

Introduction

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www.baltcoast.net

**A SYSTEM APPROACH FRAMEWORK FOR
COASTAL RESEARCH & MANAGEMENT**



Klaipėda university

- Klaipėda University, as the main developer and consolidator of scientific potential, resources and open access research infrastructure in Lithuania in the fields of **marine environment** and **marine technologies**



Marine Valley is recently established for integrated development of Marine science, studies and business.



Klaipėda university

- Faculty of **Humanities and Education Sciences**
- Faculty of **Marine Technologies and Natural Sciences**
- Academy of **Arts**
- Faculty of **Social Sciences**
- Faculty of **Health Sciences**
- Institute of Continuous Studies
- Open Access Centre for Marine Research
- Marine Science and Technology Center
- Institute of Baltic Sea Region History and Archeology



Research focus

Environment

- Marine Biogeochemistry
- Marine conservation & management
- Non-indigenous species & ecological genetics
- Seabed ecology
- Remote sensing & physical oceanography
- Integrated coastal zone management
- Hydrodynamic modelling

Technologies

- Marine Constructions Reliability
- Waterborne Transport Technologies
- Fleet and Field Research
- Intelligent transportation systems

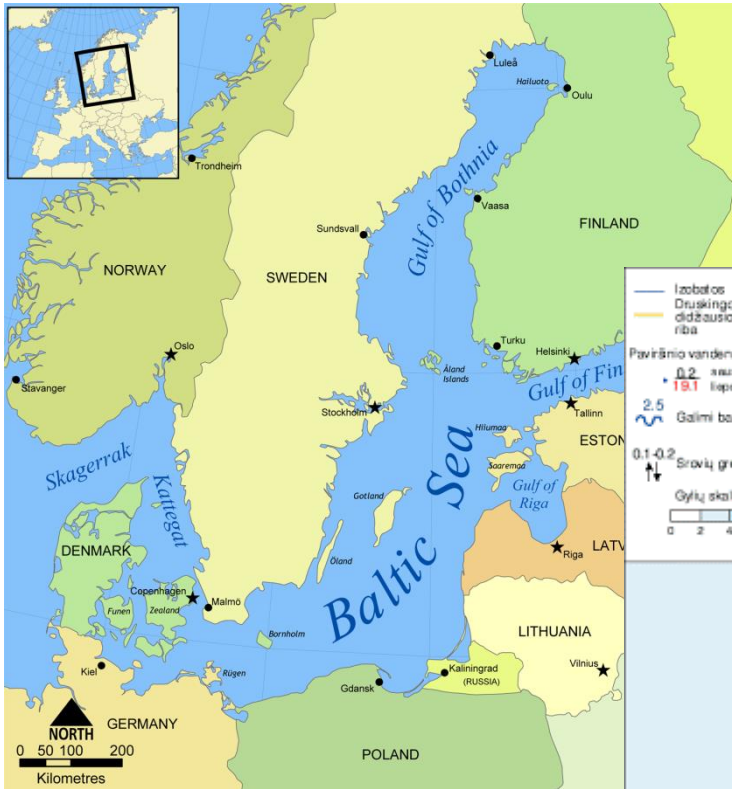


PROJECTS

- BALMAN - Development of the ships' ballast water management system to reduce biological invasions
- BIO-C3 - Biodiversity changes - causes, consequences and management implications (BONUS)
- MAURAKUMA - Distribution of Charophyta in the Curonian Lagoon and impact of environmental factors (NATIONAL)
- COST ALIENS - European Information System for Alien Species (COST)
- DEVOTES - Development of innovative tools for understanding marine biodiversity and assessing good environmental status (European Commission, 7 BP)
- COCOA - Nutrient cocktail in coastal zones of the Baltic Sea – *improving* understanding of the transformation and retention of nutrients and organic matter in the coastal zone (BONUS)



➤ Research focus (Curonian lagoon, Nemunas Delta and Baltic Sea)





BaltCoast project

BONUS 2010-2017: The joint Baltic Sea research and development programme
(co-funded by EU and related to EU Horizon 2020)
Call 2014: Sustainable ecosystem services



**A Systems Approach Framework for Coastal Research
and Management in the Baltic**

Key theme addressed:

2.3. Integrated approaches to coastal management

Subthemes:

