



# Upscaling the natural sponge functions of freshwater ecosystems to deliver multi-benefit green deal solutions

## Background

Europe's landscapes have faced extreme weather, from heatwaves and droughts to heavy rains, severely damaging ecosystems and society. To combat these challenges, the SpongeBoost project was launched. SpongeBoost focuses on enhancing landscapes' natural sponge-like characteristics to manage water flow and storage. This involves refining existing methods, implementing them on a larger scale, and exploring innovative solutions. The project aims to strengthen landscapes' resilience against climate-related extremes through natural water retention.

## Case Study Areas



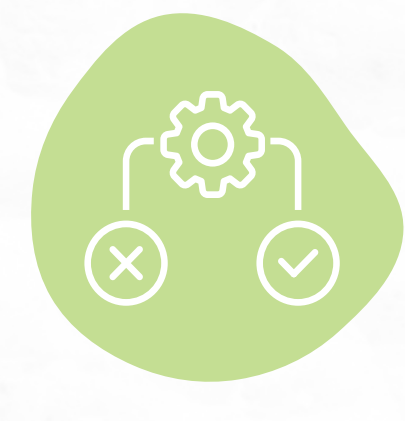
## Consortium

-  Helmholtz Centre for Environmental Research (UFZ), DE
-  Pensoft Publishers, BG
-  Wetlands International Europe, NL
-  University of Tartu, EE
-  Jan Evangelista Purkyně University in Ústí nad Labem, CZ
-  Iberian Center for River Restoration, ES
-  Portuguese Society for the Study of Birds, PT
-  RWTH Aachen University, DE
-  Strooming BV, NL
-  Environmental Action Germany (DUH), DE

## Objectives

The joint mission of SpongeBoost is to enhance the natural sponge function of wetlands and soils in Europe, aligning with EU policies for climate adaptation, disaster risk reduction and biodiversity. To achieve that, the project plans to employ both bottom-up and top-down approaches, which will foster networking and synergy at the regional and EU level.

SpongeBoost will focus on five main objectives:

- **Conduct a comprehensive literature review to create a standard reference catalogue** for securing and enhancing sponge functions in adaptation to climate change. This catalogue will integrate social, economic, technical, and ecological effects and serve as a widely used resource across Europe and beyond.
- **Build a knowledge base on existing approaches for enhancing sponge functions, and highlight the reasons for success or failure.** The goal is to enable regions and communities to replicate effective transformative solutions. Meanwhile, the consortium is to facilitate networking initiatives with other projects and identify suitable pilot sites for monitoring long-term success using the results of previous projects.
- **Work on the implementation, tests, refinement, and adjustment of best practices and innovative solutions** through EU-wide case studies. The goal is to enhance climate resilience to extreme events and enable upscaling from local to EU levels.
- **Develop a roadmap with practical tools** to empower stakeholders, drive transformative change, and integrate sponge solutions into regional, national and European climate adaptation processes to achieve EU Green Deal targets.
- **Connect communities and compile online resources for climate change adaptation.** The goal is to facilitate access and combine a library of tools for restoration and share research findings on soil, water, and groundwater interconnection for replication across Europe.

## Project coordinator

**Mathias Scholz**, HELMHOLTZ Centre for Environmental Research (UFZ)

## Duration

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