venticool
the platform for resilient ventilative cooling

Newsletter

No 27 ● JANUARY 2026

Foreword

We are pleased to present the January 2026 issue of our biannual newsletter, offering an overview of recent work, key insights, and notable developments from across our activities.

The coming months promise to be particularly dynamic, with several important events planned. These include the AIVC 2026 workshop scheduled for April in Madrid, as well as the 46th AIVC- 12th Venticool Conference, which will take place in Incheon, Korea, in September–October 2026.

This issue also revisits notable events from the past months, including the workshop “Unlocking energy efficient ventilative cooling through emerging CEN & ISO standards”, which was held during the 45th AIVC–ASHRAE IEQ – 11th venticool joint Conference in September 2025 in Montreal. In addition, we report on the outcomes of the 12th meeting of the venticool Advisory Board of Practitioners, convened in November and bring you the latest updates from Annex 97: Sustainable Cooling in Cities.

Finally, readers will find updates from our partners, featuring the latest product innovations and technological progress within the sector.

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."

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) and venticool are organising a workshop entitled "**Climate Change and Resilient Ventilation**" to be held on **21-22 April 2026 in Madrid**.

The 1 ½ day workshop will provide an opportunity for Spanish and international researchers and professionals, 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 Instituto de Ciencias de la Construcción Eduardo Torroja, 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.

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"
> 30 September – 1 October 2026, AIVC – venticool – TightVent joint Conference, Incheon, Republic of Korea
> Workshop on Unlocking energy efficient Ventilative cooling in emerging CEN & ISO standards
> Latest Developments from the new Annex 97/Task 5 “Sustainable Cooling in Cities”
> Feedback from the 12th meeting of the Advisory Board of Practitioners for Venticool
> Paul D O’Sullivan on Thermal Comfort, Overheating & the Human Factor
> Product news

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

The 46th 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 **12th venticool Conference** and the 14th 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)*
• *Building and ductwork airtightness*
• *Ventilative cooling - Resilient cooling*
Important dates
• Authors **not interested in peer review** (abstract review only): **Submit abstracts by March 6, 2026**

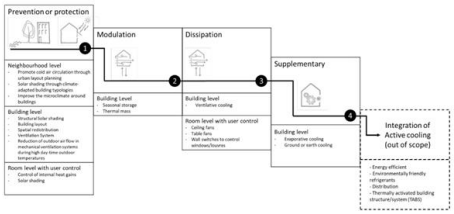
For further information please visit the conference website.

Workshop on Unlocking energy efficient Ventilative cooling in emerging CEN & ISO standards

Christoffer Plesner – VELUX A/S and Jannick Roth – WindowMaster International A/S
On September 24-26, 2025 we had the privilege of attending the 45th AIVC - ASHRAE IEQ joint - 11th Venticool conference titled "IEQ 2025: Rising to new challenges: Connecting IEQ to a sustainable future" held in Montreal, Canada. The event covered 3 days filled with valuable insights and good company.
Ventilative cooling is a sustainable and energy-efficient method of cooling buildings, utilizing natural, mechanical, or hybrid means to remove excess heat. This process harnesses the cooling potential of outdoor air to reduce indoor temperatures, thereby decreasing reliance on active cooling systems such as air conditioning. As outdoor temperatures rise, it is essential that guidelines, standards, and legislation support ventilative cooling to ensure future buildings are resilient and can properly mitigate overheating, thereby guiding designers effectively.
We therefore organized and chaired a 90-minute topical session titled "**Unlocking Energy-Efficient Ventilative Cooling through Emerging CEN and ISO Standards**," which attracted a good audience and led to lively discussions.
During the session, we presented the latest content of the **upcoming European Technical Specification (prCEN/TS), "Ventilative Cooling Systems – Design"**, a performance based framework to design buildings without mechanical cooling with a focus on early design stage.
Core Features of the Document:
• **9 design steps** - practical guidance for designing Free cooling systems (e.g. with openable windows)
• **Cooling ladder ethos** – that guides how to first design passively before moving to active cooling means
• **Ventilative cooling potential method** – assessing outdoor air cooling potential in the early design phase
• **Resilience checks** – enabling checks to enhance readiness for future extreme weather events (probably the first standard to include this)
• **Renewable energy for cooling method** – addressing elevated airflow rates beyond the standard - as found in Renewable Energy Directive (RED II/III)
In addition, we highlighted how ventilative cooling is addressed in the updated version of **CIBSE AM10** in the UK. Presenters **Paul D. O'Sullivan** (Munster Technological University, Ireland) and **Benjamin Jones** (University of Nottingham, UK) shared insights into the latest developments in international standards, drawing on well-researched design methods from UK, Irish, and international perspectives.
The discussions highlighted that ventilative cooling design should start with appropriate IEQ requirements, avoiding overly strict comfort criteria that may lead to oversized systems.
Participants emphasized the importance of accounting for thermal mass, resilience to extreme events such as power outages, and the surrounding microclimate. Reliable climate data were identified as essential for accurate early-stage performance evaluation.

