



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



A Regional Development Strategy for

Marine Biotechnology in Schleswig-Holstein

Steffen Lüsse
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EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION



Baltic Sea Region
Programme 2007-2013

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



- Total Area: 15.799 km²
- 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



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”
- pool and coordinate maritime activities in Schleswig-Holstein’s government
- Concentrate on maritime competences
 - create of networks and clusters
 - support innovation and ideas
 - strengthen maritime economy
 - maritime model region
 - Maritime Action Plan





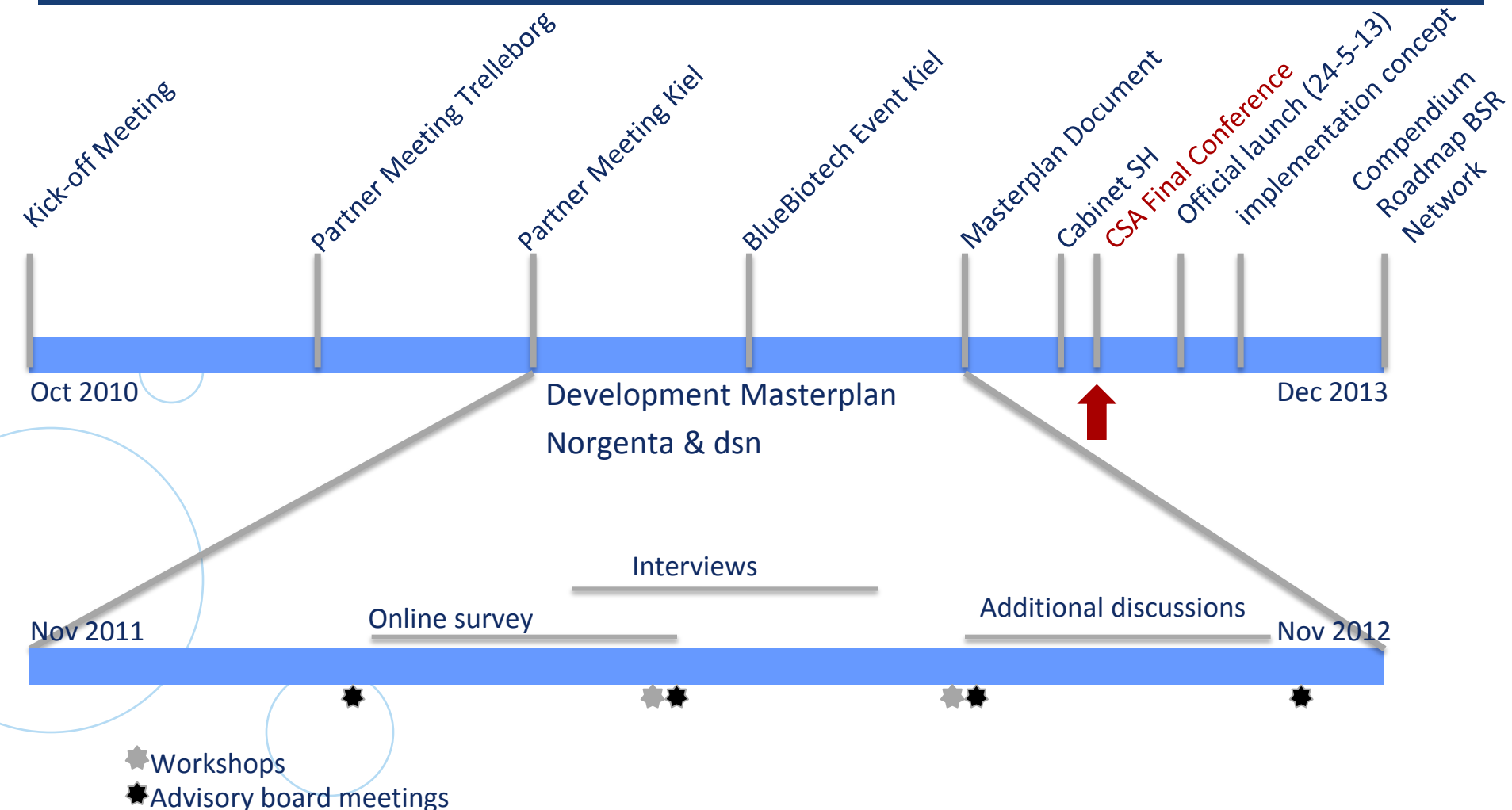
- Responsible within SUBMARINER: Norgenta
- Cluster “Life Science Nord” for MedTec, Pharma and Biotech
- Focus topics within Biotech:
Drug research, molecular diagnostics, cell technologies
and **marine biotechnology**



