Testing new storm water treatment solutions for reduction of hazardous substances and toxins inflows into the Baltic Sea (CleanStormWater)

Programme Priority: P2 Sustainable use of common resources

Programme Specific Objective: 2.4. Reduced nutrients, hazardous substances and toxins inflow into the Baltic Sea

Sub-programme: Central Baltic

Duration: 01.02.2020 - 31.12.2022

Total funding: 1.626.163 EUR

ERDF funding: 1.316.485 EUR ERDF

Project Summary:

The project objective is to develop and test new storm water treatment solutions that will effectively clean storm water, ensure management quality and monitor water quality in near real time, thus enabling operative response in emergency cases.

To achieve these results, the project will address issues related to the 1) cleaning of stormwater with equipment/facilities, 2) quality system management and 3) e-monitoring of hazardous substances and toxins.This will lead to the development of near real time water quality monitoring devices that will be tested and implemented. The data related to the operative response to emergency cases will be collected to improve their functioning and for scientific purposes. The criteria for Quality Management and a set of corrective modifications will be implemented in the test areas of the participating countries by building centralised stormwater treatment solutions in Estonia and Latvia, and two decentralised solutions in Finland.

The Project partners will test the following new technical solutions:- a centralised multi-stage storm water treatment & monitoring system in Viimsi, EE;- a centralised stormwater treatment unit equipped with real-time sensors for monitoring in Riga, LV;- a decentralised bioretention basin/cells with monitoring functionality in Lieto and Turku, FI. In all areas, the technical solution of storm water treatment will be accompanied with a water quality system management and monitoring in near real time thus enabling operative response in emergency cases. Municipalities and cities will be equipped with criteria, instructions and tools for ensuring the quality management of stormwater management structures during the project life cycle.

Map of Partners

Partners

Lead Partner

Viimsi Vallavalitsus

Country: EE

www.viimsivald.ee [1]

Partner budget: 476.933 EUR

Amount of ERDF funding: 400.624 EUR ERDF

Project Partners

Tallinna Tehnikaülikool

Country: EE

www.taltech.ee [2]

Partner budget: 243.967 EUR

Amount of ERDF funding: 207.372 EUR ERDF

R?gas pils?tas pašvald?ba R?gas domes Pils?tas att?st?bas departaments

Country: LV

www.rdpad.lv [3]

Partner budget: 295.421 EUR

Amount of ERDF funding: 251.108 EUR ERDF

Turun ammattikorkeakoulu

Country: FI

www.tuas.fi [4]

Partner budget: 336.211 EUR

Amount of ERDF funding: 252.158 EUR ERDF

Kungliga Tekniska högskolan

Country: SE

www.kth.se [5]

Partner budget: 273.631 EUR

Amount of ERDF funding: 205.224 EUR ERDF

Associated Partners

Liedon kunta

Country: FI

Turun kaupunki

Country: FI

Results

Expected results

Achieved results

Project result in category - Reduction of nutrients, hazardous substances and toxins inflow into the Baltic

Testing new storm water treatment solutions for reduction of hazardous substances and toxins inflows into the Baltic Sea

As the main result, the pollution to the Baltic Sea from the stormwater systems has been reduced in four pilot sub catchments - Viimsi (EE), Riga (LV), Turku (FI) and Lieto (FI) by applying new solutions in integrated cleaning of stormwater, management quality and real-time monitoring of water quality parameters. All pilots remain in active use of the participating municipalities.

Additionally, the project demonstrated a fruitful way of cooperating between local governments and higher education institutions in innovation for improvement of the environmental condition of the Baltic Sea. The project offered an excellent opportunity to bring together the best specialists from the participating countries for joint implementation. The project results provided to develop guidelines for constructing the wetlands and establish permanent sampling/ online monitoring systems.

Project page in database
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At a glance

- four pilot sub catchments developed and in use in Viimsi (EE), Riga (LV), Turku (FI) and Lieto (FI)
- new solutions for cleaning of stormwater, management quality and real-time monitoring of water quality
- guidelines for constructing the wetlands and establish permanent sampling/ online monitoring systems

Files
Guidelines for CleanStormWater best practices [7]
Tags
Coastal management and maritime issues [8]
Waste and pollution [9]

Project Visibility

Social media links

Project website [10]

Lead partner webpage - project link [11]

Project partner webpage - about project [12]

Project partner webpage SWE - about project [13]

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Links
[1] http://www.viimsivald.ee [2] http://www.taltech.ee [3] http://www.rdpad.lv [4] http://www.tuas.fi [5] http://www.kth.se [6] https://database.centralbaltic.eu/project/125 [7] https://database.centralbaltic.eu/sites/default/files/Guidelines_CleanStormWater4nov2022.pdf [8] https://database.centralbaltic.eu/tags/coastal-management-and-maritime-issues [9] https://database.centralbaltic.eu/tags/waste-and-pollution [10] https://cleanstormwater.viimsivald.ee/ [11] https://www.viimsivald.ee/interreg-cb-project-cleanstormwater [12] https://www.rdpad.lv/portfolio/jaunu-lietus-udens-attirisanas-risinajumu-testesana-bistamu-vielu-un-toksinu-iepludes-ierobezosanai-baltijas-jura-cleanstormwater/ [13] https://www.kth.se/dib/wastewater-treatment-1.783193