Read the full article on our website.

Photo: From left to right: Christoffer Plesner (VELUX A/S), Paul D. O'Sullivan (Munster Technological University), Benjamin Jones (University of Nottingham) and Jannick Roth (WindowMaster International A/S)



Cooling ladder ethos from passive to active means

Latest Developments from Annex 97/Task 5 "Sustainable Cooling in Cities"

Patryk Czarnecki – Institute of Building Research & Innovation

Annex 97 / Task 5 entered 2025 in its official one-year preparation phase following a unanimous decision by both the IEA EBC Executive Committee and the IEA Cities TCP Executive Committee. With the preparation phase now completed, the Annex will proceed as planned into its three-year working phase.

Throughout 2025, the draft Annex Text was continuously refined in line with the evolving work plan. In parallel, a detailed work plan for the working and reporting phase was developed. This plan provides structured descriptions of the planned activities for each subtask, including objectives, methods and sources, expected results, target audiences, anticipated impacts, as well as schedules and milestones.

Deliverables

The Annex will produce:

- a State-of-the-Art Report on Sustainable Cooling in Cities
- KPIs for evaluating urban cooling solutions and their impact on people
- Guidelines for experimental and simulation methods
- Technology profiles and an urban cooling guideline
- Policy recommendations, including a policy brief

The content of the State-of-the-Art Report has been finalized and is currently under internal review. Submission will follow once editing is completed.

Cooperation with AIVC and venticool has been established to strengthen impact and outreach of research outcomes and deliverables. Through the IEA Cities TCP, a link to the Mediterranean Association of National Agencies for Energy Management (MEDENER) has been created. In addition, the IEA Secretariat was asked to support the establishment of further ties and cooperation with organizations from hot countries of the Global South. In total, 21 countries are currently involved in the Annex.

To support continuous exchange, a LinkedIn group dedicated to Annex 97 / Task 5 "Sustainable Cooling in Cities" has been launched. The group serves as the main platform for sharing interim results, relevant events and useful publications, and provides opportunities for informal networking and collaboration across countries and disciplines.

Join the LinkedIn group here.

Expert Meeting in Madrid, 23–24 April 2026

The first expert meeting will take place in Madrid on 23 and 24 April 2026, starting the day after the AIVC workshop on "Climate Change and Resilient Ventilation". Participants working in the field or interested in the topic are encouraged to plan their arrival accordingly. Further information on the AIVC workshop is available here.

For further information on Annex 97 / Task 5 please contact Peter Holzer or Philipp Stern.

12th Advisory Board of Practitioners Meeting: Focusing on Drivers and Barriers for Resilient Ventilative Cooling"

On November 4, 2025, representatives from the building cooling and ventilation industry, along with architects and consultants, convened for the 12th meeting of the Advisory Board of Practitioners (ABoP). Since early 2024, the board has been coordinated by venticool, following its initial operation in collaboration with Annex 80 from 2021 to 2023.

The Advisory Board was established to bridge scientific research and practical application, strengthening connections with industry professionals and integrating their real-world insights into future research initiatives.

