

## “Sea Our Future”

### Schleswig-Holstein’s Maritime Approach

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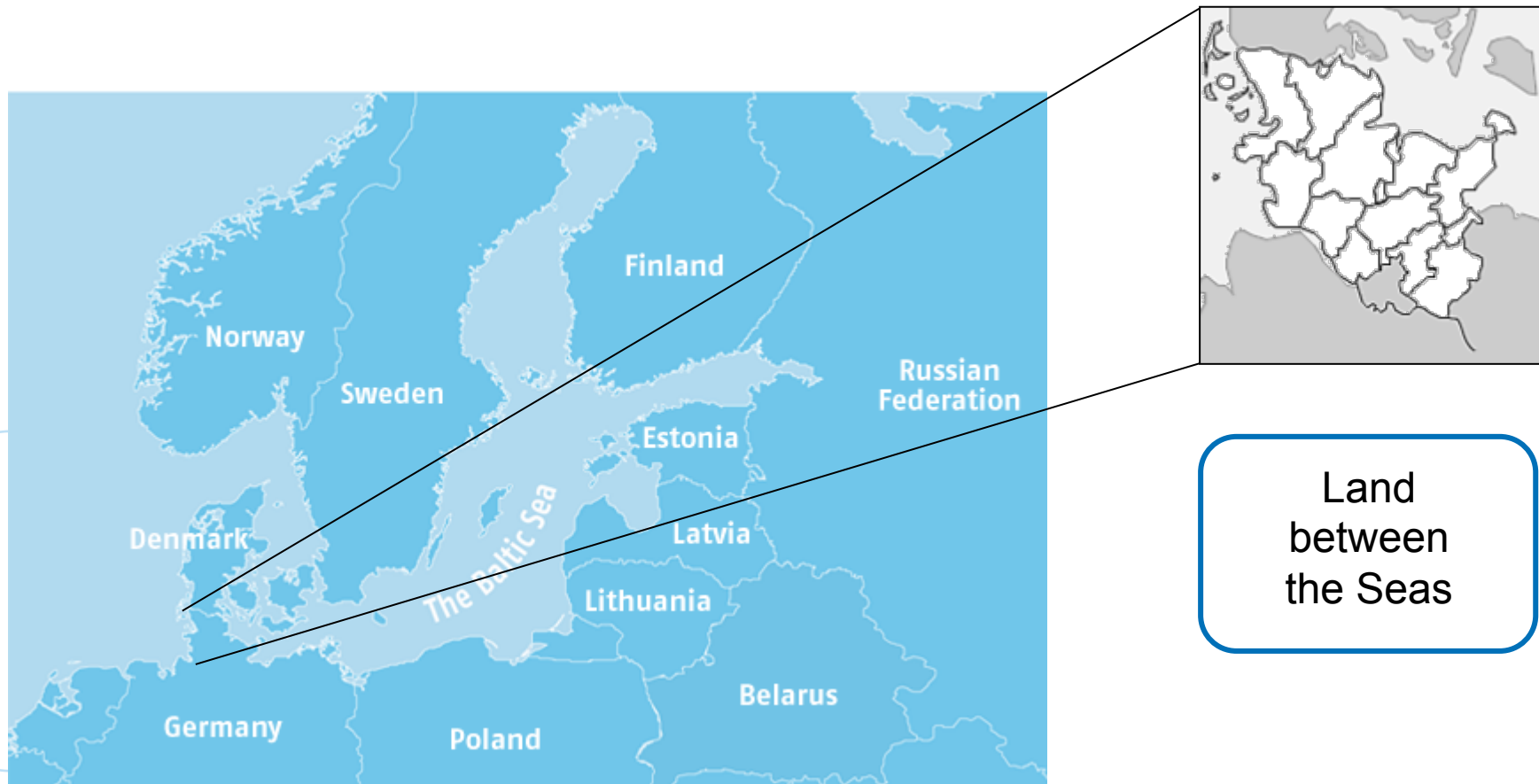
Ministry of Economic Affairs, Employment, Transport  
and Technology of Land Schleswig-Holstein

