



STATE OF THE
BALTIC SEA
- HOLISTIC ASSESSMENT -



Regional Economic and Social Analyses

Joint HELCOM - BONUS BALTICAPP workshop
on the ecological-economic research
to support marine policy implementation in the Baltic Sea region
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HELCOM

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Outline

- Background
- What has been done?
- What will be done in 2017-2018?
- What next?



Background

- 2013 HELCOM Ministerial meeting
 - “...to initiate or intensify the work to attribute economic value to marine and coastal ecosystem services and their contribution to societal, cultural and ecological well-being...”
 - “...to incorporate the emerging environmental economics knowledge as well as socio-economic analysis in the work of HELCOM...”
 - “...cooperate with institutions having leading expertise on economic and social analysis of the use of the Baltic Sea and of the cost of degradation of the marine environment...”

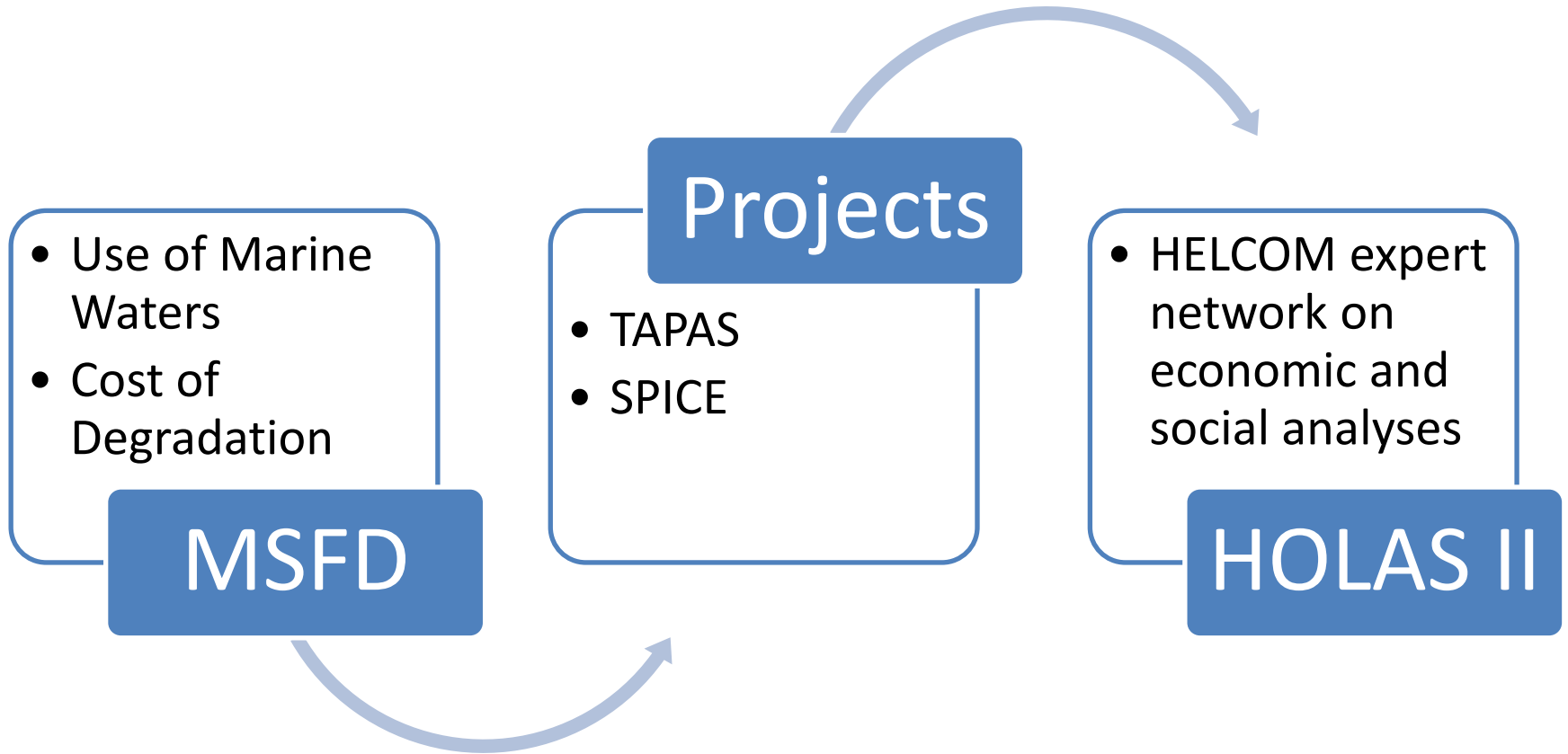


Background

- Strategic approach of HELCOM to align the implementation of the HELCOM BSAP, the EU MSFD and the Maritime Doctrine of the Russian Federation
- HELCOM HOLAS II – MSFD reporting 2018
- MSFD Articles 8, 13, 14 call for economic analyses



Our approach for regional ESA



Steps taken so far

HOLAS ESA WS
1

- Conceptual model for regional ESA
- Approaches and data

TAPAS
WS1 & WS2

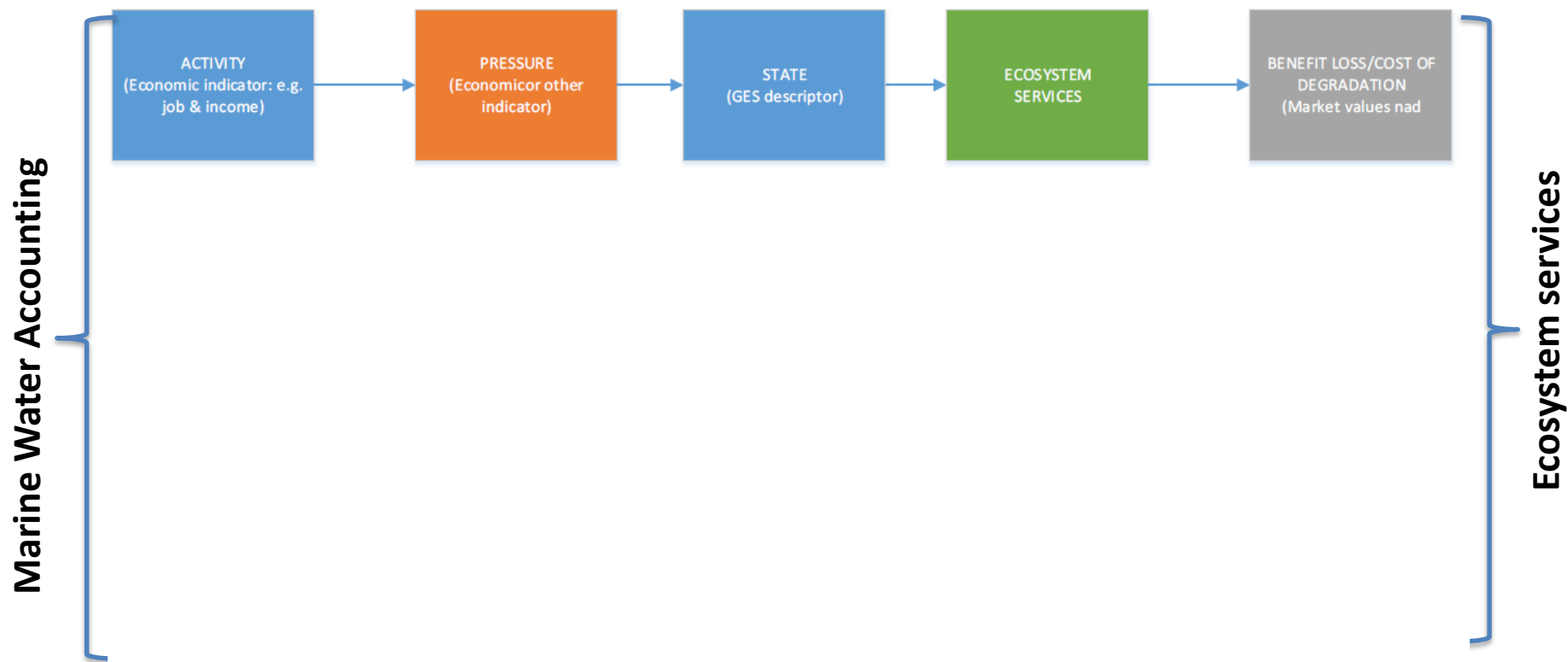
- Use of Marine Waters
- Cost of Degradation

