

## Foreword

Welcome to the July 2025 edition of our biannual newsletter! As always, we're delighted to bring you the latest updates, insights, and developments from our latest activities. Looking ahead, we're thrilled to announce several major events on the horizon, including:

- the 45<sup>th</sup> AIVC – **11<sup>th</sup> venticool Conference in Montreal this September**,
- the AIVC 2026 workshop in Madrid next April, and
- the 46<sup>th</sup> AIVC – **12<sup>th</sup> venticool Conference in Incheon, Korea**, set for September–October 2026.

Reflecting on the past months, we're pleased to share highlights from the 11<sup>th</sup> meeting of the Advisory Board of Practitioners for venticool held in March, as well as our webinar on thermal resilience to overheating, held on May 5, 2025. We're also proud to bring you the latest updates from Annex 97: Sustainable Cooling in Cities. And to round out this edition, don't miss the product news from our partners showcasing new advancements in the industry.

To stay informed about our activities, be sure to visit our [website](#), follow us on [LinkedIn](#) and [Bluesky](#), and read our monthly newsletter, "[Energy Efficiency and Indoor Climate in Buildings](#)."

We hope you enjoy this edition and look forward to welcoming you to our future events!

The venticool team

## 21-22 April 2026, AIVC Workshop, Madrid, "Climate Change, Ventilation and Resilience"

The Air Infiltration and Ventilation Centre (AIVC) together with the Eduardo Torroja Institute for Construction Science (CSIC) (IETcc-CSIC) are organising a workshop entitled "**Climate Change and Resilient Ventilation**" to be held on **21-22 April 2026 in Madrid**.

The workshop will provide an opportunity for Spanish researchers and professionals, as well as international experts, to present and discuss recent advances in relation to the challenges that climate change imposes on buildings, related to indoor environmental quality, ventilation, human health and sustainability.

This workshop is part of a series of annual international workshops organised by AIVC in collaboration with international research centres. These events also focus on local issues related to ventilation and infiltration as part of the knowledge generation process. At the Madrid workshop, the following **topics** will be discussed: **Ventilation systems and climate resilience; Indoor Environmental health; Assessment of IAQ in naturally ventilated dwellings; IAQ remediation by smart materials and air cleaning; Sustainable cooling in cities; Personalised Environmental Control Systems (PECS); Case studies.**

The workshop is organised by the **IETcc-CSIC** together with the **AIVC**, with the collaboration of **venticool** and **INIVE**.

The workshop will take place at the Eduardo Torroja Institute for Construction Science, 4 Serrano Galvache St., Madrid 28033.

Participation in the workshop is **free**, but registration is required.

The workshop will be sponsored by companies in the sector to be specified later. **To participate as a sponsor**, please contact [Pilar Linares Alemparte](#).

In case you are interested **to contribute with a presentation**, please contact [Pilar Linares Alemparte](#).

Details on the programme, speakers, registration, and more will be announced soon [here](#)! Stay tuned!

## In this issue

- > Foreword
- > 21-22 April 2026, AIVC Workshop, Madrid, "Climate Change, Ventilation and Resilience"
- > 24-26 September 2025, AIVC – ASHRAE IEQ – venticool – TightVent joint conference, Montreal, Canada
- > 30 September – 1 October 2026, AIVC – venticool – TightVent joint Conference, Incheon, Republic of Korea
- > Latest Developments from the new Annex 97/Task 5 "Sustainable Cooling in Cities"
- > Feedback from the 11<sup>th</sup> meeting of the Advisory Board of Practitioners for Venticool
- > Webinar Recordings available!
- > Product news

## 24 – 26 September 2025, AIVC – ASHRAE IEQ –venticool– TightVent joint Conference, Montreal, Canada

The conference “IEQ 2025: Rising to new challenges: Connecting IEQ to a sustainable future”, organized by ASHRAE and AIVC, will be held in Montreal, Canada on 24-26 September 2025. The conference will also be the **11<sup>th</sup> venticool** and **13<sup>th</sup> TightVent conference**.

This conference provides the opportunity to learn, network and engage with IEQ professionals dedicated to advancing the fields of indoor environmental quality. Emphasis is placed on the growing understanding of occupant response to indoor environment elements (thermal, air quality, lighting and acoustics) while enhancing resilience in a changing climate. Seminars are led by experts from around the world representing AIVC, ASHRAE and many other partnering organizations.