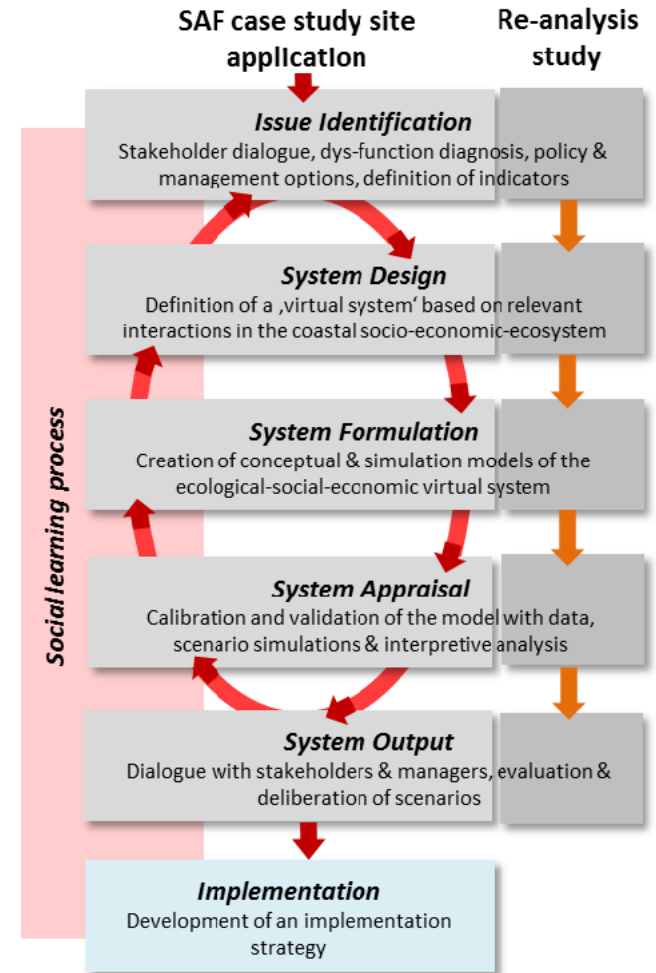
- 4.3. Maritime spatial planning from local to Baltic Sea region scale
- 4.2. Linking ecosystem goods and services to human lifestyles and well-being
- 4.1. Governance structures, policy performance and policy instruments

Duration: 3 years, April 2015 – March 2018



BaltCoast project

- The Ecological Social Economic Assessment within the Systems Approach Framework (SAF) and its application in BaltCoast





BaltCoast project

➤ **Project coordinator:**

#1 Leibniz Institute for Baltic Sea Research, Germany (IOW); Gerald Schernewski

➤ **Project participants:**

#2 DTU-Aqua, Denmark (DTU);

#3 Marine Science & Technology Center, Klaipeda University, Lithuania (KU);

#4 Institute of Ecology, Tallinn University, Estonia (TU);

#5 UNESCO Chair in Sustainable Coastal Development, Faculty of Geography and Earth Sciences, University of Latvia (UL);

#6 Institute of Hydroengineering, Polish Academy of Sciences, Gdansk, Poland (IBW);

#7 Swedish University of Agricultural Sciences, Depart. of Economics, Uppsala, Sweden (SLU);

