

# LOCALIENCE- Developing resilience against extreme weather threats caused by climate change at local level in Central Europe

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Climate change is increasing the frequency and intensity of extreme weather events across Central Europe, placing growing pressure on local communities, municipalities, and disaster-management systems. While national-level monitoring and response capacities are often well developed, local actors frequently face limitations in preparedness, communication, and coordination.

These limitations are particularly evident during rapidly evolving or compound hazard situations, where decision-making must take place under time pressure, incomplete information and constrained local resources. As a result, municipalities and first responders often rely on informal practices and personal experience rather than structured, interoperable procedures.

The Interreg Central Europe Programme's LOCALIENCE project addresses this gap by strengthening cooperation between disaster-management authorities, municipalities, civil society organisations and local communities. The project explicitly focuses on the local level as the critical interface where national warning systems, institutional responsibilities and community responses converge.

LOCALIENCE applies a multi-level and participatory approach, combining analytical tools, capacity-building activities and real-life pilot actions. This approach recognises that local resilience cannot be improved through isolated interventions, but requires the parallel development of knowledge, skills, governance arrangements and practical cooperation mechanisms.

Core project outputs include the development of an Extreme Weather Catalogue, a performance appraisal system for evaluating local cooperation, tailored training syllabuses on multi-hazard events and nature-based solutions, and a structured coaching process supporting municipalities. Together, these outputs form an integrated toolkit supporting both preventive planning and operational preparedness at local and regional level.

These tools are complemented by five pilot actions implemented in Austria, Czechia, Hungary, Slovenia and Poland, testing locally adapted solutions for improving early warning, risk communication, community-based preparedness, decision-support and crisis management through participatory methods, technological tools and experiential learning approaches. The pilots function as real-world laboratories, enabling the testing of concepts under actual institutional, legal and societal constraints.

A key innovation of LOCALIENCE lies in its emphasis on user-centred design and co-creation. Local stakeholders are actively involved in analysing risks, designing solutions and evaluating their effectiveness, ensuring that tools respond to real operational needs. This participatory methodology strengthens ownership, improves trust between institutions and communities, and increases the likelihood that newly developed tools will be adopted beyond the project duration.

Transnational peer-review visits and transfer workshops further support learning across borders and promote the replication of successful practices beyond pilot regions. These mechanisms also enable the identification of common structural challenges and transferable governance solutions across different national disaster-management systems.

The project demonstrates that strengthening local resilience requires more than technological solutions: effective communication, trust-building, capacity development and inclusive governance are equally

critical. In particular, the findings highlight the importance of aligning national warning and response frameworks with the decision-making capacities and responsibilities of municipalities.

By bridging the gap between national systems and local capacities, LOCALIENCE provides practical, transferable insights for disaster risk reduction policies and contributes to more resilient communities across Central Europe. The project's results offer valuable input for policymakers, training institutions and disaster-management authorities seeking to enhance preparedness for extreme weather events in a changing climate.

Keywords: disaster management; extreme weather events; local resilience; municipalities; civil protection; multi-level governance; community-based approaches