### Conference Topics

- Performance Metrics: For all aspects of IEQ
- Occupant Behavior: How behavior impacts IEQ and how IEQ impacts behavior - psychological dimensions of IEQ
- Smart Sensors, Data and Controls: Sensor properties, data management, cybersecurity, applications, commissioning, equivalence
- Resilience and IEQ: Responding to climate change and disasters
- Ventilation: Mechanical, passive, natural and hybrid systems
- Air Tightness: Trends, methods and impacts
- Thermal Comfort: Dynamic approaches, health impacts and trends acoustics/lighting, the visual/auditory aspect
- The Environment Around Us: Acoustics, lighting, glazing, interiors and impacts upon wellness
- Policy and Standards: Trends, impacts, implications
- HVAC and IEQ in a post-COVID world
- Ventilation and building decarbonization
- Lighting and Acoustics: How can the outside be brought inside or vice versa

- Lighting Performance and Metrics
- Noise: How the environmental impact can be mitigated
- IEQ in Indigenous Communities

### Keynotes

- A Performance Based Rating Ecology for Residential IAQ Management from IEA-EBC Annex 86, *Jelle Laverge*
- Community Engaged Frameworks lead to Healthy and Sustainable Indoor Environments, *Sarah Haines*
- Healthy and Resilient Indoor Environments – Applied Research in Canadian Buildings, *Grace Zhou*
- Health-based IAQ design, *Livia Mazzarella*

### Workshops

- Dimensions of Indoor Environmental Quality for Healthy Aging in Place
- Non-Energy Impacts: Exploring the Nexus of IEQ and Decarbonization in Residential Buildings
- Indigenous Perspectives and Community-Led Approaches to Shaping Indoor Environments
- Real-life examples of applying ASHRAE Standard 241 "Control of Infectious Aerosols" and Guideline 44 "Protecting Building Occupants from Smoke During Wildfire"
- IEA EBC Annex 86: a Rating Ecology for IAQ Management in Residential Buildings
- Achieving Healthier Buildings with Lower Energy Use
- IEA-EBC Annex 78 Supplementing Ventilation with Gas-phase Air Cleaning, Implementation and Energy Implications
- Bedroom Environmental Quality impacts our Sleep, Health and Well-being
- Unlocking energy efficient ventilative cooling through emerging CEN & ISO standards

More information can be found [here](#).

## 30 September – 1 October 2026, AIVC – venticool – TightVent joint Conference, Incheon, Republic of Korea

The 46<sup>th</sup> AIVC conference “Innovations in Smart Ventilation and IEQ for Resilient and Adaptive Buildings” will take place on September 30 & October 1, 2026 in Incheon, Republic of Korea. This international event will be held jointly with the **12<sup>th</sup> venticool Conference** and the **14<sup>th</sup> TightVent Conference**.

The conference is organized by **INIVE** on behalf of the **AIVC**, **TightVent** and **venticool** in collaboration with the Korean Institute of Civil Engineering and Building Technology (**KICT**) and the Korean Institute of Architectural Sustainable Environment and Building Systems (**KIAEBS**).

The conference will feature a mixture of presentations selected from the call for papers & topical sessions as well as invited contributions, all organized into well-prepared and structured sessions aligned with the conference theme and topics. In addition, the event will include an exhibition from industry, offering attendees the opportunity to engage with leading partners showcasing innovative solutions and technologies.

### Conference Topics

#### **Smart ventilation and IEQ (Indoor environmental quality)**

- Sensor-based real-time IAQ monitoring and control systems
- Integration of ventilation with smart building management systems (BMS)
- Whole-building energy modeling to evaluate IEQ strategies
- Energy efficient building technology
- Cutting-edge techniques for IEQ evaluation and assessment
- Application of innovative materials for smart ventilation and IEQ enhancement
- Occupant-responsive ventilation strategies
- Innovative HVAC systems for enhanced energy efficiency
- Impact of smart ventilation on health, comfort, and productivity
- Standards, policies and legislation

#### **Building and ductwork airtightness**

- Measurement techniques for building and ductwork airtightness
- Innovative sealing materials and construction practices
- Effects of air leakage on HVAC performance and energy use
- Long-term performance and durability of airtight construction
- Airtightness requirements in building codes and regulations

#### **Ventilative cooling - Resilient cooling**

- Climate adaptation and urban resilience through ventilative cooling
- Performance evaluation of ventilative cooling in various climates
- Integration of ventilative cooling in zero energy buildings
- Occupant perception and satisfaction of IEQ

• Standards, policies and legislation  
More details — including the call for abstracts and topical sessions — will be announced soon [here](#). Stay tuned!

## Latest Developments from the new Annex 97/Task 5 “Sustainable Cooling in Cities”

Since the start of the preparation phase began in January 2025, EBC Annex 97 / Cities TCP Task 5 “Sustainable Cooling in Cities” has steadily gained momentum. A key event during this period was the two-day workshop held in Vienna, Austria on 10<sup>th</sup> and 11<sup>th</sup> of April 2025. Experts from a variety of countries gathered to discuss the structure of the upcoming work and agree on the main priorities for the following months.

One central focus of the meeting was coordinating the State of the Art Report. This document will provide a shared basis for the project by summarizing existing knowledge on urban cooling. During the meeting participants agreed on a common structure. The final report is expected to be completed by the end of September. If you would like to contribute to the State of the Art Report, please get in touch with the operating agent team. Their contact details can be found at the end of this article.

