

## Nature-based Solutions for Mountain Villages

The NBS4MOV aim to apply the NBS technology of green walls for wastewater treatment as part of the **redevelopment of a small mountain village** by going all the way down to the building scale on multiple fronts: water management and energy aspects, without neglecting slope stabilization, landscape value, economic attractiveness of buildings, and data collection with which to monitor and manage properties and infrastructure.

The working group was born from the union of engineers and architects to propose a **multidisciplinary redevelopment** plan, identifying areas of interest for the realization of the project developed thanks to the data collected through experimental campaigns on pilot plants.

From previous research experiences, interactive thematic maps will be developed to classify areas according to resource availability and land conformation.

Within a case study, an architectural design managed through Building Information Modeling (BIM) technology will be formulated by integrating the installation of a green wall demonstrator specifically redesigned for water management in an upland environment and terracing for stormwater management.

The installation of IoT sensors that facilitate the management of autonomous mountain and energy communities will be planned. This will be proposed to stakeholders for installing in-situ demonstrators and presented on online platforms that encourage enduser input with co-design workshops and stimulate interest from public funders.

### PROJECT DURATION

14 months

From 13/11/2023 to 12/01/2025

### FUNDING INSTRUMENT

The NODES Academic PoC Call intends to finance innovative projects developed by university research groups which have as their object solutions/technologies consistent with the NODES themes, and in particular with the Spoke Themes, which guarantee a socio-economic impact on the territory of the ecosystem.

### BUDGET

**NBS4MOV** is 100% financed by NODES, a project financed by the MUR as part of the PNRR - Mission 4.

The total budget of the project amounts to **106.755,21€**.

Scientific Manager for DIATI:

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