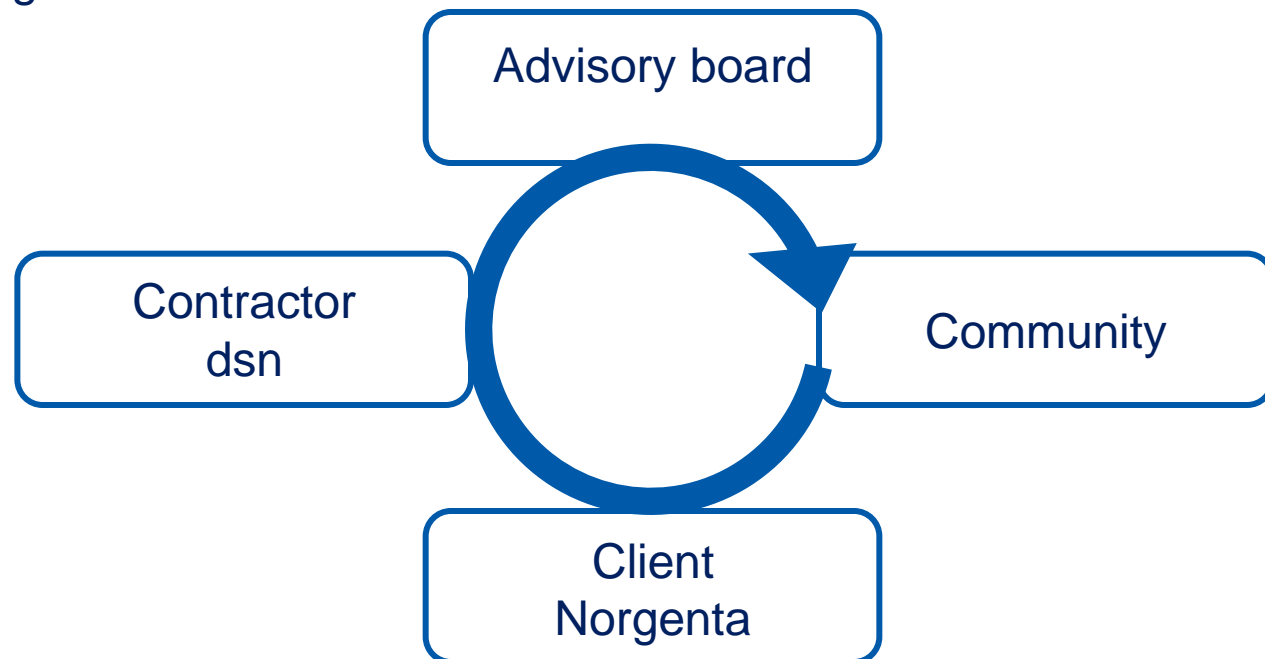
- Agency in charge for the Masterplan: dsn
- Status analysis of companies, research institutions and further stakeholders
- Determination of trends, needs and potential uses
- Highlight strengths, weaknesses, opportunities and threats
- Recommendations and proposals for projects

