

MISSIONE 4 ISTRUZIONE RICERCA

# Climate Resilient Strategies by Archetype-based Urban Energy Modelling

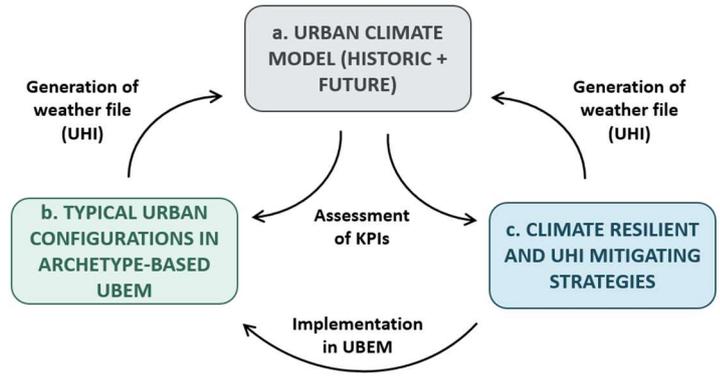
Newsletter 3 – February 2026



## ABOUT THE PROJECT

The CRiStAll project aims to tackle the challenges posed by rising temperatures and urban heat islands (UHIs) in Italian cities. By creating detailed climate datasets and using Urban Building Energy Modelling (UBEM) techniques, it seeks to enhance understanding of UHI impacts and inform the development of strategies to improve climate resilience. The main outcomes of the projects are the **Maps** of UHI intensity for typical districts in different periods of time and under the application of climate resilience strategies and the **Atlas** of typical urban configurations based on Italian archetypes.

## THE RESEARCH LINES

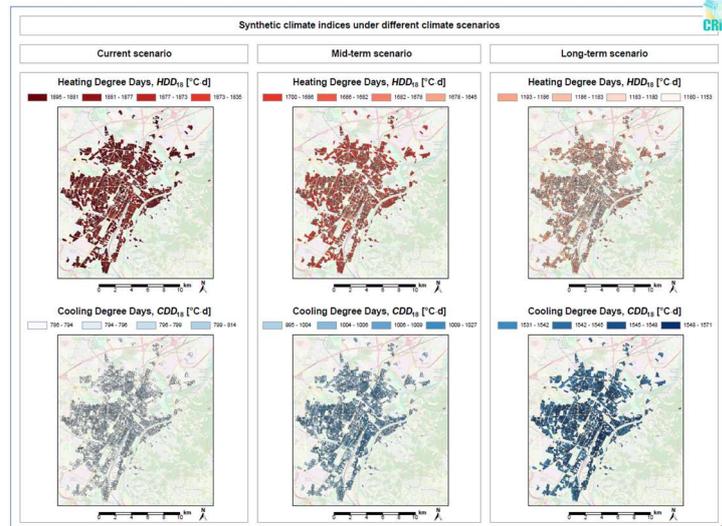


## Main Project Outcomes: Maps and Atlas

The project aims to develop **maps of UHI intensity** for selected case studies, enabling the analysis of their spatial and temporal evolution under climate change and resilience strategies, alongside an **atlas of typical urban configurations** enriched with **KPI assessments** across different **timeframes** and **scenarios**.

