



# Dilemma of the decision-makers and how to translate science into policy

## PROJECT NEWSLETTER 1/2020

BONUS MARES (Multi-method Assessment for Resilient Ecosystem Services and Human Nature System Integration) is an EU-funded research project that studies how ecosystems and the benefits they provide (goods and services) link to human lifestyles and well-being.

BONUS MARES realises a robust analysis of knowledge transfer and interaction between science and policy about the goods and services provided by the Baltic Sea ecosystems.

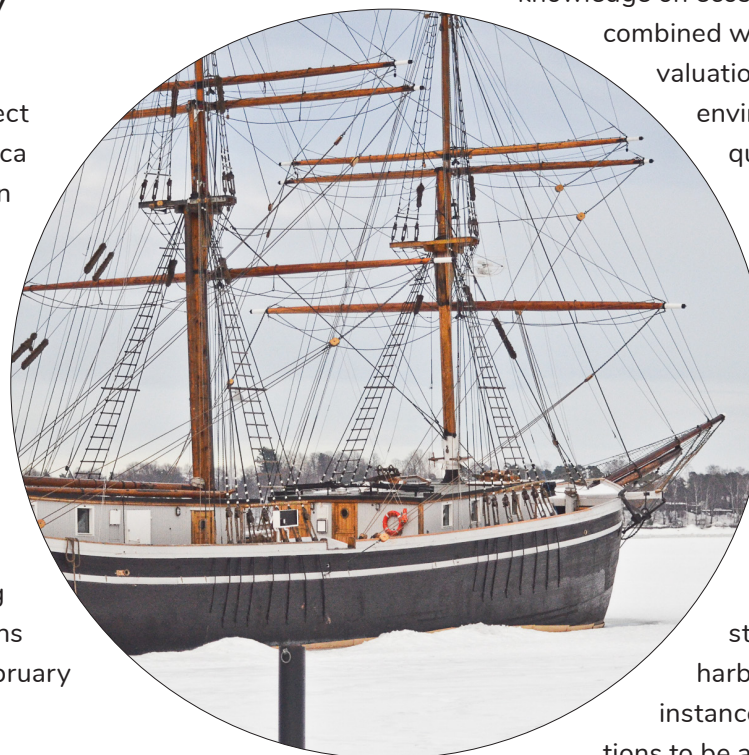
### Research partners:



### Interdisciplinary understanding

BONUS MARES project was happy to host circa 30 attendees from ten different countries around the Baltic Sea and beyond in the final workshop in Finland. Suomenlinna – the ancient fortress in an island at the coast of Helsinki served as an inspiring location for discussions on the 13th -14th February 2020.

The overarching purpose of the MARES project is to increase understanding between different disciplines. How can environmental



knowledge on ecosystem services be combined with socioeconomic valuation methods on marine environment? That was the question for the multidisciplinary group consisting of researchers, entrepreneurs and NGOs to solve.

### Imagine a harbour...

Imagine that you are in the position of deciding on large construction projects say, a harbour or wind park, for instance – what are the questions to be asked and where to find the answers? A role play in small groups demonstrated well the complexity of issues to be considered in planning.

## Translating science into policy making

It is not only about increasing knowledge - and especially the gaps there, but about bringing that knowledge and understanding visible to people

- to scientists themselves but also to decision makers who constantly take stands on varying types of planned construction works and investments.

Knowledge brings evidence to decision making processes, but often some effort is needed to translate research findings into a suitable form to serve policy making.

BONUS MARES has put a major effort in creating a tool that visualizes information on ecosystem services and their valuation methods on different geographic locations in the Baltic Sea.

A very much expected moment came on the second day of the workshop when groups had a chance to get familiar with the online system. "This portal is a kind of a translation service

between science and policy making", researcher **Jonne Kotta** from the Estonian Marine Institute presented. "There is loads of information, but we do not always know how to use it. This portal shows where and which type of knowledge we have at hand."

### Did you know?

We have loads of quantitative information about services generated by ecosystems in the Baltic Sea, but how that translates into socioeconomic benefits and well-being, remains still a question for further investigation.