HOLAS ESA WS
2

- Results to be included in the HOLAS II



Marine Water Accounting + Ecosystem services + DPSIR = Concept for HOLAS II ESA

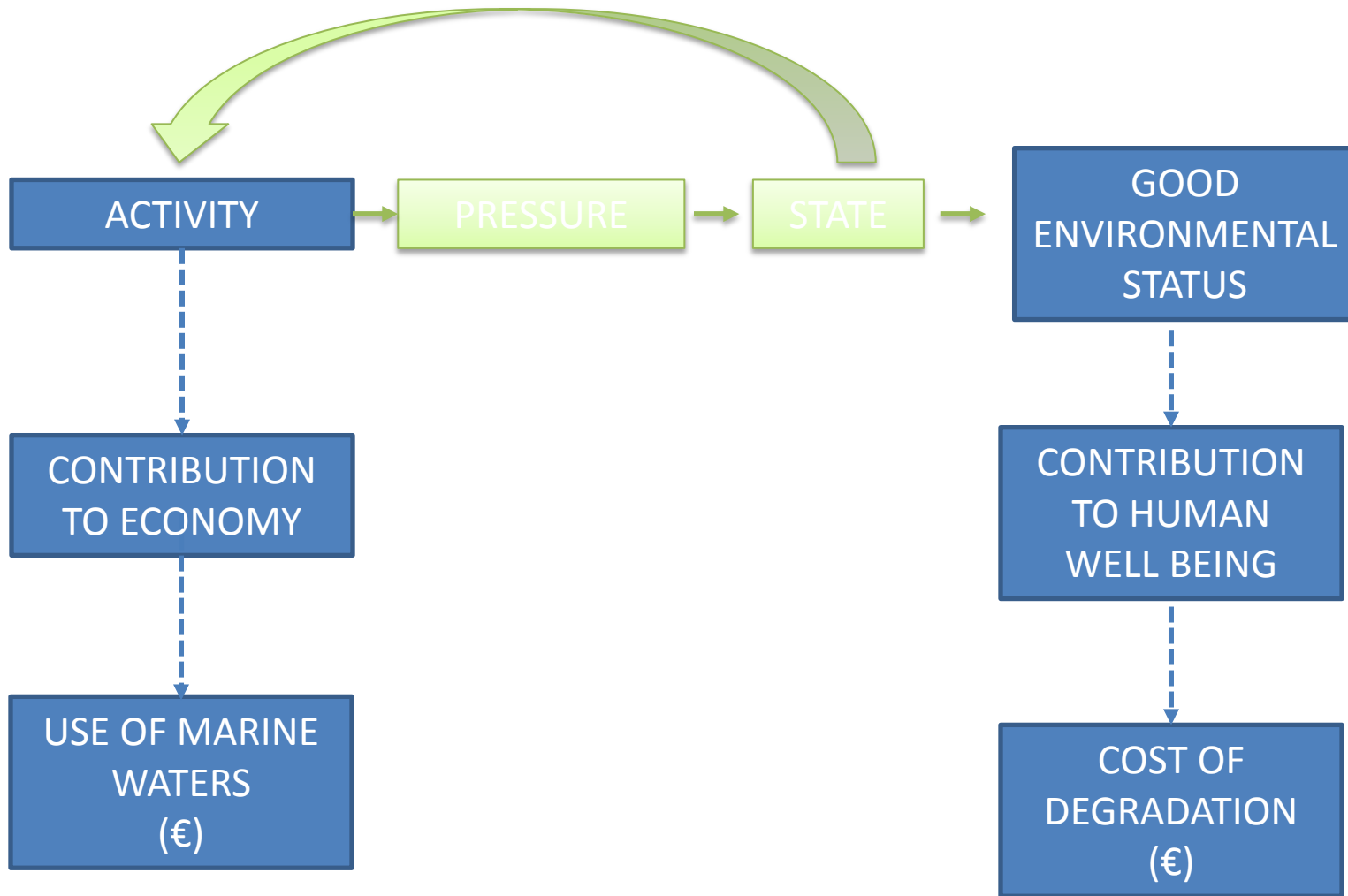


Challenges in the operationalization of the concept

- In HOLAS II biodiversity is assessed against GES using core indicators (S-assessment)
- Pressure and impact is assessed against environmental targets (P-I assessment)
- ESA would need solid and causal PSI model
 - ESA is not integrated with the other parts of the HOLAS II assessment
- Ecosystem services data?



HOLAS ESA concept in practice



Use of Marine Water Analysis

Contribution of selected **activities**
on regional and national economies

APPROACHES

- 1) Marine water accounts
- 2) Ecosystem services

ACTIVITIES & SERVICES

- 1) Fish and shellfish
harvesting
- 2) Aquaculture
- 3) Tourism and leisure
- 4) Energy production
- 5) Transport

MAIN INDICATORS

- 1) Gross value added
- 2) Employment
- 3) Consumer surplus



Lessons learnt from the regional use of marine waters analysis

- Harmonized data and terminology across countries and statistics are needed to obtain comparable information across countries for the entire marine region
- National data related to marine uses and activities needs to be reported separately for each regional sea
- Refined definition of the coastline should be agreed upon
- Development and application of environmental economic accounts and ecosystem services accounts would facilitate the analysis and link the marine protection issues with wider context



Cost of Degradation Analysis

Contribution of the **good environmental status** on citizens' well-being

APPROACHES

- 1) Thematic
- 2) Ecosystem services

THEMES & SERVICES

- 1) Eutrophication
- 2) Recreation

INDICATORS

- 1) Willingness to pay
- 2) Consumer surplus



Lessons learnt from the cost of degradation analysis

