

MAKING A CLIMATE-RESILIENT HISTORIC CENTER THROUGH PHYSICAL ACTIONS

Climate Adaptation in Regensburg (Klimaanpassung in Regensburg-KlaR) - Regensburg, Germany

1. DESCRIPTION

The City of Regensburg has implemented an applied research and pilot project aimed at strengthening the climate resilience of Regensburg's Old Town. The project focuses on reducing heat stress in historic public spaces, by designing and testing heritage-compatible climate adaptation measures, using temporary and reversible interventions co-developed with residents, experts and local authorities. The project will produce useful data for long-term redesign strategies.

2. CONTEXT THAT MOTIVATED THE PRACTICE

Regensburg's historic center is increasingly affected by urban heat-island effects. Dense mineral surfaces, limited vegetation, and the continued use of squares as parking areas intensify heat stress during summer months. While strict heritage protection regulations limit conventional options for improving the environment, there is a need to create innovative and reversible solutions capable of improving thermal comfort and habitability without compromising the Outstanding Universal Value of the World Heritage site.

3. APPROACH / METHOD

The 3-year project (2023–2026) is structured as a multi-phase, interdisciplinary process combining data-based analysis, heritage expertise, and participatory design:

- **Scientific diagnosis** using thermal aerial surveys and a city-wide analysis with detailed focus on two pilot squares (Alter Kornmarkt and Augustinerplatz).
- **Heritage compatibility assessment** applying an in-depth historical and monument analysis by conservation experts to define acceptable interventions.
- **Participatory co-design** through workshops with residents, advisory boards, and municipal departments, supported by facilitation and LEGO® Serious Play® methods to address conflicting interests (e.g. parking vs. climate adaptation) and to develop temporary climate adaptation measures for the two pilot squares.
- **Experimental implementation** of climate adaptation measures designed as temporary and reversible, allowing real-life testing in sensitive heritage contexts.
- **Involvement of diverse stakeholders** including multiple municipal departments, a scientific research partner, heritage experts, local organizations and residents.
- **Budget.** 63.6% funded by the German Federal Ministry for the Environment and 36.4% co-financed by the City of Regensburg.



Participatory co-design. Source: ©City of Regensburg

4. EXPECTED/IMMEDIATE/MEASURABLE EFFECTS

Expected effects

- Improved thermal comfort and usability of historic squares during summer.
- Increased public acceptance of long-term climate adaptation measures.
- Transferability of tested solutions to other public spaces in the Old Town.
- Use of project data as a basis for long-term redesign strategies (10–15 years).

Immediate effects

- Raised public awareness of climate adaptation and heat stress.
- Constructive dialogue between stakeholders with conflicting interests.
- Strong sense of ownership among participants, and resident's input directly informing the implementation.
- Better understanding of municipal planning processes by residents.

Measurable results

- Identification of precise heat hotspots and priority intervention areas resulting from a high-resolution thermal and microclimatic mapping of the Old Town and pilot squares.

5. KEY TAKEAWAYS

- The project demonstrates how climate adaptation and heritage protection can be reconciled in historic centers by using temporary and reversible interventions to enable experimentation in sensitive contexts.
- Habitability is improved by addressing heat stress in everyday public spaces.
- There is a strengthening of resident involvement in climate adaptation of historic centers, moving from consultation to real co-design.



Experimental implementation. Source: ©City of Regensburg

FOR MORE INFORMATION:

<https://www.regensburg.de/leben/umwelt/aktuelles-zum-thema-umwelt/klimaanpassung>