A total of thirteen participants attended the meeting, which focused on Drivers and Barriers for Resilient Ventilative Cooling. After a warm welcome and introduction by Hilde Breesch (KU Leuven), the session featured two expert presentations:

- **Yves Lambert** (Renson): *Guidance for the EPBD recast. Opportunities for ventilative cooling*
- **Linda Toledo** (University of Strathclyde/ Eurac Research): *Reported Practices on Ventilative Cooling and Perceived Overheating in Low-Energy Homes*

The presentations were followed by an engaging open discussion, during which participants reflected on key questions such as:

1. Which **drivers and barriers** to resilient ventilative cooling have you identified through your professional experience or consider significant in general?
2. Based on Yves Lambert's presentation, what do you consider the most significant **opportunities** for resilient ventilative cooling in the context of the **EPBD recast** guidelines, and what are their anticipated **impacts**?
3. Linda Toledo's presentation highlighted the link between design, **occupant behaviour**, and comfort outcomes. To what extent did you consider occupant behaviour in the design of resilient ventilative cooling strategies or in the development of ventilative cooling components and systems?

Upcoming Meetings

- 13th ABoP Meeting: March/April 2026 (exact date to be announced)
- Meeting Topic: New AIVC Technote "Overheating assessment & ventilative cooling in national building codes".

Paul D O'Sullivan on Thermal Comfort, Overheating & the Human Factor

In the built environment, we have become highly proficient at designing for the heating season. We know how to insulate, how to seal, and how to decarbonise our heat sources.

However, as our climate shifts and building standards continue to evolve, a new challenge is emerging in cooler climates: cooling.

In an episode of Air Quality Matters, Paul D O'Sullivan of Munster Technological University discusses the complex relationship between ventilation, thermal comfort, and the increasing risk of overheating in modern buildings.

The conversation explores why overheating is becoming a critical design issue, how thermal comfort extends beyond temperature setpoints, and what this means for the future performance of our building stock.

Listen to the episode to learn more here.

Product new as provided by our partners

Ventilative Cooling with DucoWall Acoustic 150

In modern, well-insulated buildings, heat dissipation presents a growing challenge. Ventilative cooling offers a sustainable solution by harnessing natural airflows through strategically positioned ventilation louvres.

The **DucoWall Acoustic 150** demonstrates its effectiveness at the Equinix data centre in Düsseldorf, where intensive ventilation is crucial. This continuous louvre wall system combines natural high airflow with acoustic performance thanks to mineral wool within the aluminium blades. The result: optimal temperature regulation without relying entirely on mechanical cooling, reducing energy consumption. The system also provides visual screening for privacy and security whilst maintaining unimpeded airflow. Perfect for applications where ventilation, safety and noise reduction converge.

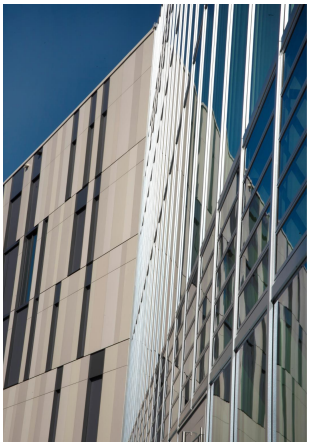
Discover the full case study: Equinix Data Centre ventilation solution.

The DucoWall Acoustic 150

Certified indoor air quality and safety – in one solution

WindowMaster and FIEGER have achieved new system certification under EN 12101-2 for a jointly tested louvre window solution, combining the WML 870 louvre drive and the FLW 32 louvre window. The certified unit delivers reliable smoke and heat extraction in case of fire while providing smooth, energy-efficient natural ventilation in daily operation. For specifiers, this means verified performance, simplified approval processes and reduced interface risks between drive and window. Available for both new builds and refurbishments, the solution supports modern façade design, strong sound insulation and a healthy indoor climate – helping projects meet today's rising requirements for comfort, safety and energy efficiency.

Read more here.



The FLW 32 louvre window

The WML 870 louvre drive

venticool partners

Diamond partners

.AGORIA

VELUX®

Gold partners

Reynaers Aluminium

Window Master® Fresh Air. Fresh People.

Associate partners

activehouse

CIBSE

Covenant of Mayors for Climate & Energy

EuroWindoor

REHVA Federation of European Heating, Ventilation and Air-conditioning Associations

Platform facilitator

INIVE

To join venticool please visit: https://venticool.eu/venticool-contact/

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) and REHVA (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.

Disclaimer