

TAL TECH

NOAH PROJECT IN A NUT-SHELL

PROF. IVAR ANNUS, TALTECH



- Professor of urban water systems, vice-dean for academic affairs
- Risk assessment and mitigation, optimization, design and management of hydraulic systems.
- Modelling of hydraulic networks.
- Smart urban water systems and integrated urban planning.
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NOAH PROJECT

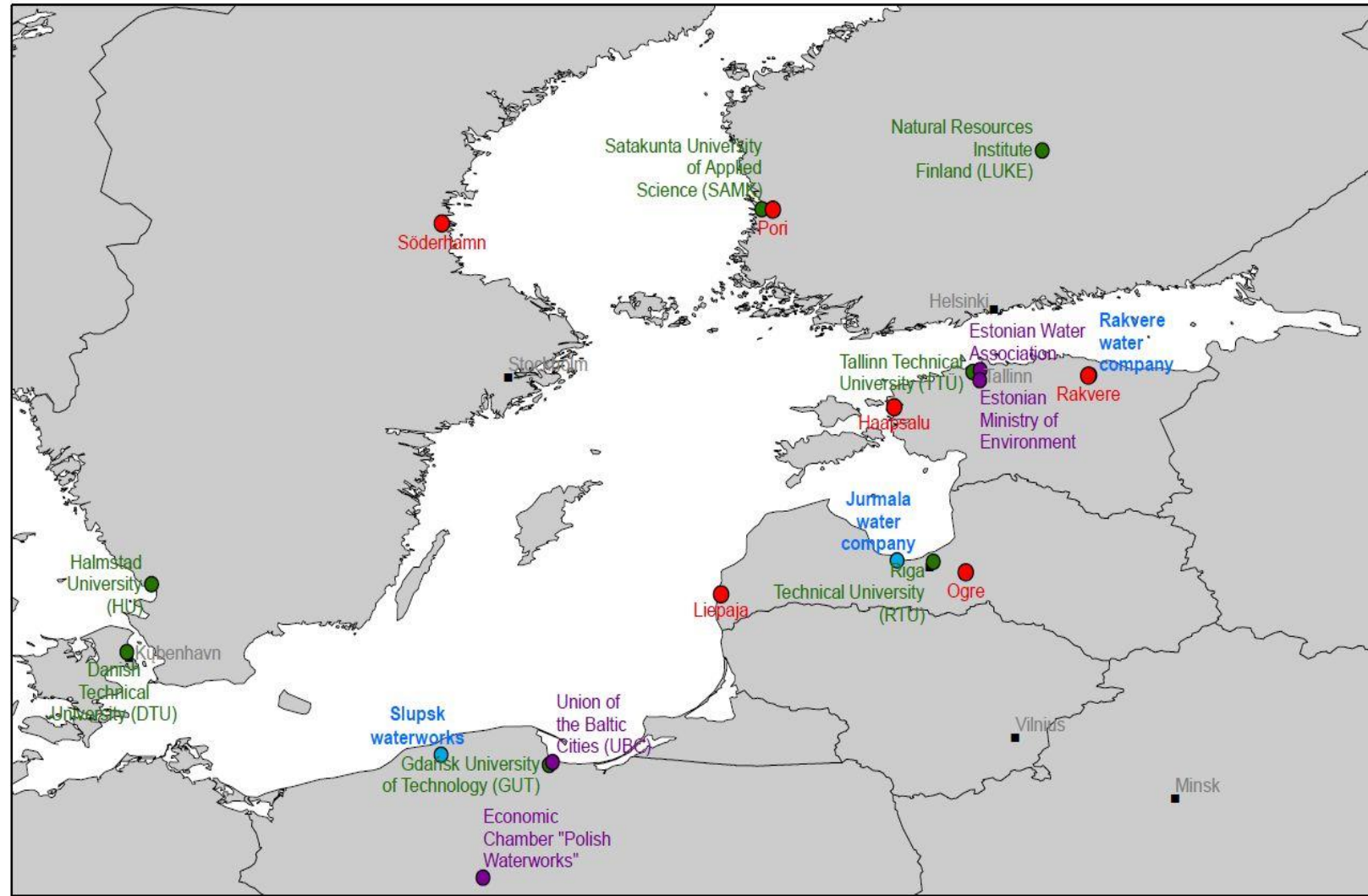
- **Protecting Baltic Sea from untreated wastewater spillages during flood events in urban areas (NOAH)**
- Lead partner Tallinn University of Technology
- Project duration 01.2019 – 12.2021, budget ~3 M€
- 18 partners from six countries