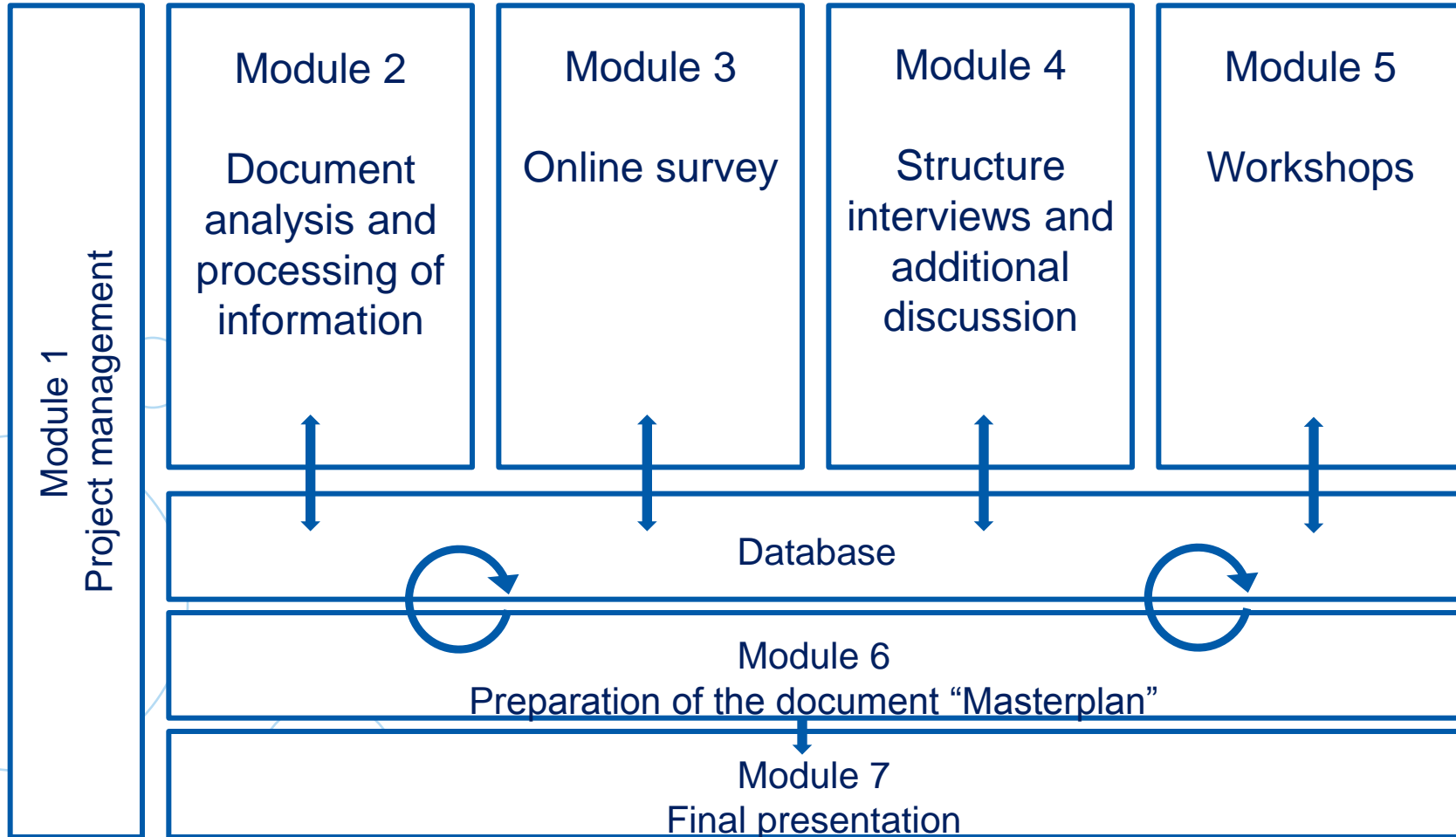


Masterplan Marine Biotechnology Schleswig-Holstein Time schedule



- Establishment of an advisory board consisting of representatives from economic (big company: DuPont & SME: CRM), politic (federal: BMWi & regional: MWAVT), partner cluster organization (BioCon Valley), science (director GEOMAR, director EMB)
- 4 advisory board meetings