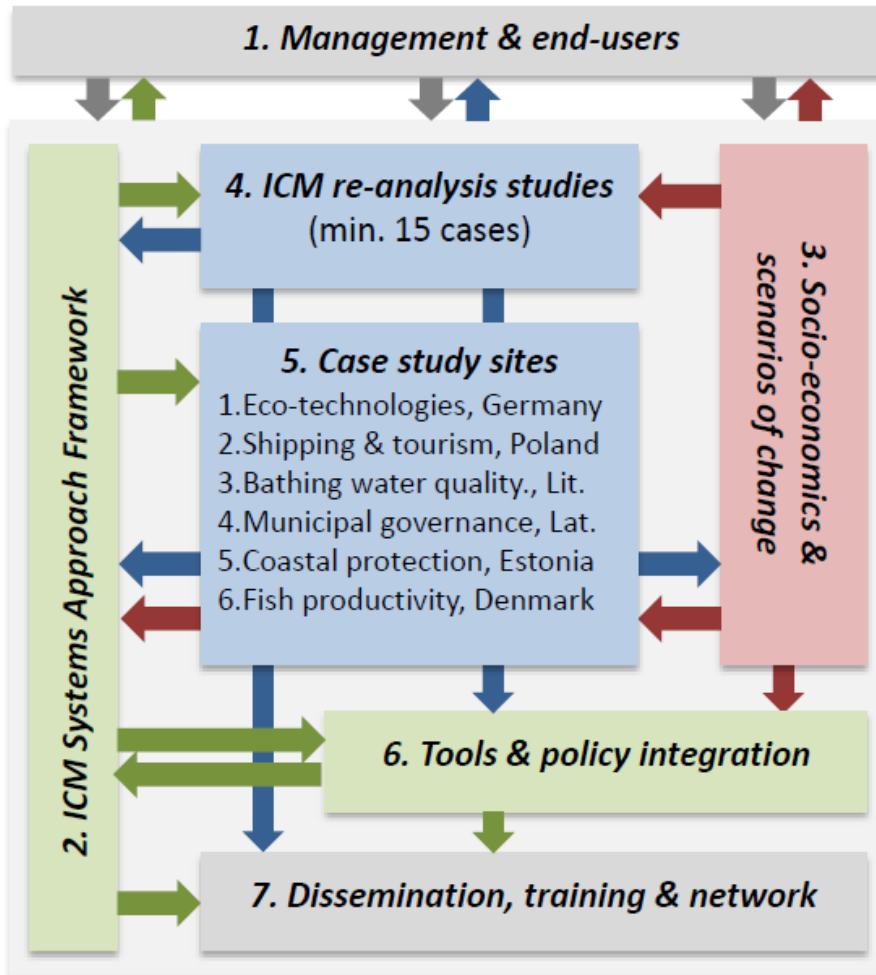


BaltCoast project

- a) to further-develop a **Systems Approach Framework (SAF)** for science and policy integration in the coastal zone into an applicable, user-friendly tool with high practical relevance that allows users to manage with multiple, complex, and diverse issues in the coastal zone and integration of spatial information and concerns;
- b) to tackle **major thematic coastal issues** that require a comprehensive interdisciplinary approach, in a manner that is structured, transparent and provides a framework to deal with complex issues and applicable for evaluating solutions with end-users;
- c) to further-develop and apply an **indicator-based concept** that allows users to measure the sustainability and the success of SAF, ICZM and MSP, as well as a concept to integrate the SAF into existing policy frameworks (e.g. EU Strategy for the Baltic Sea Region, EU Integrated Maritime Policy, EU Marine Strategy Framework Directive (MSFD), Water Framework Directive (WFD), Natura 2000 as well as the Baltic Sea Action Plan);
- d) to carry out **intensive SAF training** and education for academics and professionals in order to increase the capacity to deal with complex coastal issues in a systematic way;
- e) to strengthen and link existing **Baltic ICM activities** and initiatives into a lasting Baltic coastal management competence network.