This was the finding of the extensive literature review by BONUS MARES - [Check out the brief VIDEO CLIP by Holger Jänes.](#)

[The EcoGAME matrix](#) could serve as a suitable framework for further analyses.

For the geo-portal system to function well, it requires inputs from researchers who have information on different types of ecosystem services and their valuation methods on different locations.

All are welcomed to insert their data into the system. It is a continuing process and little by little it starts to serve as a knowledge base, one day guiding the decisions taken on marine and terrestrial investments around and in the Baltic Sea.

After testing the portal, the groups shared their experiences and valuable comments for developing it further. The challenge now is to operationalize the translation service and once done, spread the word about the tool among stakeholders along the coastline of the Baltic Sea.



### Views of Meelis Sirendi, Deputy Executive Director in the BONUS Secretariat

"In this workshop, I became more convinced that the matters we are dealing with are complex. People presented differing views even in group discussions – what about in the real life?

I am impressed by the good representation of countries and different fields in this workshop. Often, the projects have invited participants only from partners' home countries.

As a message to the Mares project, I would like to emphasize that you need to inform broadly about your results. Do it using an understandable language. Make sure that your publications reach out to your target groups."



## Decision makers' dilemma: How to ask the right questions?

A most interesting discussion was held by one of the working groups of the Bonus Mares project workshop. The group performed a role play in which one of the participants was an economist, another an ecologist, third a human scientist and fourth a decision maker, largely ignorant on ecosystems and their services.

A plan of constructing a wind park near Turku had been made and four alternative locations based on their physical suitability identified. To decide between the alternatives, the decision maker needed to obtain more information on potentially affected marine ecosystems and other impacts of the project, including their monetary and non-monetary valuation.

The experts discussed and compared different methods for better understanding various val-

ues related to ecosystems, birds, livelihoods, human wellbeing and health, and properties that could be affected by the wind park. Conducting all studies and impact assessments would take at least two years, they claimed.

On the other hand, the company interested in proceeding with the wind park construction puts constant pressure on the City Council. Therefore, the decision maker asked the experts to speed up, collaborate more and integrate and sequence their studies in such a way that one part benefits the other.

Moreover, the decision maker reminded the experts of presenting their pros and cons of each of the possible wind park sites in an understandable manner, using layman's language. This was considered as a challenge. The session ended with the experts trying to identify entry points for a multi-disciplinary assessment.





## Know your scientist - introducing Marjo, Thorsten and Paula

**To make our research more accessible and give further insight into the project, we asked a couple of our researchers some profound questions about their work and motivations - let's hear their answers!**

"Why did you choose this line of work - what drives you, what do you aspire to achieve? What is your role in BONUS MARES?"

### **Thorsten Reusch**

Marine Ecologist

Helmholtz Centre for Ocean Research Kiel

I am a marine ecologist and evolutionary biologist working as full professor at GEOMAR, the major ocean institute in Germany, located in Kiel at the Baltic Sea shore. Together with colleagues, I am coordinating work package 2 of the MARES project dealing with a "Review of Ecosystem Services".

I am generally very interested in how global change plays out in the Baltic Sea and how this endangers the many ecosystem services provided by Baltic Sea ecosystems. My favorite system are seagrass beds that have