- **Objectives of the project:**
 - Reduce the load of nutrients and hazardous substances to the Baltic Sea by enhancing capacity of public and private actors dealing with land use and spatial planning. **Result – development and implementation of an urban planning support tool.**
 - Decrease spillages of untreated wastewater from urban drainage network to the Baltic Sea by enhancing capacity of water utilities responsible for urban drainage system operation. **Result – implementation of smart urban drainage systems.**
 - Fill knowledge gaps of both municipalities and water utilities around the Baltic Sea to implement the solutions of NOAH. **Result – improve capacity of the institutions.**

NOAH TEAM



NOAH PROJECT



NOAH PARTNERS

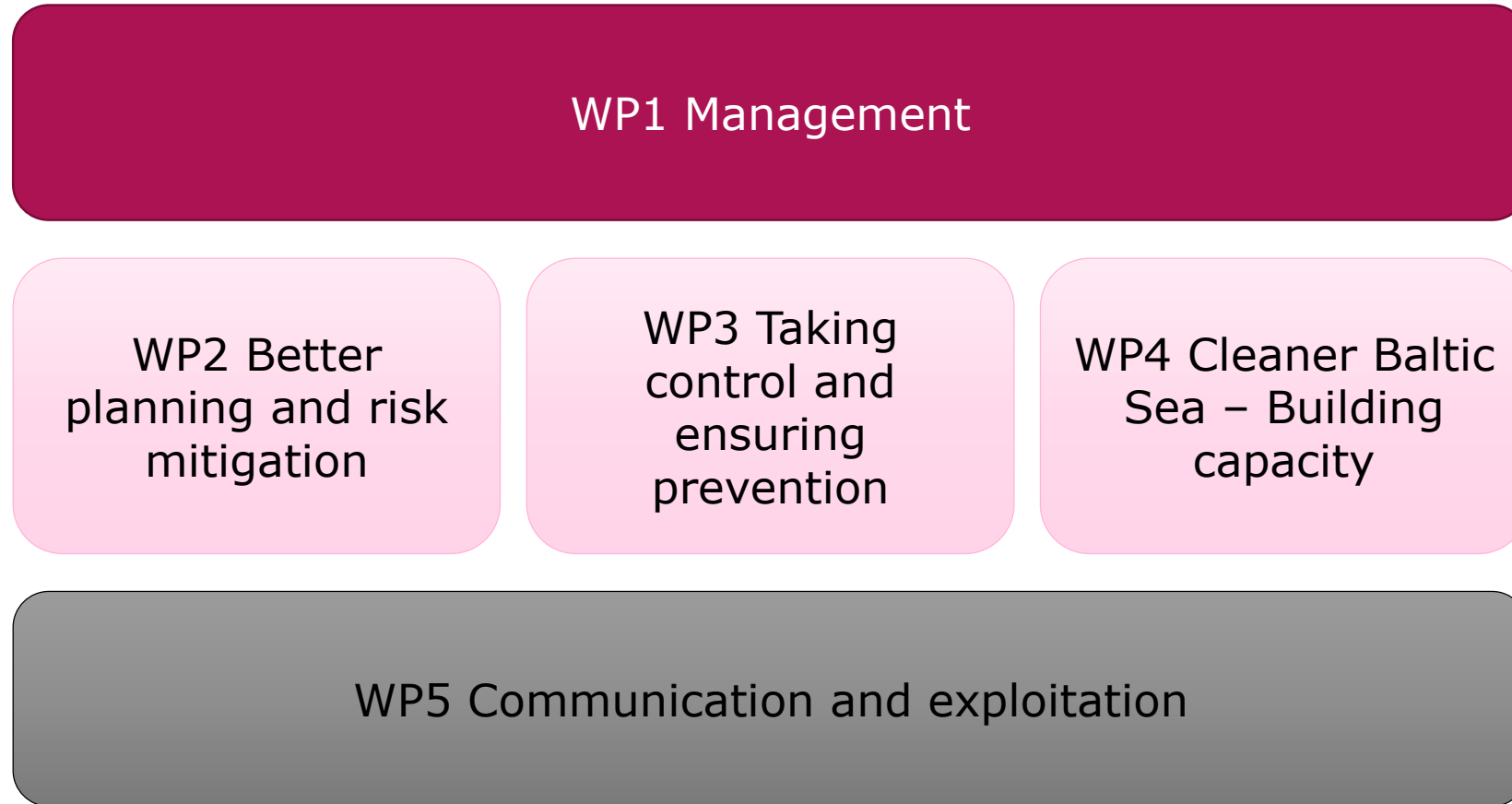
- TOWNS
- WATER COMPANIES
- ORGANISATIONS AND POLICY MAKERS
- ACADEMIES



NOAH PILOT SITES



OVERVIEW OF THE NOAH PROJECT



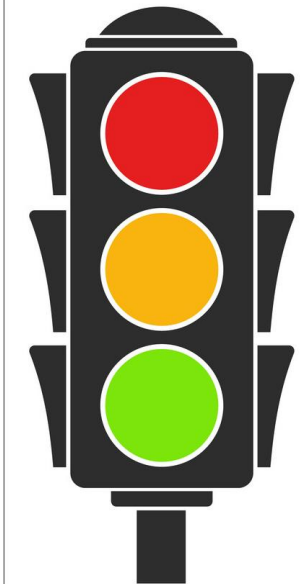
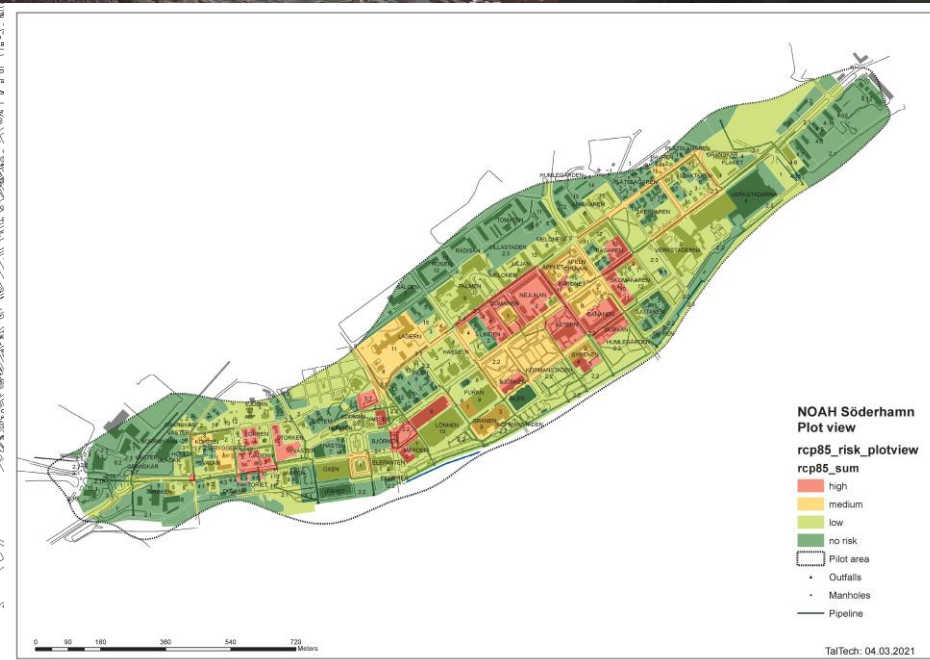
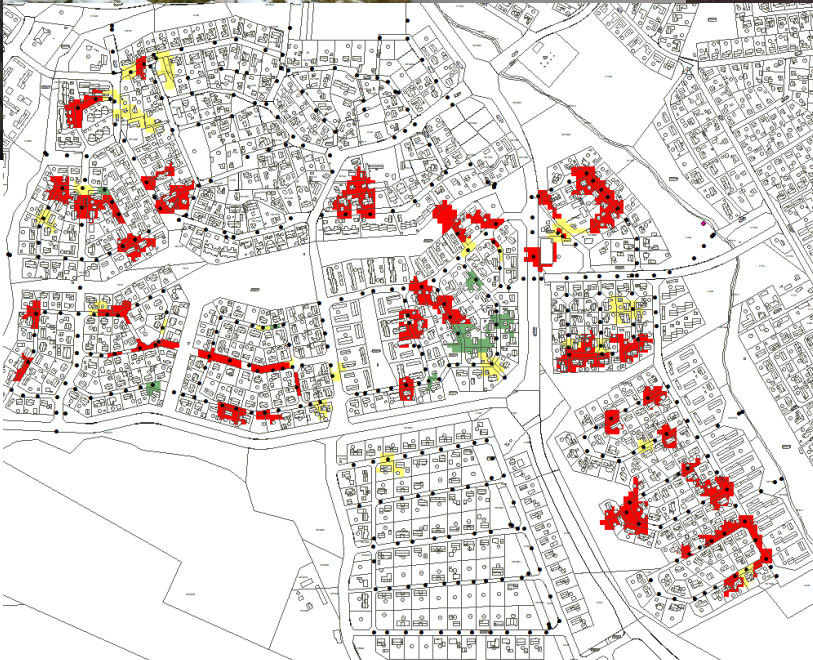
WP2 BETTER PLANNING AND RISK MITIGATION