BaltCoast project



Workpackages and leaders

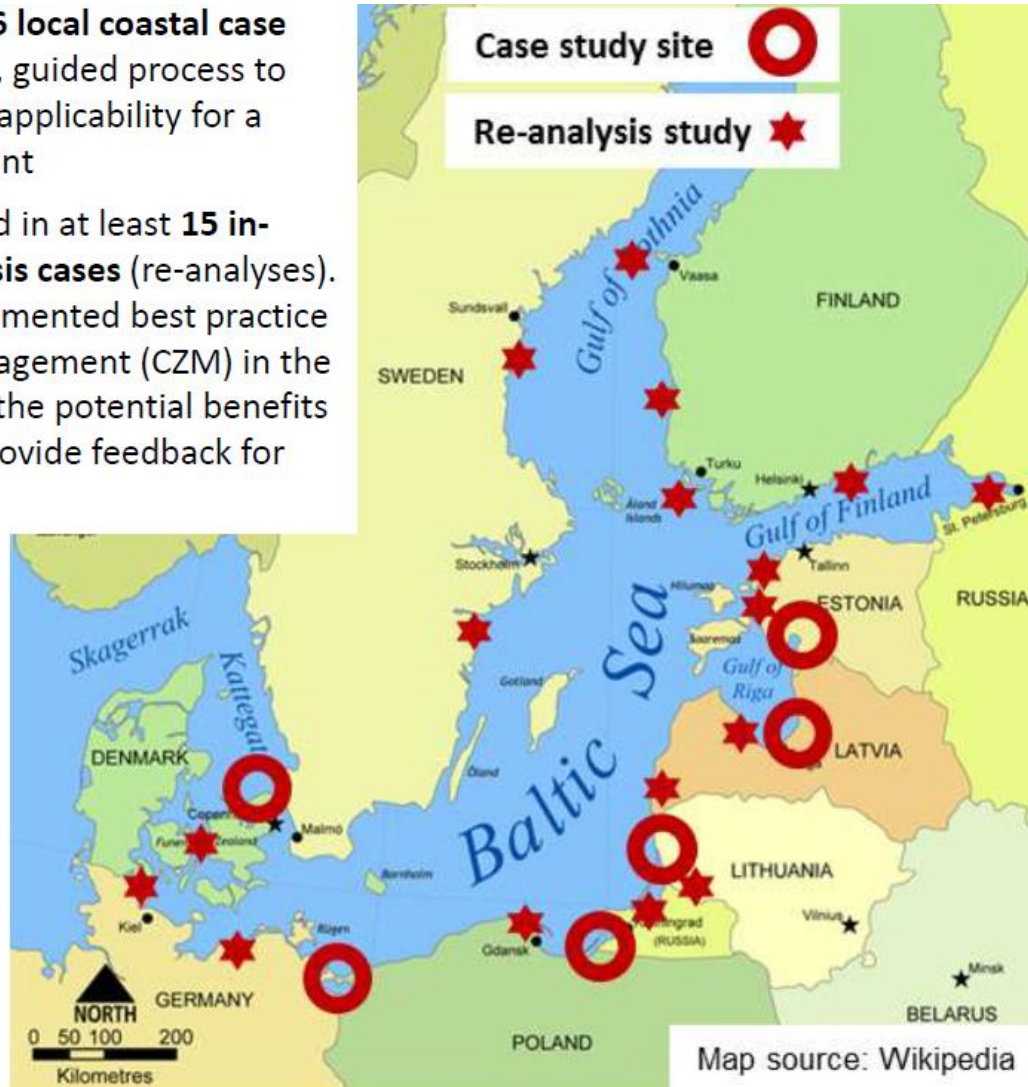
1. Management & end-users; Lead: **Gerald Schernewski** (Ger) with project manager **Holger Janssen** & financial manager **Jurgita Marackinaite**
2. Systems Approach Framework (SAF) development; Lead: **Josianne Stottrup** (Dk)
3. Socio-economics & scenarios of change; Lead: **Ing-Marie Gren** (Swe)
4. Integrated Coastal Management (ICM) re-analysis studies; Lead: **Raimonds Ernsteins** (Lat)
5. SAF-application & case study sites (CSS); Lead: **Josianne Stottrup** (Dk)
6. Tools & science-policy integration; Lead: **Gerald Schernewski** (Ger)
7. Dissemination, training & network; Lead: **Marija Katarzyte** (Lit)



BaltCoast project

The SAF will be applied in **6 local coastal case studies (CSS)** in a stepwise, guided process to demonstrate its value and applicability for a wide range of highly relevant

The SAF will also be applied in at least **15 in-depth retrospective analysis cases (re-analyses)**. Re-analysis studies of documented best practice cases of Coastal Zone Management (CZM) in the Baltic Sea region highlight the potential benefits of a SAF application and provide feedback for SAF improvement.



Map source: Wikipedia



BaltCoast project

- 1. Eco-technologies (mussel farms, artificial macrophyte belts) to support eutrophication management and local development, Szczecin (Oder) Lagoon, Germany/Poland, Leibniz-Institute for Baltic Sea Research**
- 2. Channel deepening to support shipping and tourism development in the Vistula Lagoon, Poland/Russia: Institute of Hydroengineering, Polish Academy of Sciences**
- 3. Towards a bathing water quality management system to develop tourism, Curonian lagoon and coast, MASTEC, Klaipeda University, Lithuania**
- 4. Coastal municipal governance optimisation to support climate change adaptation in Salacgrīva, Gulf of Riga, University of Latvia**
- 5. Integrated coastal protection management, Pärnu Bay, Gulf of Riga, Estonia: Tallinn University,**
- 6. Fish distribution, productivity & management in Inner Danish waters: DTUAqua, Denmark.**



BaltCoast summer school

➤ Lecturers and organisers

- Dr. G. Schernewski**, The Leibniz Institute for Baltic Sea Research, Warnemünde, Germany;
- Dr. J. Støttrup**, National Institute of Aquatic Resources, Denmark (DTU), Denmark;
- Dr. G. Umgiesser**, ISMAR-CNR, Institute of Marine Sciences, Venezia, Italy and Marine Research and Technology Center, Klaipeda University, Lithuania;
- Dr. R. Ernsteins**, UNESCO Chair in Sustainable Coastal Development, Faculty of Geography and Earth Sciences, University of Latvia;
- Dr. R. Povilanskas**, EUCC Baltic, Klaipeda university, Lithuania;
- Dr. M. Bielecka**, Institute of Hydroengineering, Polish Academy of Sciences (IBW), Gdansk, Poland;
- PhD D. Karnauskaitė**, Marine Research and Technology Center, Klaipeda University, Lithuania;
- E. Baltranaite**, Marine Research and Technology Center, Klaipeda University, Lithuania;
- PhD N. Čerkasova**, Marine Research and Technology Center, Klaipeda University, Lithuania;
- J. Schumacher**, The Leibniz Institute for Baltic Sea Research, Warnemünde, Germany;
- PhD M. Inácio**, Marine Research and Technology Center, Klaipeda University, Lithuania;
- PhD A. Balčiūnas**, Marine Research and Technology Center, Klaipeda University, Lithuania;
- N. Stybel**, EUCC Germany
- Dr. J. Petkuvienė**, Marine Research and Technology Center, Klaipeda University, Lithuania.



