

CLEAR WATERS IN THE BALTIC SEA REGION

SUMMARY

This factsheet provides an overview of the achievements gained by the transnational projects within the **Interreg Baltic Sea Region Programme 2014-2020** thematic priority **"efficient management of natural resources"** and the objective **"clear waters"**. In this factsheet, you will find examples of the projects' solutions, and for more information visit the **project library**. Many of these projects contributed to progress towards the objective of the **EU Strategy for the Baltic Sea Region (EUSBSR)** *"save the Sea"*. The projects helped to advance the implementation of the EUSBSR action plan in the policy areas of Bioeconomy, Nutri, and Hazards.

Besides, the projects' solutions can serve as a basis for the inspiration of what else can be transnationally developed under the new priority of the Interreg Baltic Sea Region Programme 2021-2027 "water-smart societies" and the objective "sustainable waters".

What?

The projects tackled the following challenges:

- Nutrients run-off from agriculture and forests;
- Hazardous substances in industry, service sectors, and households;
- Inefficient wastewater treatment in cities and rural areas;
- Dumped marine munitions and litter in marine space.

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Baltic Sea Region

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Who?

The solutions are for municipalities working with chemical risks management, national and regional authorities managing environmental issues, farmers treating animal manure, forest owners, agricultural and rural advisory bodies, wastewater treatment plants operators, industry and small and medium-sized enterprises as well as NGOs and citizens.

• ACHIEVEMENTS

Reduced loss of nutrients

New slurry acidification technology on farms (Baltic Slurry Acidi.)

- Lessons learnt from pilot investments into slurry acidification tankers on private farms, experimental farms, and agricultural contractors in Estonia, Germany, Latvia, Lithuania, Poland and with the aim to reduce nitrogen loss and ammonia emissions
- Policy recommendations of agricultural and rural advisory agencies and research institutes on the implementation of slurry acidification technology across the Baltic Sea.

Tools for better handling of manure (Manure Standards)

- Handbook for farmers and agricultural advisories on good manure management practices on how to make the most of manure and use its valuable nutrients.
- Guidelines for manure sampling and analysis for farmers, national advisors and laboratory personnel; these guidelines are a step forward in harmonising sampling methods used across the Baltic Sea region
- Calculation tools for the manure quantity, properties, emissions throughout the whole production chain and composition of annual livestock manure
- Recommendations for manure data and use for farmers on how manure data may affect farm practices as well as how to make better use of

Tools to better manage drainage systems, riparian forests and beaver activity in forests (WAMBAF)

- Ditch management tool developed as a mobile application in planning drainage works in forests for forest owners, machine operators and entrepreneurs.
- Blue targeting tool, a forestry planning tool that helps forest owners and managers design a riparian forest buffer, to propose the right measure, at the right place, to the right extent, thereby protecting water quality and biodiversity.
- Beaver tool for forest owners and managers to assess beaver dams and how they affect nearby forests, biodiversity, recreational value, and water and to recommend whether to remove or keep them



Decreased emissions of hazardous substances

Systematic inclusion of hazardous substances into the EU's reference documents of its Industrial Emissions Directive (HAZBEF)

- Methods to include information on hazardous and other substances of concern into the best available techniques reference documents (BREFs) for environmental and chemical authorities as well as sectoral industrial organisations.
- Study on enabling the progress of Circular Economy by promoting clean, non-toxic material cycles through the BREF process, covering three industrial sectors: polymers and fertilisers from the chemical sector, the textile sector and the surface treatment of metals and plastics.

Actions to reduce hazardous substances from small emitters (NonHazCity)

- Chemical action plans for municipalities in Estonia, Finland, Poland, Latvia and Lithuania that included some 100 concrete actions to reduce hazardous substances
- Proposals of how SMEs' can replace or reduce the hazardous substances used in the workspaces that are harmful to employees' health, e.g. in hair salons, car repair shops, cleaning services, hotels and offices.
- Chemical-smart procurement rules in e.g. renovation, construction, cleaning for municipalities

Improved wastewater treatment

Wastewater treatment solutions and optimised water treatment processes in rural areas (VillageWaters)

- Guidelines on the best available wastewater treatment solution in the countryside including new technology procurement, evaluation, operability and maintenance.
- Pilot constructions of small-scale wastewater treatment solutions in rural municipalities.
- Development of energy management audit tool for the (self-)assessment of wastewater treatment plants' energy management and energy performance.
- Improved smart sludge management audit for the (self-)assessment of wastewater treatment plants' sludge handling and for monitoring of the sludge management.

Tools for wastewater treatment plants (IWAMA)

- Establishment of the Baltic Smart Water Hub to serve water companies, local authorities cleantech companies, NGOs to improve wastewater management; the Hub covers good practices, technical solutions and tools to optimise wastewater treatment and other water-related issues
- Audit tool for smart energy management used for self-assessment of wastewater treatment plants in Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden to monitor energy performance
- Audit tool for smart sludge management used for monitoring and assessing sludge water



Improved industrial wastewater treatment (BEST)

- The assessment report presents the existing situation on industrial wastewater management in Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden;
- Guidelines for the management of industrial wastewaters support legislative, permitting and supervising authorities, water utilities affected by industrial wastewaters as well as industrial operators conveying industrial wastewater to the sewer;
- Report on local cooperation models summarises the development process in selecting models for testing;
- Toolbox of best practices in industrial wastewater management covers automation and monitoring, cooperation, education and training, phosphorus recovery, pre-treatment practices and methods for industries and utilisation of sludge;
- Technologies to improve treatment of industrial wastewater include fermentation installation at wastewater treatment plants, phosphorus filtering system for nutrient recovery, balancing tank to improve treatment results and pre-treatment installation.

Removed litter and improved management of dumped munitions in the Baltic Sea

Decision support system for dumped marine munitions (DAIMON)

- Online tool for risk categorisation and decision aid for public institutions dealing with the management of marine space (maritime, environmental, fishery, military) and offshore economy stakeholders to handle munitions dumped into the Baltic Sea and Skagerrak
- Catalogue of all types of munitions on the bottom of the Baltic Sea with weapon type, its calibre, country of origin that helps identify munition pieces found during e.g. fishing, construction works, dredging
- EcoTox Toolbox for monitoring ecological threats posed by dumped marine munitions for environmental research and regulatory bodies.

Roadmap on how to tackle derelict fishing gear (MARELITT Baltic)

• Handbook on mapping, retrieval, recycling, and prevention to reduce derelict fishing gear in the Baltic Sea for policymakers, fishing organisations, fishery management authorities, fishery control authorities, and NGOs.

TAGS: Hazardous substances, nutrients, industry, agriculture, biodiversity, rural areas, marine space, risk management, wastewater management.