RESULT – DEVELOPMENT AND IMPLEMENTATION OF AN URBAN PLANNING SUPPORT TOOL



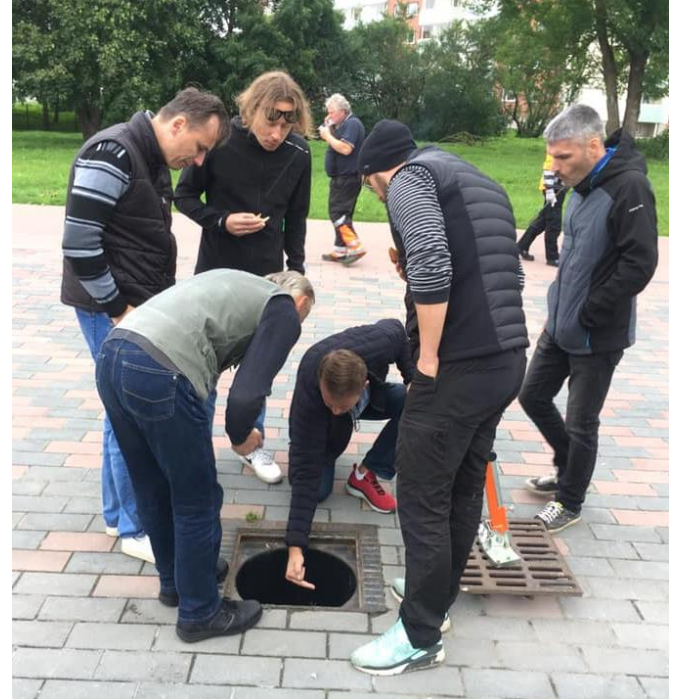
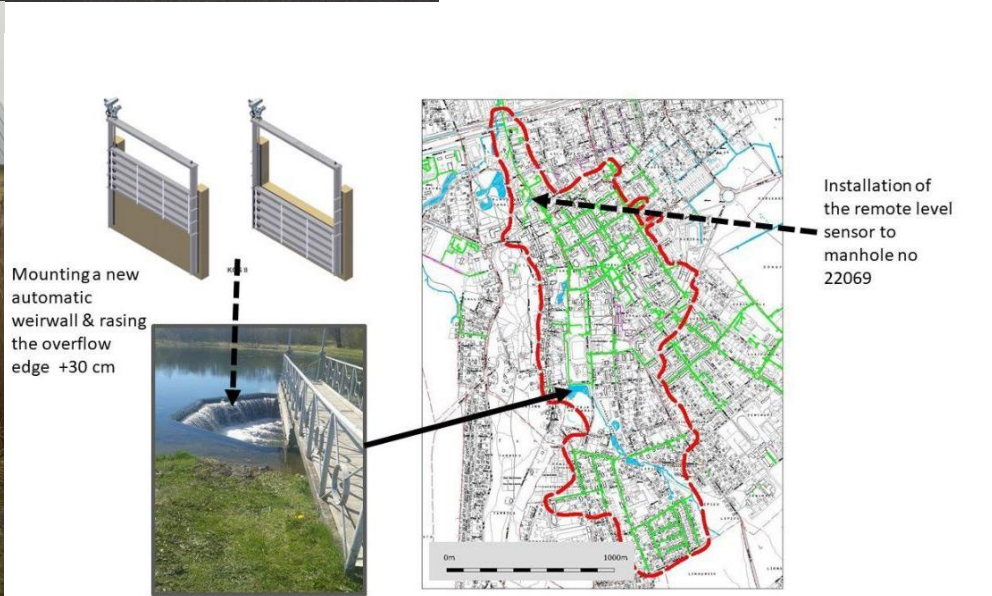
WP2 BETTER PLANNING AND RISK MITIGATION

RESULT – DEVELOPMENT AND IMPLEMENTATION OF AN URBAN PLANNING SUPPORT TOOL



