Acronym – KARST FIREWALL 5.0

Title – Innovative Ecosystem-Based Climate Change Adaptation in Karst. Promoting wildfire resilient landscape embracing industry 5.0 approach

Scientific coordinator – Francesco Musco

Department – Department of Architecture and Arts

Iuav role – Lead Partner

Project Partners

- Infordata Sistemi Ltd (Italy)
- Municipality of Duino Aurisina (Italy)
- Municipality of Miren-Kostanjevica (Slovenia)
- Association for Culture and Education PiNA (Slovenia)
- Research Centre of the Slovenian Academy of Sciences and Arts (Slovenia)

Duration – 24 months

Start – 15/04/2024

Closure – 14/04/2026

Project budget – € 1 061 955.44

Iuav budget – € 216 888.00

Funding to Iuav – € 216 888.00

Source of funding – Interreg VI-A Italia-Slovenia 2021-2027 - Standard Call No. 02/2023

Description – The Karst Firewall 5.0 project addresses two challenges in the program area: wildfires and their governance. It aims to develop innovative action plans to preserve the health of the Karst region and maximize its resilience, with a forward-looking approach. Wildfires in the Karst region are primarily a result of ongoing climate change, as indicated by studies attributing changes in the wildfire regime to climate change. Current firefighting and wildfire management strategies are becoming less effective, necessitating new adaptive approaches.

Objectives – This project integrates two broad umbrella concepts: socio-ecological and socio-technological systems. It aims to facilitate increased dialogue and collaboration among stakeholders directly involved in wildfire response and management on both sides of the border, as well as among actors from various sectors, including the broader community affected by wildfires. The Karst Firewall project could significantly contribute to the development of an effective cross-border mechanism for wildfire prevention and management, given the complementary roles played by all involved actors, from individual citizens and land users to high-level decision-makers.

Additionally, the project involves the development and use of innovative digital systems employing advanced technologies such as drones, satellite imagery, predictive AI algorithms, and "electronic noses" for monitoring wildfire risk and providing support to first responders. Cross-border collaboration for the adoption of these technologies will promote more effective cross-border prevention systems and management protocols, aligning with the emerging Industry 5.0 approach.

Interreg Italia-Slovenija
Cofinanziato dall'Unione europea
Sofinancira Evropska unija