

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

COMPLETE challenges

- **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.

COMPLETE in a nutshell

1. Regionally harmonized implementation 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)

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

COMPLETE WPs

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 Harmonized Procedure
- Delivering the regionally harmonized fully operational early warning system
- Decision support system for the Baltic Sea ballast water management
- Training local authorities for the Ballast Water Management Convention

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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 in the Baltic Sea Region

Consortium



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SYKE/FI, Finnish Environment Institute,
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KAT/FI, Keep the Archipelago Tidy Association

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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
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