Research institutions in total: 22 Basic & Applied Science

➤ GEOMAR Helmholtz Centre for Ocean Research Kiel

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

Aquatic cell culture and aquaculture

Business in total: 26 Products & Services

➤ Sea & Sun Technology GmbH

www.sea-sun-tech.com

Cultivation of microalgae for different applications

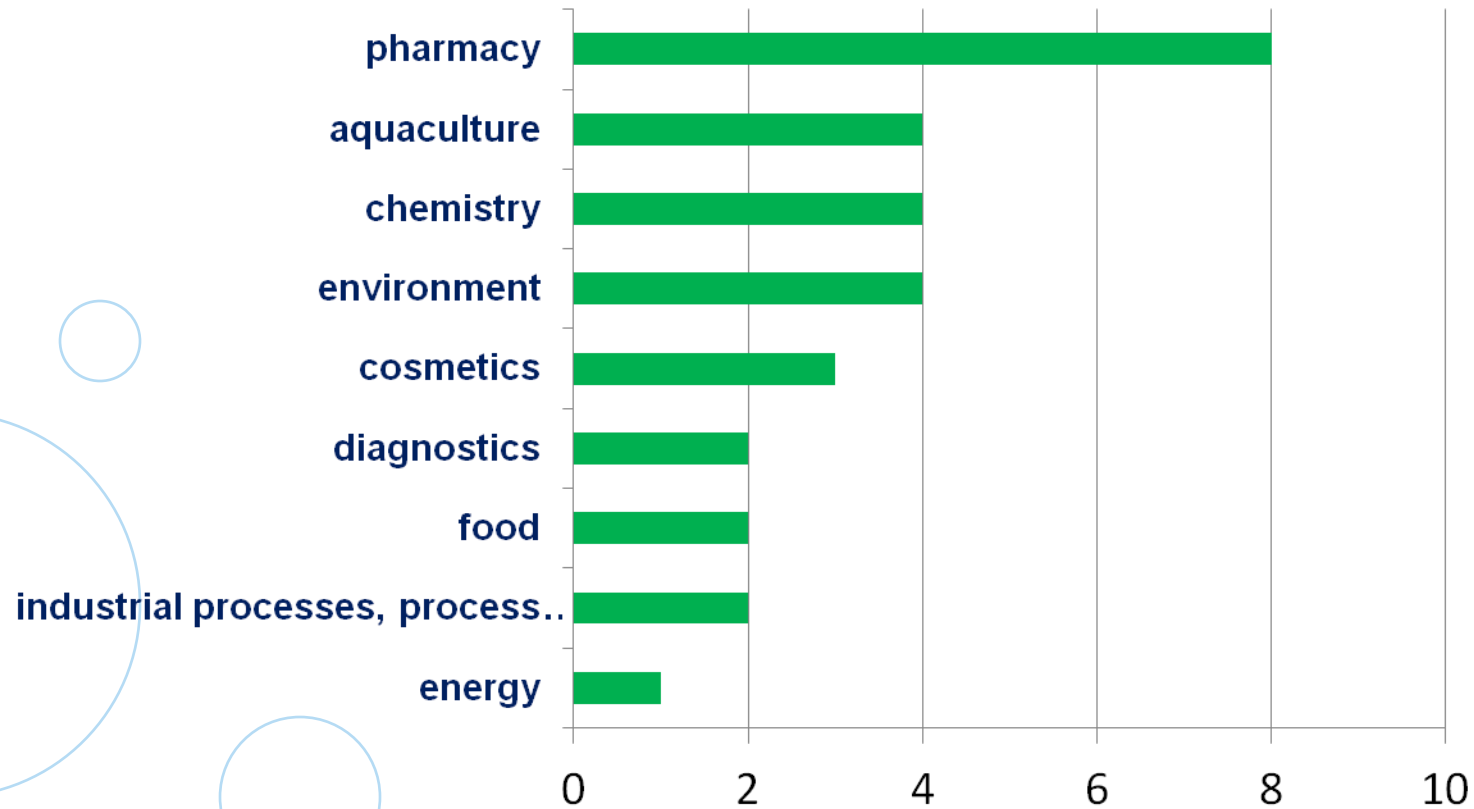
➤ Coastal Research & Management / oceanBASIS

