

ModULar Tools for Integrating enhanced natural treatment SOlutions in URban water CyclEs

MULTISOURCE in a nutshell





AT A GLANCE

- **Duration**: 4 year project (01/06/2021 31/05/2025)
- Estimated Project Cost: €5,169,165.00
- Requested EU Contribution: €4,999,631.25
- Funding Programme: Horizon 2020
- **Consortium**: 20 partners, 12 countries
- Coordinator: INRAE



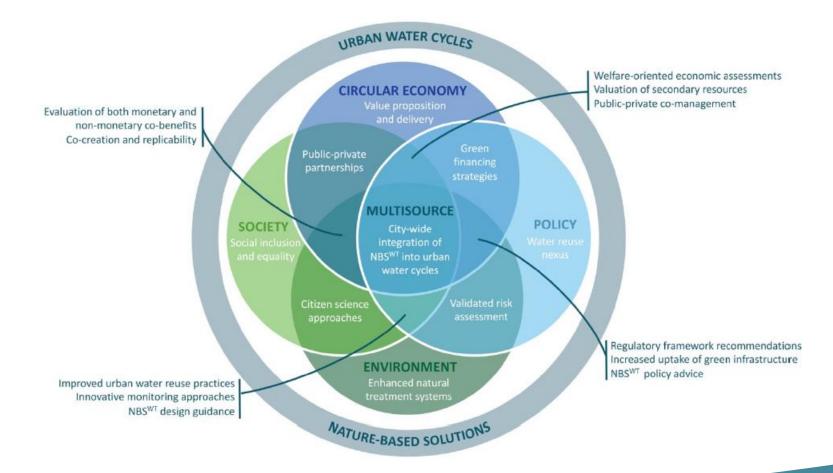
AT A GLANCE

The overall objective of MULTISOURCE is to facilitate the systematic, citywide planning of nature-based solutions for urban water treatment, storage and reuse.





OVERALL CONCEPT





OBJECTIVES



- Demonstrate ENTS pilots in operational environments in order to:
 - establish policy-oriented risk assessment for NBSWT based on intended reuse;
 - foster increased financial investments into NBSWT in a variety of urban settings
 - increase transfer of international know-how and technical understanding of ENTS;
- Create a basis for the identification of the most suitable NBSWT for a given context
- Enable water stakeholders to assess and compare different spatial environmental and economic scenarios (both with and without NBSWT) on a city-wide scale;
- Increase urban water stakeholder engagement in NBSWT planning, implementation & maintenance;
- Improve urban governance and policies for implementation of NBSWT in urban settings, as well as engage public standardization bodies and facilitate processes to update existing standards;



HOW? KEY COMPONENTS

Types of Urban Water

Raw Wastewater · High-Strength Wastewater · Domestic Wastewater · Combined Sewer Overflow · Greywater · Road Runoff · Rainwater

Enhanced Natural Treatment Solutions

Blue-Green Retention Roofs · Enhanced Treatment Wetlands · Hybrid Green Walls · PhytoParking™ · Recirculating Wetlands · Reuse Raingardens

Risk Assessment

Non-Target Screening of New Chemicals ·
Probabilistic Risk Assessment · Cumulative
Risk Assessment · Effluent Reuse

Business Models

Financing and Long-Term Management-Value Proposition and Circularity · Cost-Benefit Analysis Tool· Replicability

Technology Selection

International Knowledge Acquisition · Life Cycle Assessment · Testing and Evaluation · Guidance for Process Design of NBS^{WT}

MULTISOURCE Planning Platform

Hydraulic Disconnection Module · Large-Scale Planning · Scenario Development · Scenario Evaluation and Ranking · Urban Archetypes

Stakeholder Engagement

Co-Creation Framework · Gender Mainstreaming · International Knowledge Exchange · Social Inclusivity

Communication, Clustering, and Dissemination

Pilot Information Days · Innovative Communication Methods · Open Access Design Engineering Textbook · Water Projects Europe · Policy Advice



HOW?



The project includes seven ENTS pilots in seven different countries, each treating a different type of urban water.



MULTISOURCE will create customizable, open-source tools to facilitate decision support for selection, design, large-scale planning and investment in NBSWT in urban settings.



To complement the tools, demand-driven business models will be developed for post-project continuation and replication based on circular urban resource use and ecosystem services. The business models will be co-created with a diverse group of stakeholders.



7 PILOTS





Belgium – Pretreated wastewater



Italy – Combined Sewer Overflow



USA – High-strength wastewater



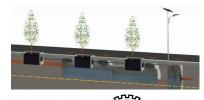


Spain – Greywater





Norway – Runoff





Germany – Rainwater







IMPACT AND RESULTS



Monitoring of seven ENTS pilots in operational environments

MULTISOURCE NBSWT
Selection and Design
Tool

MULTISOURCE Planning
Platform, an opensource urban water
planning tool that
enables systematic
planning of NBSWT on
a city-wide scale

Case studies / roll-out of MULTISOURCE tools in partner cities

Policy recommendations for increased uptake of urban NBS^{WT}

20 partners • 9 EEA Countries • 3 International Countries

Individual Municipalities

Municipalities
CMM (IT)
GLYON (FR)

Metropolitan

Small and Mediumsized Enterprises (SME)

ALCN (AT) IRIDRA (IT) RIETLAND (BE) Non-Profit
Organizations
FER (SI)

Non-Profit SME ICLEI (DE) Universities
AU (DK)
HCMUT (VT)
INSA (FR)
MSU (US)
LIESC (BR)

Research Institutions
ICRA (ES)

ICRA (ES) INRAE (FR) NIVA (NO) UFZ (DE) Consultancy

France









Slovenia



Spain





Belgium





Norway





Italy











Austria



Denmark



Brazil



USA



Vietnam



THANK YOU













This project has received funding from the European Union's Horizon H2020 innovation action programme under grant agreement 101003527.