WP3 TAKING CONTROL AND ENSURING PREVENTION

RESULT – IMPLEMENTATION OF SMART URBAN DRAINAGE SYSTEMS



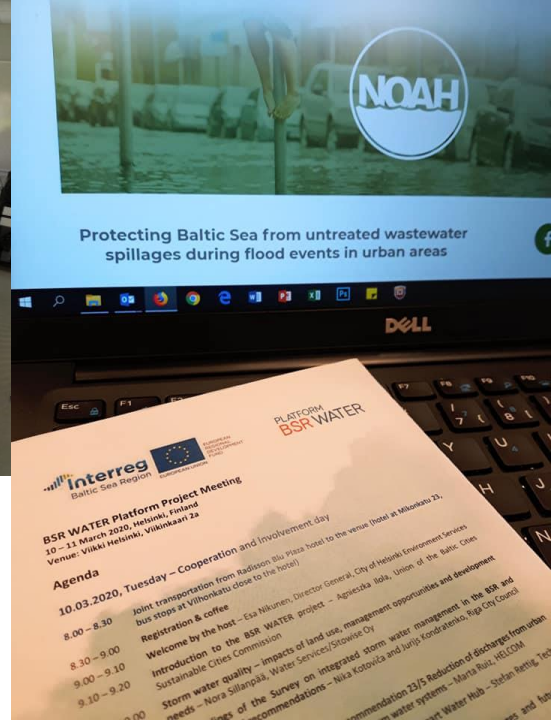
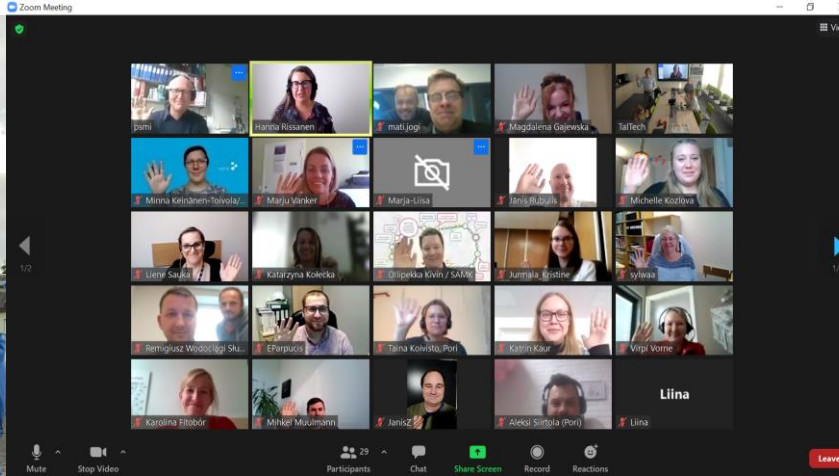
WP3 TAKING CONTROL AND ENSURING PREVENTION RESULT – IMPLEMENTATION OF SMART URBAN DRAINAGE SYSTEMS



