

Sustainable Cooling in Cities

EBC ANNEX 97

The project aims to increase and spread international knowledge about effective heat mitigation and sustainable cooling in cities. Emphasis is being placed on the interaction between heat mitigation in outdoor spaces and cooling of buildings. It is developing and supporting the application of measures that serve the health, safety and well-being of people and that push energy efficiency and open the way to carbon neutrality.

The following project deliverables are planned:

- a state-of-the-art report and midterm report;
- a list of KPI's for evaluating urban cooling solutions and their impact of people;
- guidelines for experimental and simulation methods;
- technology profiles and guidelines for climate-appropriate solutions;
- policy recommendations, including a policy brief;
- project summary report.

PROJECT OBJECTIVES

- 1** establishing a knowledge base on environmental quality criteria in indoor and outdoor spaces, as well as key performance indicators (KPIs) for urban cooling
- 2** evaluating and developing simulation and experimental methods to assess heat mitigation and cooling technologies
- 3** identifying and assessing solutions to improve heat mitigation in urban outdoor areas and cooling in buildings, with a focus on the interrelation of both measures
- 4** applying scientific research and results to real-world applications, identifying best practices for policymaking, and strengthening existing networks to amplify global adoption of sustainable cooling practices

INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) was established as an autonomous body within the Organisation for Economic Co-operation and Development (OECD) in 1974, with the purpose of strengthening co-operation in the vital area of energy policy. As one element of this programme, member countries take part in various energy research, development and demonstration activities. The Energy in Buildings and Communities Programme has co-ordinated various research projects associated with energy prediction, monitoring and energy efficiency measures in both new and existing buildings. The results have provided much valuable information about the state of the art of building analysis and have led to further IEA co-ordinated research.

EBC VISION

By 2030, near-zero primary energy use and carbon dioxide emissions solutions have been adopted in new buildings and communities, and a wide range of reliable technical solutions have been made available for the existing building stock.

EBC MISSION

To accelerate the transformation of the built environment towards more energy efficient and sustainable buildings and communities, by the development and dissemination of knowledge and technologies through international collaborative research and innovation.



Temporary installation at the Vienna Climate Biennale 2024, as an impetus for the realization of climate-effective green and blue infrastructures, in particular urban rivers.

Photo: IBR&I, Vienna, 2024

Source: EBC Annex 97

Project duration

Ongoing (2025 - 2030)

Operating Agent

DI Dr Peter Holzer
Institute of Building Research & Innovation
Wipplingerstraße 23
1010 Vienna
AUSTRIA
Email: peter.holzer@building-research.at

Participating countries (provisional)

Australia, Austria, Belgium, Brazil, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Türkiye, United Kingdom, USA

Further information

www.iea-ebc.org
