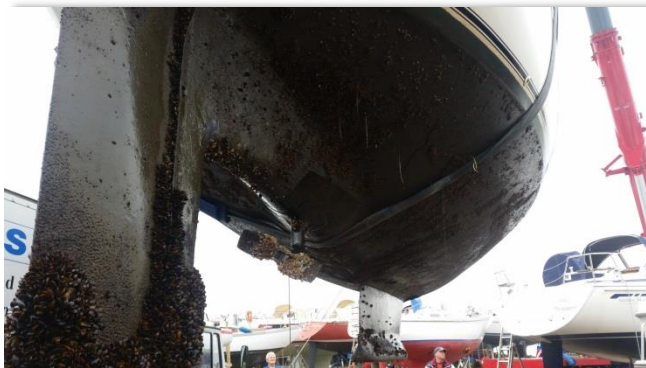


# COMPLETE

Completing management options in the Baltic Sea Region to reduce risk of invasive species introduction by shipping



3. Sustainable Transport  
3.4 Environmentally friendly shipping





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## ■ **Challenges** concerning the implementation of the Ballast Water Management Convention (BWMC) and Marine Strategy Framework Directive (MSFD)

- non-indigenous species (NIS) monitoring and surveillance for MSFD and BWMC
- database and information exchange / synergies
- risk assessment (HELCOM/OSPAR Joint Harmonized Procedure, JHP)
- enforcement (BWMC)
- regional cooperation
- early warning

## ■ **Gaps** concerning biofouling

- legal aspects
- limited knowledge on antifouling practices and procedures
- lack of information common cleaning procedures and facilities
- lack of cost-efficiency analysis
- quantities of biofouling waste and its handling procedures
- the role of leisure boats and their trailers in primary introductions and secondary spread of NIS.



# Invasive species introduction and spread by shipping



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Developing **consistent and adaptive** management tools and recommendations for the Baltic Sea region

BY

Addressing **both** major vectors of harmful aquatic organisms and pathogens: ballast water and biofouling



implementation surveillance  
decision support dialogue  
monitoring **COMPLETE** management systems  
risk assessment harmonization

# COMPLETE in a nutshell



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1. Regionally harmonized implementation and enforcement of the Ballast Water Management Convention
2. Elaboration of a proposal for the BSR biofouling management strategy
3. Harmonization of monitoring for NIS (MSFD/BWMC synergies)
4. Stakeholder involvement





# COMPLETE WPs



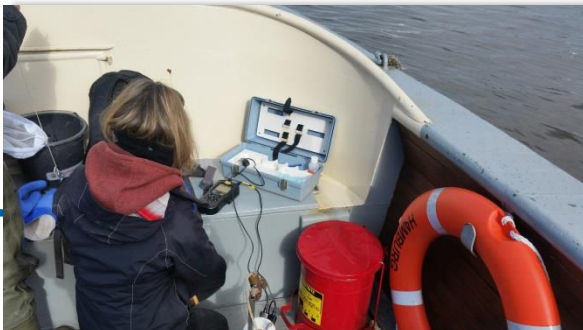
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## WP2 Guidelines for surveillance and monitoring program of non-indigenous species

- Selecting innovative tools for detection of target harmful aquatic organisms and pathogens
- Biofouling assessment protocol for leisure boats
- Assessment of overall biofouling potential and areas of risk
- Integrated monitoring system of non-indigenous species introductions by shipping and other vectors

## WP3 Ballast water risk assessment and management systems

- Target species selection criteria and risk assessments
- Advanced risk assessment tool under the HELCOM-OSPAR Joint Harmonised Procedure
- Delivering the regionally harmonized early warning system for invasive species
- Decision support system for ballast water management in the Baltic Sea
- Training local authorities for the Ballast Water Management Convention



**Ballast Water Exemptions Decision Support Tool** HELCOM COMMISSION

Home Exemptions Port Sampling Target Species Data Additional Information & Help

**A joint regional tool to identify low risk routes for IMO Ballast Water Convention exemptions (A-4)**

Based on the overall IMO framework the 21 Baltic and North-East Atlantic coastal states and EU have developed and agreed in 2013 on a detailed other necessary steps in granting exemptions under regulation A-4 of the IMO Ballast Water Management Convention. This has been done as follows:

Check the potential risk on available routes.

You can do this by selecting in the drop down menus (below) a starting and ending port for a route among those ports where we have comparable data.

From:  to:  Show more details:  yes  no Show Diagram:  yes  no

**Ballast Water treatment is mandatory from 2017**

The entry into force in September 2017 of the IMO Ballast Water Management Convention requires ships in international traffic to apply ballast standard according to the ship specific application schedule.

The latter requires generally the installation of a certified ballast water treatment device, which enables sterilization to avoid transfers of ballast water organisms.

Exemptions are possible on low risk routes.



# COMPLETE WPs



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## WP4 Evidence-based options for biofouling management in the Baltic Sea Region

- National biofouling regulations, cleaning procedures and facilities
- Catalogue of best practices for biofouling management from within and outside the Baltic Sea Region
- Guidance on antifouling systems, cost-efficiency evaluation
- Benefits of biofouling management on ship speed, fuel consumption and emissions

## WP5 Databases and user-friendly information support

- Information system on non-indigenous species and harmful aquatic organisms and pathogens
- Decision support tool for selection of optimal antifouling system and cleaning options
- Interactive user-friendly map on hull cleaning services

## WP6 Stakeholder involvement and strategy development processes

- Establishing network of main stakeholders
- Engaging stakeholders into development and use of project products
- Roadmap proposal for harmonized biofouling management strategy in the Baltic Sea Region



# Consortium



## Partners:

**KMRA/FI, Kotka Maritime Research Association - Project Co-ordination**  
KU/LT, Klaipėda University  
HELCOM Helsinki Commission  
SYKE/FI, Finnish Environment Institute, Marine Research Centre  
UG/PL, University of Gdansk  
UH/FI, University of Helsinki, Department of Environmental Sciences  
CHALMERS/SE, Chalmers University of Technology  
EDA/LV, Environmental Development Association  
BSH/DE, Federal Maritime and Hydrographic Agency  
XAMK/FI, South-Eastern Finland University of Applied Sciences  
UTARTU/EE, University of Tartu  
KAT/FI, Keep the Archipelago Tidy Association

## Associated organizations:

Polish Ministry of Maritime Economy and Inland Navigation  
Ministry of the Environment of Estonia,  
Ministry of the Environment of Finland  
Ministry of Agriculture and Forestry of Finland,  
Ministry of Environment and Food of Denmark  
German Federal Environment Agency  
Swedish Transport Agency  
Finnish Transport Safety Agency,  
Lithuanian Maritime Safety Administration,  
AS Tallink Grupp  
Finnlines PLC  
Navidom Oy  
Viking Line Abp  
Polish Register of Shipping S.A.  
Baltic Ports Organization  
Port of Gdynia Authority S.A.  
SE Klaipeda State Seaport Authority  
Port of Hamburg Marketing  
International Council for the Exploration of the Sea  
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