www.crm-online.de / www.oceanbasis.de

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

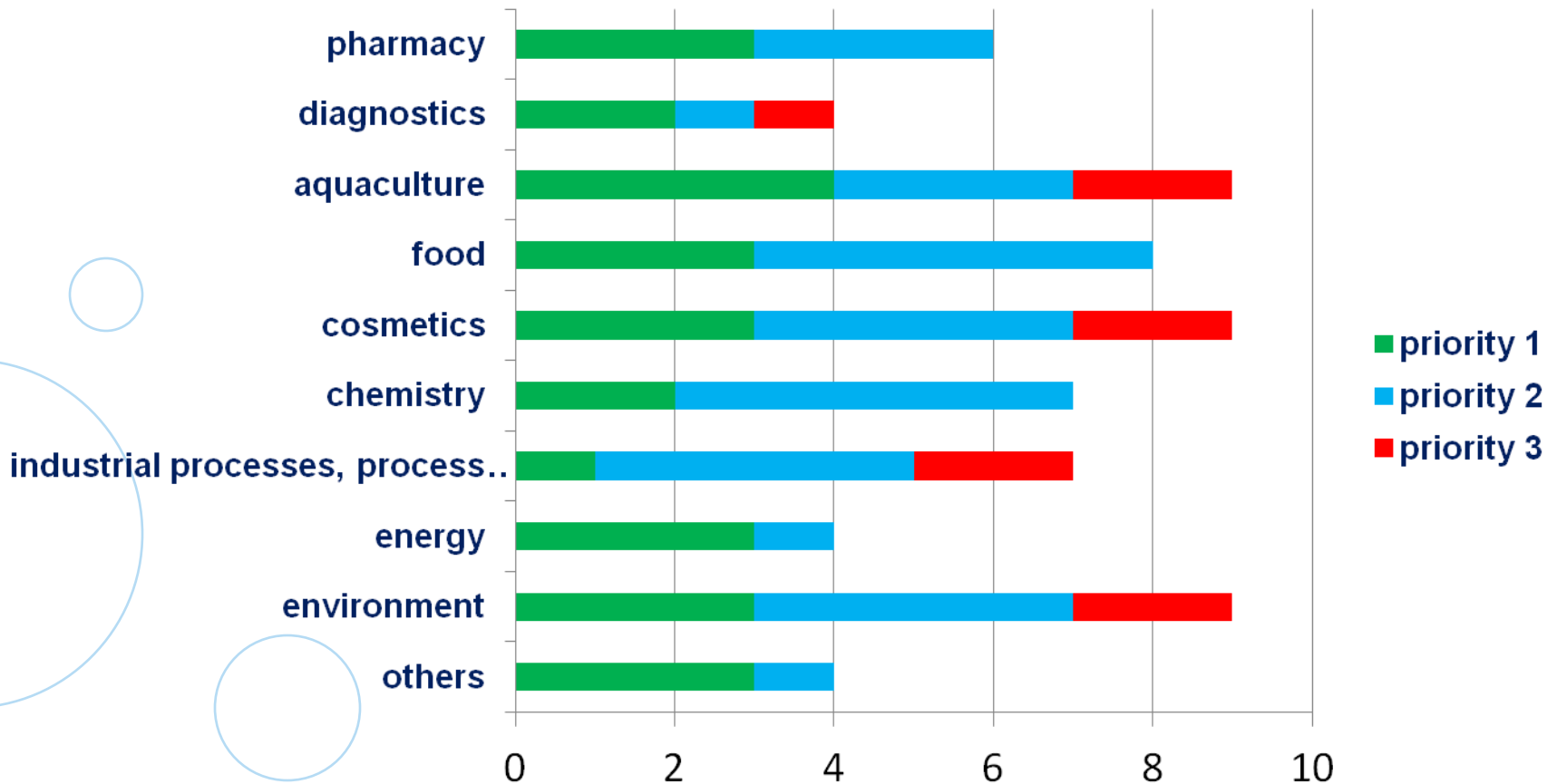
Research institution scope of activities

n=11
multiple answers possible



Business scope of activities

n=16
multiple answers possible



SWOT

Workshops, Interviews, Earlier Studies

Some Examples

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 objective



The Masterplan identifies opportunities for a **strategic development** of marine biotechnology in Schleswig-Holstein.

