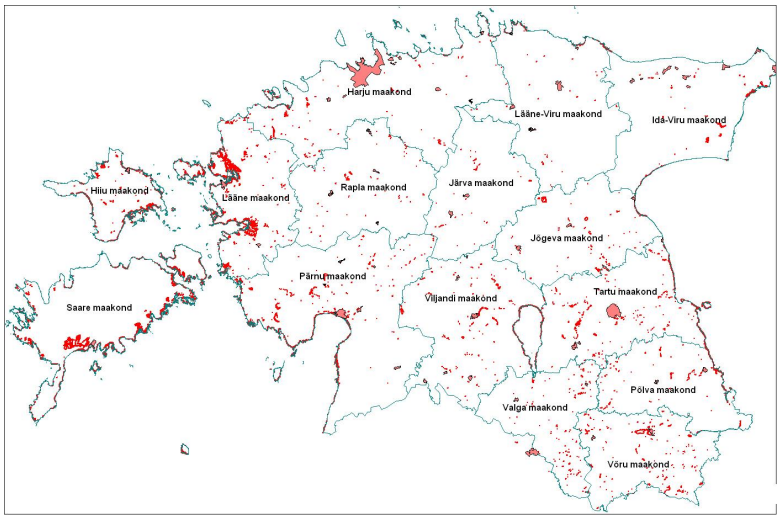
**Opportunities -** improve mapping of BSR resources development of monitoring techniques

**Threats -** Potential changes of nature protection requirements , spatial conflicts

# Regional case - Reed

- Monitoring of reed-bed areas on national level is carried out in Estonia
- Remote Sensing of Estonian Landscapes (Tartu Observatory)




**Changes in Estonian coastal reed-bed area in 1986-2011 by estimation of satellite images of Landsat (left, Tartu Observatory) and the major reed-bed areas (right, map by Tambet Kikas, Roostike…, 2008).**

# SUBMARINER Network actions

## The SUBMARINER Network Action Plan:

### 1. Data sets of Baltic Sea Resources

**OBJECTIVE:** Filling the identified gaps in data availability on Baltic Sea Resources

**NETWORK**

**COORDINATOR:** Tallinn University of Technology (TUT)

**ACTORS:** Research institutes and responsible regional / national bodies for monitoring of marine and coastal resources

**ACTIONS:**

- Establish and implement BSR-wide best practices for monitoring and systematic mapping.
- Identify and recommend institutional structures for permanent monitoring
- Link the data sets with surveys and mapping of other local (terrestrial) resources
- Develop a system to support the use of existing monitoring data

# SUBMARINER Network actions

**2. Environmental impacts on water quality and habitats (Environmental impacts)**

**OBJECTIVE:** Close knowledge gaps on environmental impacts of innovative sea uses

**NETWORK COORDINATOR:** Latvian Institute of Aquatic Ecology (LV) and KTH Royal Institute of Technology (SE)

**ACTORS:** Relevant public and private research institutions and intermediary Bodies

**ACTIONS:**

- Promote and conduct systematic research on the role of reed beds macroalgae, mussel harvesting and cultivation on local biodiversity and water quality
- Investigate the impact of wave installations on the marine environment;

# THANK YOU!