BaltCoast summer school

	08.22 (Monday)	08.23 (Tuesday)	08.24 (Wednesday)	08.25 (Thursday)	08.26 (Friday)	08.27 (Saturday)	08.28 (Sunday)
Topic/Time	Introduction and Integrated Coastal Zone Management	The Systems Approach Framework & its application	SAF - Issue Identification & Stakeholder involvement	SAF - System design, model formulation, application and scenario simulations	SAF - System output & application examples	SAF - Measuring & evaluating success	Course summary
9:00	Lecture (Welcome, Introduction & Objectives)	Lecture (SAF - Introduction)	Lecture (SAF - Issue Identification)	Lecture (SAF -Systems Design)	Lecture (SAF - application case study Vistula Lagoon)	Lecture (Sustainability indicators – background)	Discussion (Can SAF be used in my case?)
9:45	Presentation (Students present themselves)		Exercise (SAF - Issue Identification)	Exercise (SAF -Systems Design)		Lecture (Sustainability indicators - application & examples)	Discussion (Course evaluation)
10:30	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10:45	Presentation (Students present themselves)	Lecture (The Curonian Lagoon Ecosystem and its Ecosystem services)	Exercise (SAF - Issue Identification)	Exercise (SAF -Systems Design)	Lecture (SAF - Systems Output)	Exercise (Indicator application)	Excursion (Vente, the Nemunas delta and the lagoon coast)
11:00		Lecture (A SAF application case study - Bathing water quality issue in lagoon)	Group presentation (SAF - Issue Identification)	Group presentation (SAF -Systems Design)	Lecture (SAF - application case study Oder/Odra Lagoon)		
11:30							
12:15	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	
13:00		Excursion of the Curonian Spit and Nida	Lecture (Stakeholder involvement)	Lecture (SAF - Systems Formulation & Appraisal)	Role play introduction (SAF - Mussel farming in the Oder/Odra Lagoon)	Lecture (Ecosystem Services – background)	
13:30	Lecture (ICZM- Introduction)						
14:15		The Curonian spit, the lagoon and the SAF application in practice	Exercise (Stakeholder involvement)	Exercise (SAF - Systems Formulation & Appraisal)	Role play (SAF - Mussel farming in the Oder/Odra Lagoon)	Lecture (Ecosystem Services assessment and examples from lagoons)	
15:00	Coffee Break		Coffee Break	Coffee Break	Coffee Break	Coffee Break	
15:15	Lecture (Re-analysis of ICZM best practice)		Exercise (Stakeholder involvement)	Exercise (SAF - Systems Formulation & Appraisal)	Role play (SAF - Mussel farming in the Oder/Odra Lagoon)	Exercise (Ecosystem Service assessment)	
16:00		Short presentations on interesting issues and at special places on the Curonian Spit and Nida	Group presentation (Stakeholder involvement)	Group presentation (SAF - Systems Formulation & Appraisal)			
16:45							
17:00	Evening event (Welcome Reception & get together)		Evening events	Evening events	Evening events	Evening events	Evening events



BaltCoast photo competition

➤ <http://www.baltcoast.net/photo-competition.html>

Welcome to the Photo Competition "Me and my Baltic Coast"!

[DE](#) [DK](#) [PL](#) [LT](#) [LV](#) [EE](#)

The photo competition "Me and my Baltic Coast" is inviting **until the 15th of September 2016** to display the multifaceted life around the Baltic Coast and to capture the typical as well as unique moments while living on and with the Baltic Sea.

Pictures concerning the following topics can be submitted:

- Nature, Environment and Biodiversity
- Life and work with/at the sea
- Economy/ Energy
- Tourism and recreation
- Ships and boats
- Climate, Weather and the force of nature.



Upload your
pictures here



Find the eligibility
requirements here



Find more
information here

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