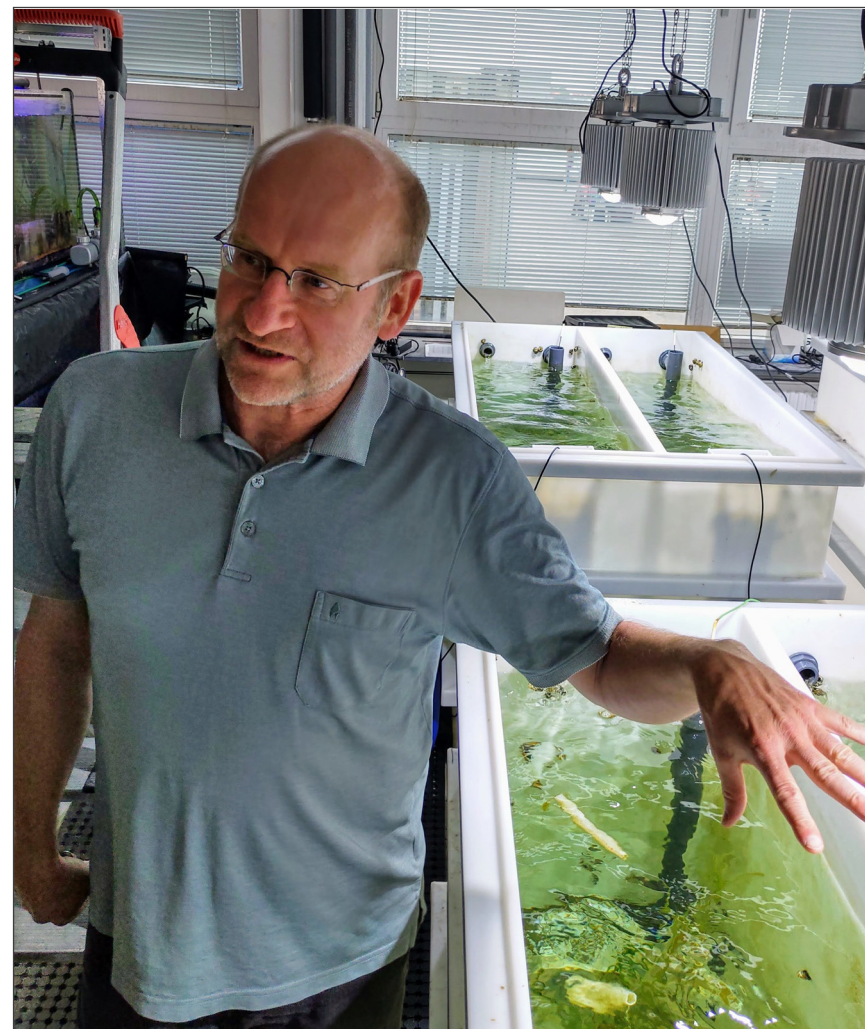
recently come into the focus as possibly very important carbon sinks.

Within MARES, along with Melanie Heckwolf, we are performing a meta-analysis of all studies dealing with ecosystem services in the Baltic Sea provided by our target ecosystems; macroalgal beds, seagrass meadows and mussel banks.

I can tell you already that we found very few studies that thoroughly evaluated ecosystem services and even fewer trying to quantify particular services, so the knowledge gap is large.

The ocean at our doorstep provides so many open questions that it became one of my research foci. During my career I also find it more and more important to communicate with the public and with stakeholders, and here the questions come from the vicinity of our institute, not from places far away.

Yet at the same time, our results are significant for



Marine ecologist Thorsten Reusch

example for the South China Sea as the pressures such as eutrophication and overfishing are the same. My intention is to provide the scientific basis for fact-based management.

## Marjo Maidell

Forest Economist

Pellervo Economic Research PTT

I work as a forest economist at PTT. I've worked in different parts of the forest sector during the last 10 years, both in public and private sector. MARES has been an exciting jump to marine sciences and I've been involved in reporting, organization of workshops and development and testing of the geo-portal.

In MARES, my next tasks involve reporting and drafting a manuscript on the

purpose, implementation and further development of the geo-portal.

In forest sciences I'm most interested in bridging economics and environmental sciences to improve the sustainable management of natural resources.

These same topics also apply to marine sciences. Ways to support this are countless of course, but currently I'm keen to study more how GIS-based solutions could bring innovative tools for spreading information and balancing the use and conservation of natural resources.



Forest economist Marjo Maidell

## Paula Horne

Research Director

Pellervo Economic Research PTT

I am a Finnish nature-enthusiast, an economist and a research director at PTT. In MARES I work on the valuation of ecosystem services, learning a lot from the collaboration with our colleagues of natural sciences.

As a research director my time is divided between administrative work and research. In MARES we are now preparing

a report of valuation methods and contributing to a manuscript on Baltic Sea ecosystem services.

Environmental economics and valuation particularly seemed as a natural choice, given my interest in nature, but also in people's behaviour. Microeconomic choice theory aims at understanding human behaviour with regard to decision making.

Better informed decision-making regarding ecosystem services would benefit both nature and the humankind.



Research director Paula Horne