

From MARine Ecosystem Accounting to integrated governance for sustainable planning of marine and coastal areas

Susanna Jernberg
MAREA final seminar
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Photo: Mats Westerborn

Project details

Duration: 6/2020 – 12/2022

Funded by: Interreg Central Baltic

Total budget: 1 515 601.45 €

**Partners: Finnish Environment institute SYKE,
University of Tartu,
Pellervo Economic Research,
Baltic Environmental Forum Latvia**

Challenge: integration of ecological system with social-economic system

Ecosystem approach

Information is required from:

- ecosystem state
- the supply and use of ecosystem services
- human activities, their pressures and effects on ecosystems and services
- Integration of this knowledge



Photo:Jan-Erik Bruun

Project overall goal

- To provide a framework that integrates marine ecosystems with the socio-economic system and the concept of environmental accounting.
- Enables analysis of human impacts on marine environment and its services.
- Promotes sustainable use of marine areas.

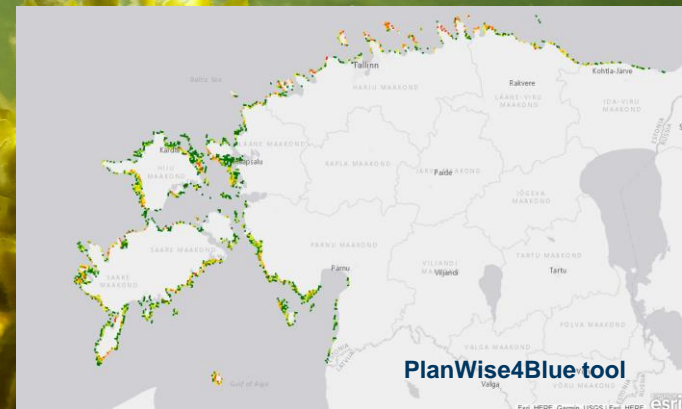
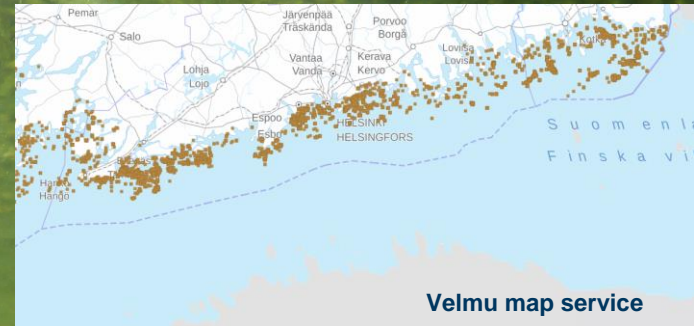
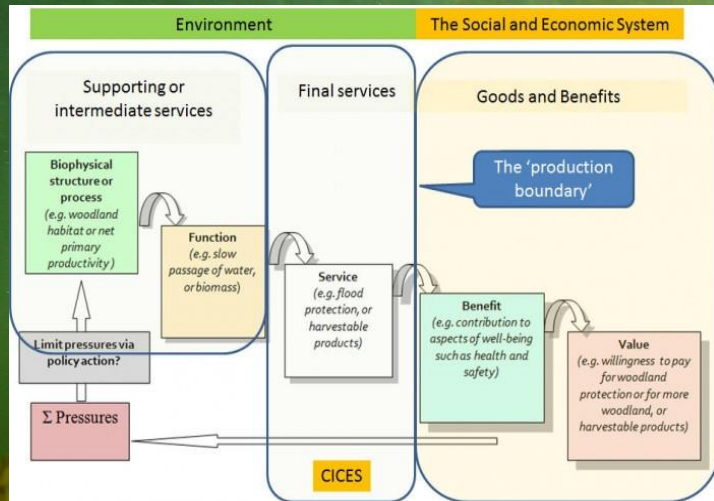
Project pilot areas: Gulf of Finland & Gulf of Riga



Map: NormanEinstein, CC BY-SA 3.0 <<http://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons