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WP4 CLEANER BALTIC SEA – BUILDING CAPACITY

RESULT – IMPROVE CAPACITY OF THE INSTITUTIONS



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WEBINAARI
HUOMIOI HULEVEDET

BSR NOAH -hankkeen tuloksia, esimerkkinä Porin kaupunki
16.11.2021 klo 9:00-15:00

WP5 COMMUNICATION AND EXPLOITATION RESULT – VISIBILITY AND TRANSFERABILITY



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 **NOAH**
Avaldas Hanna Samk · 6. september · 🌐

The Estonian news portal Novaator published an article on how smart water systems help to solve the problem with excess water in urban areas – NOAH pilot sites Haapsalu and Rakvere as examples. The article (in Estonian) is based on a recent doctoral thesis finalized at the Tallinna Tehnikaülikool, lead partner of the NOAH project. 💧 #bsrnoah #smartwatersystems #taltech #novaator TalTech Urban Water Systems

Vaata tõlget




NOVAATOR.ERR.EE
Doktoritöö: liigest vihmaveest aitaks vabaneda tark veetorustik
Süveneva linnastumise ja äärmuslike ilmaolude sagenemise valguses pole võimalik praeguseid...

 **NOAH**
Avaldas Sonja Samk · 2. juuli · 🌐

A recent interview (in Latvian) about NOAH project activities on the Latvian Radio with Jānis Rubulis from Riga Technical University (RTU).

The interview concentrates on technologies developed for flood forecasting and prevention, which have been implemented in three NOAH pilot sites located in Latvia: Jūrmala, Liepāja and Ogre.

 **NOAH**
Avaldas Sonja Samk · 13. august · 🌐

Take a look at the new scientific article written by NOAH partners from [TalTech - Tallinn University of Technology \(TalTech Urban Water Systems\)](#)! The article covers some of the testing done in the NOAH pilot site in Rakvere, Estonia. 🍌
#bsrnoah #climateresilience

The article can be found online in the Urban Water Journal:

Vaata tõlget

 **TANDFONLINE.COM**

Controlling peak runoff from plots by coupling street storage with distributed real time control
(2021). Controlling peak runoff from plots by coupling street storage with distributed real time control. Urban Water Journal. Ahead of Print.



CONCLUSION



CONCLUSIONS

- An **urban planning tool** for sustainable cities was developed that enables to assess the **pluvial flood risks** based on the **performance of the existing urban drainage system**
- EWL is implemented in **eight municipalities around the Baltic Sea**
- **Smart Weirwall Systems** and **Automatic Hydrological Stations** were installed in **three countries** to **increase the performance** of the existing urban drainage systems and **decrease the inflow** of hazardous substances to the surrounding water bodies
- **Cooperation, cooperation, cooperation...**



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