

IEA EBC Annex 80 - Resilient Cooling

Webinar 4 Case Studies and Policy Recommendations



venticool
the platform for resilient ventilative cooling



Institute of
Building Research
& Innovation ZT-GmbH



20/09/2022

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IEA EBC Annex 80 - Resilient Cooling

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Federal Ministry
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Climate Action, Environment,
Energy, Mobility,
Innovation and Technology



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Series of webinars in cooperation with AIVC & venticool

1. Indicators to assess resilience of cooling in buildings [May 10, 15:00-16:15 CEST]
2. Future weather data and heatwaves [May 31, 16:00-17:15 CEST]
3. Examples of resilient cooling solutions [September 13, 15:00-16:15 CEST]
- 4. Case studies and policy recommendations [September 20, 16:00-17:15 CEST]**

<https://annex80.iea-ebc.org/>



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Today's Programme

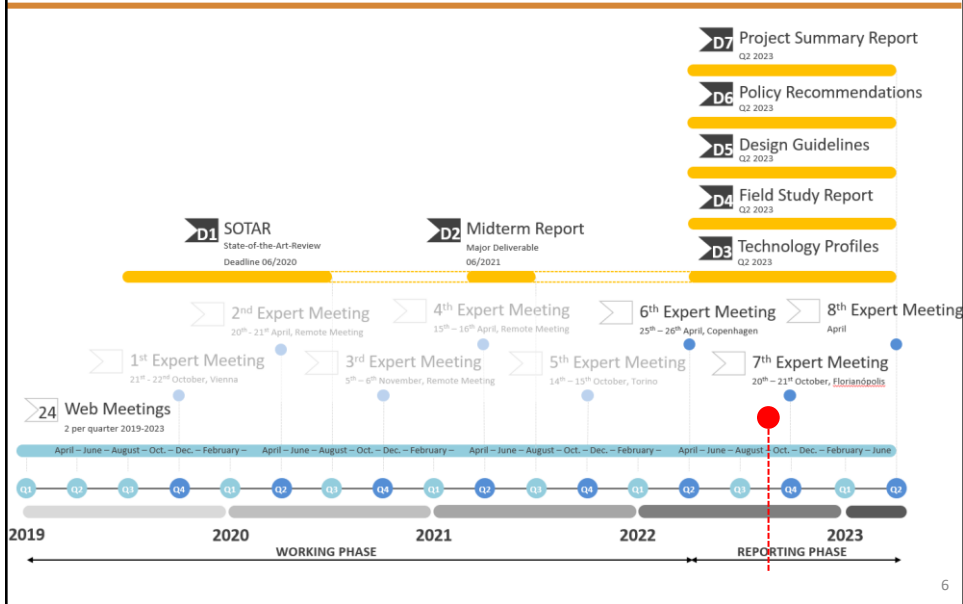
16:00	Introduction to Annex 80, AIVC & venticool Peter Holzer, Operating Agent EBC Annex 80, Institute of Building Research & Innovation, AT	16:45	Summer comfort in Belgian dwellings without active cooling: a case study Margot De Pauw, Thomas More, BE
16:05	Key Findings from Annex 80 Policy Actions Ronnen Levinson, LBNL, US	17:00	Questions and answers
16:20	Overview of Annex 80 Field Studies Dahai Qi, Université de Sherbrooke, CA Gerhard Hofer, e7 energy innovation, AT	17:15	End of the webinar
16:30	Natural Ventilation in Two Indian Case Studies Pierre Jaboyedoff, Effin'Art, CH		

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EBC Annex 80 Roadmap



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Annex 80 Objectives

*“Support a transition to an environment where **affordable low energy and low carbon** cooling systems are the mainstream and preferred solutions for cooling and overheating issues in buildings.”*

- A Assess benefits, potentials and performance indicators. Provide guidance on design, performance calculation and system integration.
- B Research towards implementation of emerging technologies. Extend boundaries of existing solutions.
- C Evaluate the real performance of resilient cooling solutions.
- D Develop recommendations for policy actions.

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Annex Subtasks

The Annex is structured in four subtasks:

A Fundamentals

B Solutions

C Field Studies

D Policy Actions

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Annex 80 Deliverables

D1	State-of-the-Art-Report	<ul style="list-style-type: none"> ▪ Research community and associates ▪ Real Estate developers ▪ Urban planning experts ▪ Policy makers 	OA, STA, STB, STC, STD
D2	Midterm Report	<ul style="list-style-type: none"> ▪ Research community and associates ▪ IEA and EBC Programme 	OA, STA, STB, STC, STD
D3	Technology Profiles	<ul style="list-style-type: none"> ▪ Building component developers and manufacturers ▪ Architects and design agencies ▪ Engineering offices and consultants 	STB
D4	Field Studies	<ul style="list-style-type: none"> ▪ Building component developers and manufacturers ▪ Architects and design agencies ▪ Engineering offices and consultants ▪ Real Estate developers 	STC
D5	Design and Operation Guidelines	<ul style="list-style-type: none"> ▪ Architects and design agencies ▪ Engineering offices and consultants ▪ Real Estate developers 	STA, STB, STC
D6	Recommendations for policy actions, legislation and standards	<ul style="list-style-type: none"> ▪ Policy makers ▪ Legal interest groups ▪ Experts involved in building energy performance standards and regulation 	STD
D7	Project Summary Report	<ul style="list-style-type: none"> ▪ Research community and associates ▪ IEA and EBC Programme ▪ Real Estate developers ▪ Policy makers 	OA, STA, STB, STC, STD

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Annex 80 Publications

1. **“Developing an understanding of resilient cooling: a socio-technical approach City and Environment Interactions”** (Wendy Miller et al; published in Elsevier City and Environment 2021) <https://doi.org/10.1016/j.cacint.2021.100065>
2. **“Resilient cooling of buildings to protect against heat waves and power outages: key concepts and definition”** (Shady Attia et al; published in Energy and Buildings 2021) <https://doi.org/10.1016/j.enbuild.2021.110869>
3. **“Resilient cooling strategies - a critical review and qualitative assessment”** (Chen Zhang et al; published in Energy and Buildings 2021) <https://doi.org/10.1016/j.enbuild.2021.111312>
4. Report of Thermal Conditions Task Group **“Framework to evaluate the resilience of different cooling technologies”** (Shady Attia et al; published) <http://dx.doi.org/10.13140/RG.2.2.33998.59208>