5 September 2013

Gdansk



Part-financed by the European Union (European  
Regional Development Fund)



- Total Area: 15.799 km<sup>2</sup>
- Capital: Kiel (240.000)
- Population: 2,83 Mio
- Economically active population: 1,28 Mio
- Rate of unemployment: 7% (national average 7,2%)
- Business: 99% are SMEs (less than 250 employees)
- Focus: Medical technology, maritime, food, information and communication technology, machinery, renewable energy, health, life science
- Life Science: medicine, medtech, biotech, pharmacy



# Schleswig-Holstein Initiative “Sea Our Future”

## Initiative of Land Schleswig-Holstein (2004)

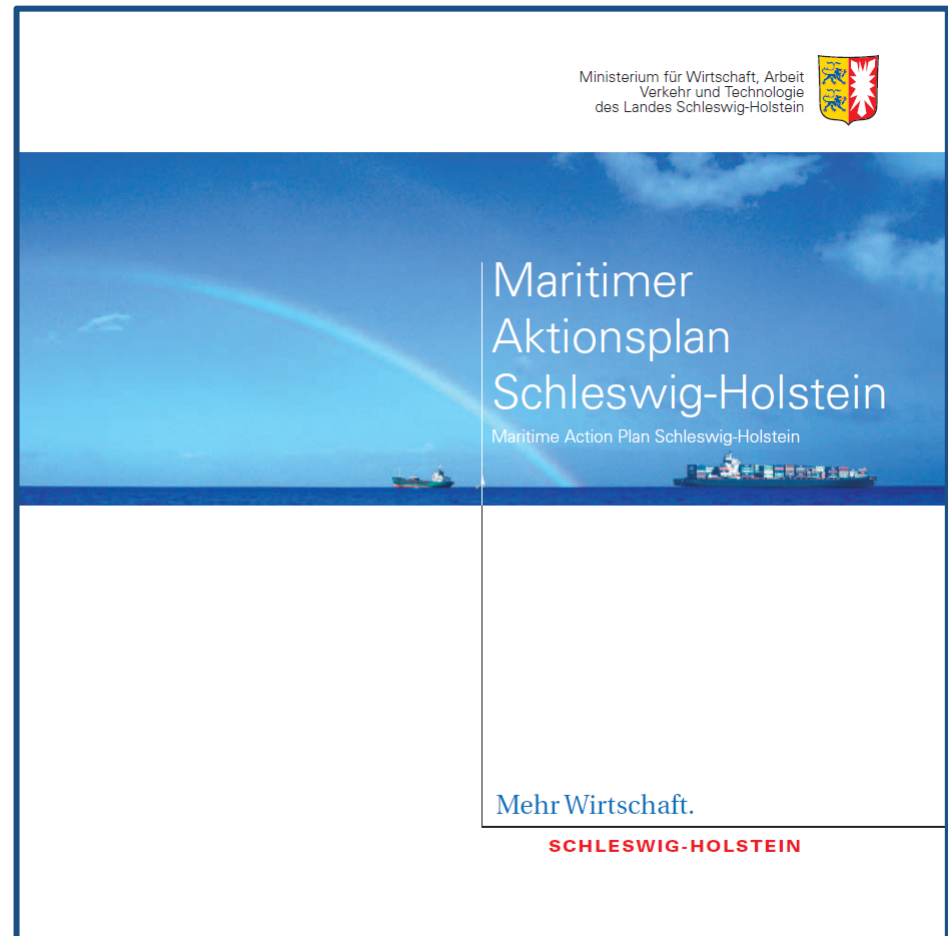
- › “to promote a structured, integrated, and innovative maritime policy and
- › to project Schleswig-Holstein’s maritime expertise beyond the region”
- › pooling and coordination of maritime activities in Schleswig-Holstein
- › concentration of maritime competences
- › creation of networks and clusters
- › support innovation and ideas
- › strengthen maritime economy
- › maritime model region
- › Maritime Action Plan