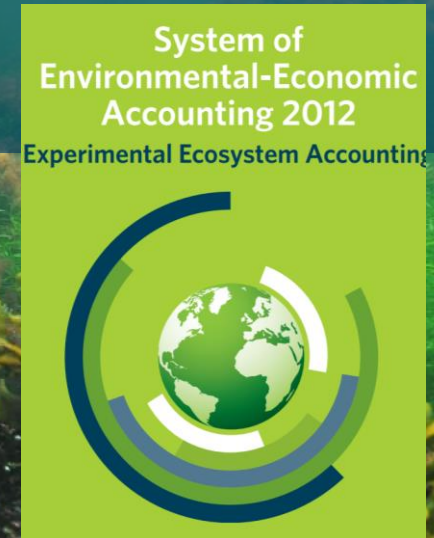
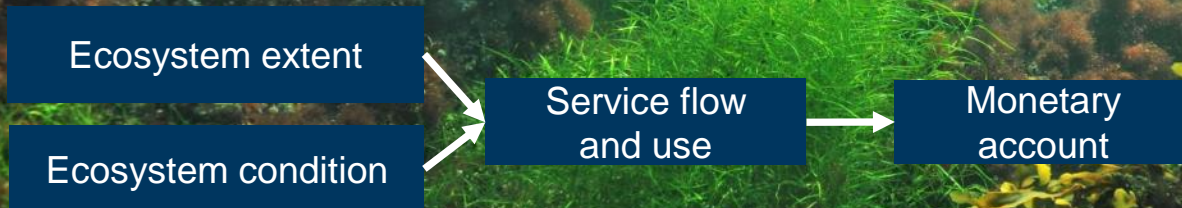
First step: Developing ecosystem service mapping and modelling in marine realm

Potschin, M. and R. Haines-Young (2011):



Second step: Developing concepts of ecosystem accounting framework in the Baltic Sea environment

Develop the Natural Capital Accounting concept in the pilot areas by linking the maps of ecosystem services developed with already existing data sources on relevant economic sectors



Third step: Creating sustainability compass towards sustainable development goals

Indicator-based assessment tool for evaluating the sustainability of different marine sectors

UN statistical body agrees to global indicators to measure sustainable development goals



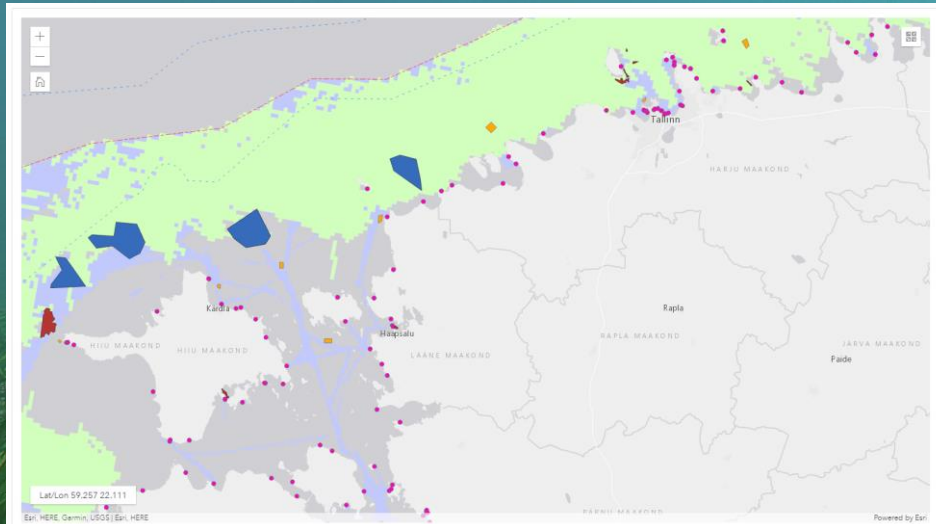
SUSTAINABLE DEVELOPMENT GOALS



Source: UN in collaboration with Project Everyone

Fourth step: Building a synthetic decision-support geoportal for sustainable maritime planning in pilot areas

<http://www.sea.ee/planwise4blue>



Input Layers

- Administrative boundaries
- Human activities
 - Windpark areas [2]
 - Dredging and dumping areas [1]
 - Extraction of minerals [14]
 - Harbours [8]
 - Commercial fishing [6]
 - Shipping intensity [4]
- Nature values
- Current environmental condition
- Future climate change

Workspaces

Seminar talks

DAY 1

Louise Forsblom: **Next generation of ecosystem service maps, can we reach flow?**