At the workshop, the subtask leaders also presented the current status of their workplans, outlining the structure and the thematic focus of each activity within their subtask:

- **Subtask A** focuses on establishing a shared knowledge base, including key concepts, performance indicators, and boundary conditions relevant to urban cooling.
- **Subtask B** addresses modelling and measurement methods, with an emphasis on applicability across scales and urban contexts.
- **Subtask C** reviews and analyses existing and emerging cooling strategies, aiming to identify effective and transferable approaches.
- **Subtask D** concentrates on the analysis of policies and frameworks, with the goal of developing guidance for decision-making at local and national levels. In addition to discussing and shaping the upcoming work several national research projects were presented during the workshop, illustrating the wide range of

approaches currently being explored in the field of sustainable urban cooling. Among others, these included studies on indoor – outdoor energy interactions, AI-based analyses of urban morphology, the development of smart materials for passive cooling and health impacts of extreme heat.

To support ongoing exchange, a LinkedIn group dedicated to Annex 97/Task 5 “Sustainable Cooling in Cities” has been launched. This space will serve as the main platform for sharing interim results, relevant events, and useful publications. It also offers an opportunity for informal networking and collaboration across countries and disciplines. Join the LinkedIn group [here](#).

With regular online meetings underway and the next preparation meeting scheduled for September 23<sup>rd</sup> in Montreal, Annex 97/Task 5 “Sustainable Cooling in Cities” is moving forward with a strong international team and a shared commitment to advancing knowledge and practice in sustainable urban cooling. For further information please contact [Peter Holzer](#) or [Philipp Stern](#).

## Feedback from the 11<sup>th</sup> meeting of the Advisory Board of Practitioners for venticool

On March 27<sup>th</sup>, 2025, representatives from the building cooling and ventilation industry along with architects and consultants convened for the 11<sup>th</sup> meeting of the Advisory Board of Practitioners (ABoP). Since early 2024, the board has been led by venticool, following its initial operation in collaboration with Annex 80 from 2021 to 2023. The Advisory Board was established to translate scientific research into practical application, fostering strong connections with industry professionals and integrating their on-the-ground insights into future research initiatives.

Ten participants attended the meeting, which focused on **the new international collaboration “EBC Annex 97/Cities TCP Task 5: Sustainable Cooling in Cities.”** After a brief welcome and introduction by Hilde Breesch (KU Leuven, BE), the session featured two expert presentations by Anna Wang (BMIMI, AT) who presented an overview of the Technology Collaboration Programme

(TCP) Cities & Philipp Stern (*IBR&I*, AT) with a presentation on the mission and content of Annex 97/Task 5.

The presentations were followed by an open discussion, during which participants addressed the following key questions:

1. Do you consider the outdoor environment (e.g. the surroundings of a building) in the design of your building or performance assessment of your cooling system? If so, on which scale (building, block, neighbourhood, city scale)? If not, why?

2. Which outdoor cooling solutions are you familiar with/have you already applied? Do you plan to apply? Appear promising?

What are the most important aspects missing (standards, case studies, evaluation and calculation methods, etc.)?

3. Which tools for simulation, planning for outdoor cooling solutions are you familiar with/have you already applied? Do you plan to apply? Appear promising? Which tools or methods are missing?

The **12<sup>th</sup> ABoP Meeting** is scheduled for **October or November 2025**, with the exact date to be announced. The meeting will focus on **“Drivers and Barriers for Resilient Ventilative Cooling.”** If you are interested in joining the ABoP, please contact [Maria Kapsalaki](#).

## Webinar Recordings available!

We’re happy to announce that the recordings of the AIVC-venticool webinar, “Improving thermal resilience of buildings to overheating: Lessons learned”, held on May 5, 2025, are available on our website!

### Featured Presentations:

- ReCOVer++ project: wrap up (Hilde Breesch, KU Leuven)
  - A novel indicator to assess thermal resilience of buildings to overheating (Douaa Al Asaad, KU Leuven)
  - How to design a resilient building? Lessons learnt from an architectural view (Joost Declercq, Archipelago)
  - Exploring the effect of different measures on thermal resilience: implications for design of HVAC systems and energy use (Debora Resta, Arcadis)
- Watch the recordings and download the slides [here](#) and stay updated by subscribing to our [YouTube channel](#).



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## What is venticool?

venticool is the international ventilative cooling platform launched in October 2012 to accelerate the uptake of ventilative cooling by raising awareness, sharing experience and steering research and development efforts in the field of ventilative cooling. In 2020, venticool decided to broaden its scope towards resilient ventilative cooling.

The platform supports better guidance for the appropriate implementation of resilient ventilative cooling strategies as well as adequate credit for such strategies in building regulations. The platform philosophy is to pull resources together and to avoid duplicating efforts to maximize the impact of existing and new initiatives. venticool joins forces with international projects (in particular IEA EBC annex 62 (ventilative cooling), annex 80 (Resilient cooling for buildings) and, more recently, annex 87 & 97 and organizations with significant experience and/or well identified in the field of ventilation and thermal comfort like AIVC ([www.aivc.org](http://www.aivc.org)) and REHVA ([www.rehva.eu](http://www.rehva.eu)). The platform has been initiated by INIVE with (International Network for Information on Ventilation and Energy Performance) with the financial and/or technical support of its partners.

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the platform for resilient ventilative cooling