Zukunft Meer  
sea our future

# Maritime Action Plan

- Bilingual Maritime Action Plan of the government of Land Schleswig-Holstein
- Part of “Sea Our Future”
- First developed in 2008, follow-up in 2013
- Sets out key guidelines for innovative and integrative maritime policy
- Shows resulting projects, both for the future and those that have been successfully completed



# Maritime Action Plan Examples

## 1. Maritime Cluster Northern Germany

- › started in Schleswig-Holstein in 2005
- › extended by the Länder Lower Saxony and Hamburg in 2011
- › link governments, companies and science
- › pool experiences of the actors
- › coordinate and initiate joint projects
- › focus on technology-driven innovations
- › foster competitiveness of the maritime industry
- › create new jobs



# Maritime Action Plan Examples

## 2. Marine Aquaculture

- National Competence Centre for Mariculture in Büsum:
  - marine fish aquaculture (circulation system)
  - research facility in Büsum established in 2009
  - newest scientific and technical specifications
  - own research and commissioned research for companies
  - education and training
  - coordinate mariculture in Schleswig-Holstein





# Maritime Action Plan Examples

## 2. Marine Aquaculture

- Fraunhofer Research Institution for Marine Biotechnology in Lübeck:
  - develops new technologies, processes and instruments in the fields of
    - biological water quality monitoring,
    - aquaculture technology,
    - cellular technologies...
  - Focus in aquaculture: integrated multi-trophic aquaculture (IMTA)





# Maritime Action Plan Examples

## 3. Marine Biotechnology

- Fraunhofer Research Institution for Marine Biotechnology in Lübeck
- Kiel Centre for Marine Natural Products – KiWiZ – at GEOMAR:
  - competence centre supported by Land Schleswig-Holstein
  - Algae, sponges, bacteria
  - Search for new active substances
  - Pharmaceuticals and cosmetics
- Master plan Marine Biotechnology for Schleswig-Holstein



# Masterplan Marine Biotechnology Schleswig-Holstein

**Research institutions in total: 22**  **Basic & Applied Science**

› **GEOMAR Helmholtz Centre for Ocean Research Kiel**

[www.geomar.de](http://www.geomar.de)

Kieler Wirkstoff-Zentrum: Biological active substances from marine microorganisms for application in the field of human and animal health, plant protection, cosmetics and neutraceuticals

› **Fraunhofer Research Institution for Marine Biotechnology**

[www.emb.fraunhofer.de/en](http://www.emb.fraunhofer.de/en)

Aquatic cell culture and aquaculture

**Business in total: 26**



**Products & Services**

› **Sea & Sun Technology GmbH**

[www.sea-sun-tech.com](http://www.sea-sun-tech.com)

Cultivation of microalgae for different applications

› **Coastal Research & Management / oceanBASIS**

[www.crm-online.de](http://www.crm-online.de) / [www.oceanbasis.de](http://www.oceanbasis.de)

Research in the field of biological active substances from marine macro-organisms. Production of marine cosmetics.

# Masterplan Marine Biotechnology Schleswig-Holstein SWOT Analysis

## Strengths

- strong academic expertise (GEOMAR, EMB, cluster of excellence “Future Ocean”)
- existing technological equipment
- location between two seas
- living networks

## Weaknesses

- short-term funding
- only little cooperation between research and industry
- scarcity of financial resources and stakeholders

