SPRINGINESS

Management of rainwater runoff in urban areas for tackling extreme hydroclimatic events

Water4All
Water security for the planet

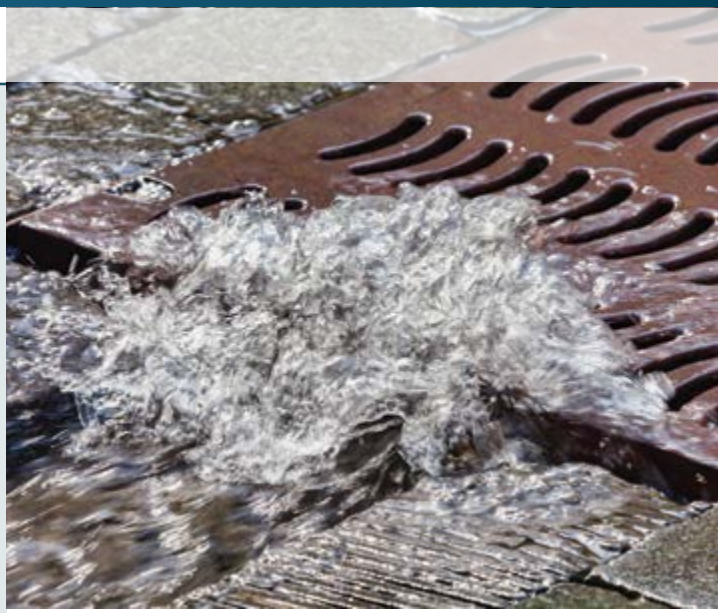
Abstract

SPRINGINESS will improve and ease the application of blue-green infrastructure (BGI) to manage extreme hydroclimatic events and to provide safe water source for reuse from rainwater.

The project will provide key know-how for the design and implementation of BGI (supplemented with physical-chemical treatment if needed), for mitigating sewer overloading, environment pollution and for boosting water reuse within an urban area.

The aim of the project is to develop tools to manage stormwater retention and reuse, to overcome climate-change-related water instabilities in urban space using BGI with a university campus as an implementation area. This will be achieved using an innovative approach combining the evaluation of human exposure routes, and the application of hydrological model and modelling of water management (STORM model) upgraded with a new module for proxy contaminants of rainwater. In close collaboration between researchers and water sector professionals a new strategy for the application of BGI in urban areas for rainwater management will be offered.

The project will address the call topics by proposing BGI-based solutions for water retention and its safe reuse within the urban landscape and the protection of the environment and the sewer system against extreme hydroclimatic events, by proposing models for safe rainwater management using BGI and upgrading existing models (STORM) with new modules, and finally by providing guidelines for the design, application and funding (in CZ, PL, PT and D) for BGI for rainwater management.



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Project partners

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- UNIVERSIDADE DO PORTO - PORTUGAL
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WWS Water and waste systems