Francisco R. Barboza: **Main modelling outcomes and future directions**

Agnese Reķe: **Mapping cultural ecosystem services in Latvia and Estonia**

DAY 1

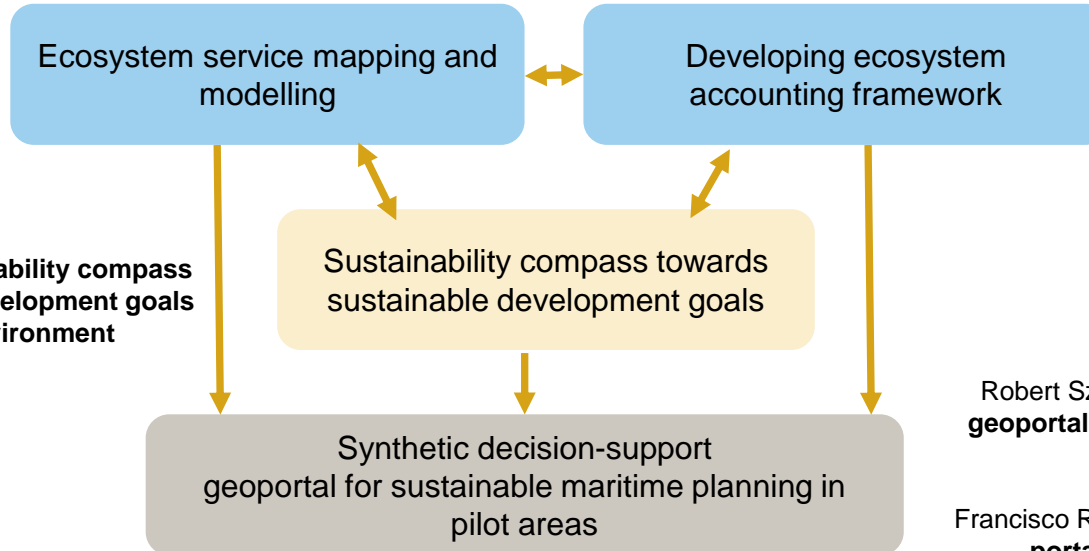
Tin-Yu Lai: **Conceptual model of Natural Capital Accounting with an example of blue carbon application**

Liisa Saikkonen: **Perceived vs actual/modelled environment and implications on cultural ecosystem services**

Tommi Tikkanen: **Marine recreation and other cultural services in Finland, Estonia, Latvia– results of the survey**

DAY 2

Maurizio Sajeve: **Sustainability compass towards sustainable development goals for the marine environment**



DAY 2

Robert Szava-Kovats: **PlanWise4Blue geoportal – visualization and practical applications**

Francisco R. Barboza: **Joint testing of the portal and active discussion**

Project communication outputs: policy briefs

MAREA POLICY BRIEF I / 2022

Ecosystem Services in Maritime Spatial Planning



MAREA POLICY BRIEF II / 2022

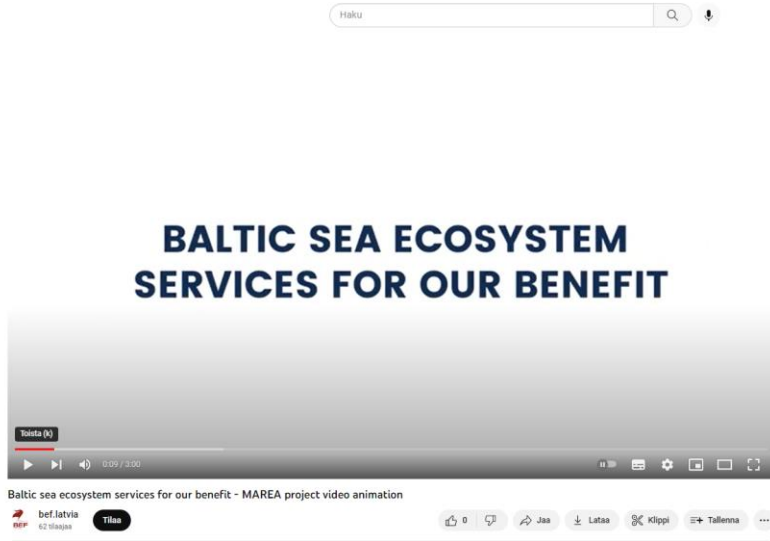
PlanWise4Blue geoportal for sustainable maritime spatial planning

The PlanWise4Blue (PW4B) Geoportal is a decision support tool aiming to maintain the sustainable management of common natural resources in the Baltic Sea region.



<http://marea.balticseaportal.net/>

Project communication outputs: video



Available in channel: [bef.latvia](https://www.youtube.com/channel/bef.latvia)

Thank you!

susanna.jernberg@syke.fi

Twitter: @MAREA_CB

<http://marea.balticseaportal.net/>



Photo: Juuso Haapaniemi / MH



EUROPEAN UNION
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