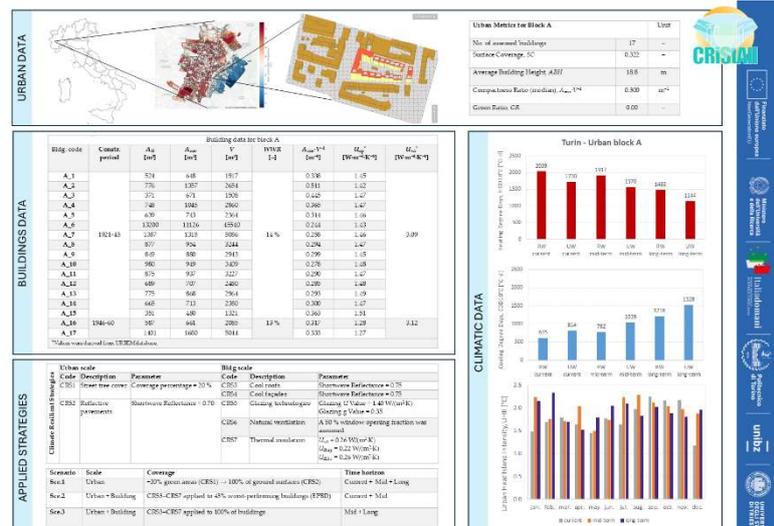
### MAPS

Heating and Cooling Degree Days maps for Turin under different climate scenarios



### ATLAS

Atlas of Turin's Urban Block A



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CRiStAll

# CRiStAll Local Workshops

As part of the dissemination and outreach activities of the CRiStAll project, **three local workshops** were held in early 2026 to present the project framework and showcase the research activities, methodologies, and results.

## Torino

**Politecnico di Torino**  
February 3<sup>rd</sup>, 2026



Participants included representatives of local authorities (Regione Piemonte, Municipality of Torino), and academic and research institutions (Politecnico di Torino and LINKS Foundation).

## Bozen-Bolzano

**Fiera CasaClima 2026**  
January 28<sup>th</sup>, 2026



The workshop was held at the Agenzia per l'Energia Alto Adige – CasaClima stand during the Klimahouse 2026 Fair.

## Trieste

**Università degli Studi di Trieste**  
February 12<sup>th</sup>, 2026



Participants included representatives from the Friuli Venezia Giulia Region, local civil society, and the regional climate agency. Simultaneous translation enabled the participation of Slovenian stakeholders.

## The Final Webinar

The CRiStAll project hosted the webinar *“Urban Heat Island and Climate Change: Models, Archetypes and Mitigation Strategies”* on Tuesday, 17 February 2026 (10:00-12:00) via Microsoft Teams, with more than **50 participants**.

**CRiStAll Webinar**

**Isola di calore urbana e cambiamento climatico: modelli, archetipi e strategie di mitigazione**

CRiStAll - Climate Resilient Strategies by Archetype-based Urban Energy Modelling (PRIN2022-PNRR)

Martedì 17 febbraio 2026  
10:00 - 12:00

**10:00 - 10:10**  
Saluti di apertura e introduzione al webinar  
Ilaria Ballarini, Politecnico di Torino

**10:10 - 10:30**  
Effetto dell'isola urbana sul clima regionale: cosa ci raccontano i modelli climatici ad alta risoluzione.  
Rita Nogherotto, Istituto di Scienze dell'Atmosfera e del Clima, Consiglio Nazionale delle Ricerche

**10:30 - 10:50**  
La simulazione energetica su scala urbana: dal singolo edificio all'ambiente urbano  
Angelo Zanello, Università degli Studi di Padova

**10:50 - 11:10**  
Aree urbane sottoposte a condizioni climatiche estreme in una prospettiva di cambiamento climatico  
Gianluca Pappacoppo, Università del Salento

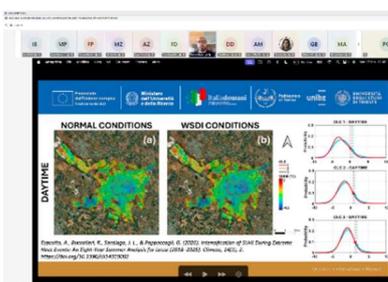
**11:10 - 11:30**  
Analisi di tecniche di mitigazione dell'isola di calore a mesoscala e degli impatti sull'ambiente costruito  
Ilaria Zini, Serena Palasca, Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile (ENEA)

**11:30 - 11:50**  
L'archetipo urbano per lo studio dell'effetto dell'isola di calore e nel contesto del cambiamento climatico - Il progetto CRiStAll  
Ilario Iannuzzi, Politecnico di Torino  
Giovanni Perrigato, Libera Università di Bolzano

**11:50 - 12:00**  
Sessione finale di domande e risposte

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*“We are on a highway to climate hell with our foot still on the accelerator.”*

United Nations, António Guterres (COP27, 2022)