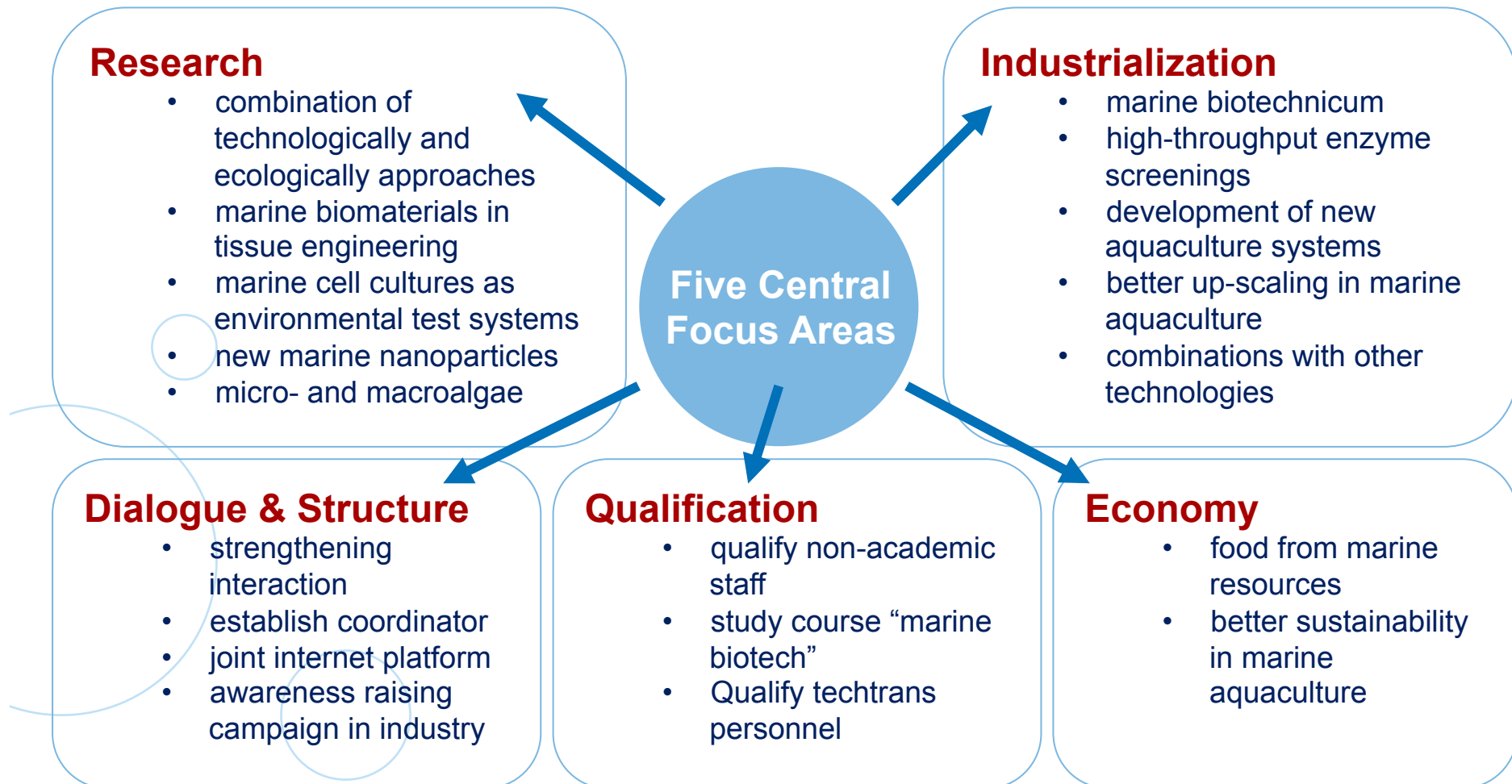
## Opportunities

- Increased use of renewable resources and alternative technologies
- Participation in ERA-NET Marine Biotech

## Threats

- strategic changes in research institutions
- low risk-taking of investors
- no or only little focus on “strong” topics

# Masterplan Marine Biotechnology Schleswig-Holstein Focus Areas



# Masterplan Marine Biotechnology Schleswig-Holstein Implementation

- Schleswig-Holstein's government (cabinet) agreed to the master plan, 2/2013
- Regional innovation strategy
- Working group consisting of members of "Sea Our Future" and experts in the field
- Public presentation and discussion in Kiel, May 24, 2013



## Implementation concept:

(scheduled for October 2013)

- Networking
- Financial resources
- Coordinator
- Attract private capital
- ...

# Thank you!!!

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