- Estimates can be used to illustrate what is at stake if the state of the Baltic Sea does not improve with regard to eutrophication and environmental quality related to recreation
- Results based on existing peer reviewed studies and thematic and ecosystem services approaches – results must be used separately
- International valuation studies preferably – value transfer approach possible



A. CONCEPTUAL MODEL



B. USE OF MARINE WATERS ANALYSIS

Contribution of selected **activities** on regional and national economies

APPROACHES

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ACTIVITIES & SERVICES

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- 2) Aquaculture
- 3) Tourism and leisure
- 4) Energy production
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MAIN INDICATORS

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C. COST OF DEGRADATION ANALYSIS

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The HOLAS II assessment

- Summary report released in June 2017 "State of the Baltic Sea"
- Consultation in 2017 and final version in June 2018
- Main content chapters:
 - Human activities and the environment
 - Including use of marine waters analysis
 - Pressures on the Baltic Sea
 - Including cost of degradation analysis
 - Biodiversity and food webs
 - Cumulative impacts and trends in the marine environment

Roadmap for further economic and social analyses

First steps

1. Develop and agree on common principles for the regional ESA
2. Work with the statistical agencies to provide data in standard format
3. Develop a common understanding on baseline
4. Establish team with pressure-impact researchers and ESA network
5. Engage with different BONUS projects

Longer term

6. Investigate the possibilities to conduct regionally coordinated valuation studies
7. Conduct cost-effectiveness analysis of measures to improve the marine environment
8. Conduct cost-benefit analysis for selected descriptors/themes



Thank you!