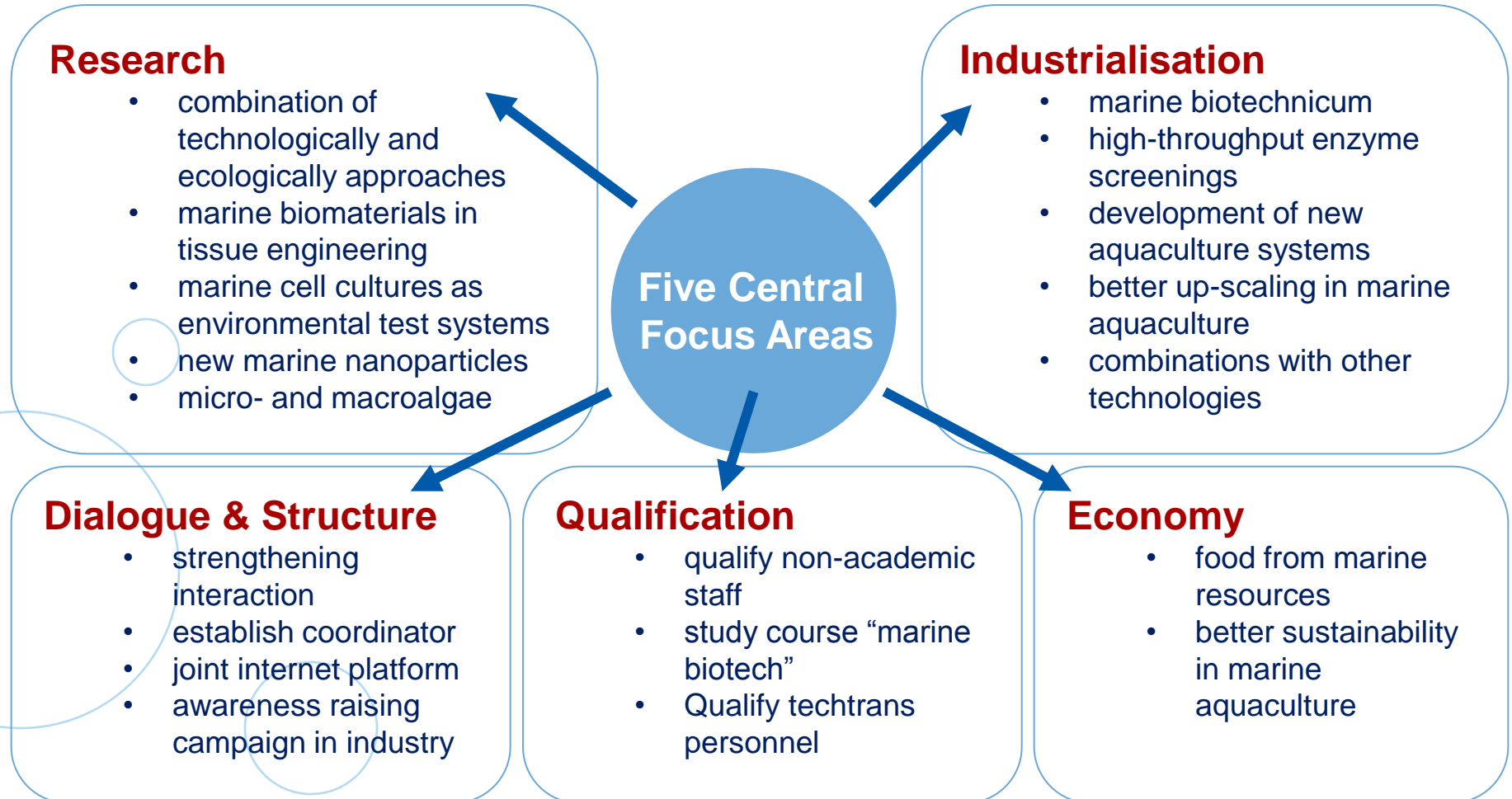
Promising **potentials** should be used
to foster **growth** and **employment**
in a **sustainable** way
by systematic **transfer** of technology and know-how.



Until **2030** Schleswig-Holstein will generate **similar** amounts of added value through **marine biotechnology** as through **conventional agriculture**.

With the development and implementation of **sustainable technologies** and the use of **marine resources**, marine biotechnology will make a significant contribution to a **resource-protecting use** of environmental resources, to **CO₂-neutral energy production** as well as to **human health and well-being**.

“Actual” Masterplan Proposed Activities some examples



- Schleswig-Holstein’s government (cabinet) agreed to the masterplan, 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:

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

Thank you!



www.submariner-project.eu

steffen.luesse@wimi.landsh.de