

Gamifying tools to improve the resilience of Europe's historic areas to climate change

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Credit: AI-generated image ([disclaimer](#))

From droughts to heatwaves, climate change is putting Europe's cultural heritage and historic urban centers more and more at risk. If damaged, these valuable assets lose their historic value because they cannot be rebuilt. According to the European Commission, natural heritage sites cover about 18 percent of the EU's land.

Working towards a disaster risk management framework

Making our historic areas more resilient to [climate change](#) and natural hazards should be a requirement. An article published by the Multidisciplinary Digital Publishing Institute supports that "there is a need for frameworks, methods, and tools that provide better information and decision support for climate change adaptation and disaster risk reduction measures taken by heritage managers, urban planners, policymakers, and the general public. These frameworks need to take into account the unique physical, environmental, economic, social, cultural, and political aspects of historic areas, as well as the enabling conditions these areas provide for taking action."

Researchers of the EU-funded ARCH project are developing tools and methodologies to improve resilience in cooperation with the cities of Bratislava (Slovakia), Camerino (Italy), Hamburg (Germany) and Valencia (Spain). At the European Urban Resilience Forum held 19–20 October, they organized a game-based workshop to introduce two of these novel tools: Resilience Assessment Dashboard (RAD) and Resilience Measures Inventory (RMI). RAD is a web-based [tool](#) to carry out detailed or quick resilience self-assessments for historic areas. The RMI identifies appropriate opportunities to boost heritage areas' resilience.

Let's play a game with resilience tools

A news item posted on the project website described this occasion as "the perfect chance to gamify some of the project's innovative tools. The resulting game combined role playing and a fictional city setting called ARCHtopia to model how the two tools can help communities to assess and find appropriate approaches to boosting resilience in historic areas."

The players were assigned a role, including a heritage conservation manager, a professor with disaster risk management experience and a local business owner with a shop in a historic district. Each participant was given a set of exacerbated climate change risks in ARCHtopia's historic areas. They had to evaluate the city's level of resilience based on their assigned roles. "The exercise demonstrated how the ARCH Resilience Assessment Dashboard helps users to perform [resilience](#) self-assessments for historic areas," explained the news item. "In a real-world context, using the dashboard will be a guided process that leads users to further recommendations for the use of other ARCH tools and methods."

The participants then filled any gaps they noticed while playing by negotiating a new action plan for ARCHtopia. This resulted in a debate amongst them, and an opportunity to experience the kind of information the RMI provides to actual communities.

"The workshop demonstrated how these two tools complement each other, in that the ARCH Resilience Assessment Dashboard helps to identify potential gaps and areas for improvement, and the ARCH Resilience Measures Inventory helps to identify practical methods to make that improvement possible," concluded the news item. ARCH (Advancing Resilience of Historic Areas against Climate-related and other Hazards) ends in August 2022.

More information: ARCH project website: savingculturalheritage.eu/

Provided by CORDIS

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