

Air Infiltration and Ventilation Centre

EBC ANNEX 5

This activity was established in 1979 under the name 'Air Infiltration Centre'; and undertook technical activities and provided information services with the task of minimizing air infiltration energy losses. In 1986, its name was changed to 'Air Infiltration and Ventilation Centre' (AIVC) to reflect the importance of the coupling of good airtightness with appropriate ventilation. Over time, the AIVC has been continuously evolving to respond to emerging concerns, challenges and opportunities. Now having completed its 40th year, the AIVC's main goal is to provide reference information on ventilation and air infiltration in the built environment with respect to efficient energy use and good indoor environmental quality (IEQ).



The latest project publication 'Ventilation Information Paper no. 39: A review of performance-based approaches to residential smart ventilation', published in 2019.

Source: EBC Annex 5

Objectives

The objectives of the AIVC are to:

- identify emerging issues on ventilation and air infiltration in new and renovated buildings;
- help to better design, implement, hand-over and maintain ventilation systems;
- provide discussion platforms, including conferences, workshops and webinars.

Deliverables

- Events: AIVC Annual Conference, one to two workshops per year on specific topics, with one to two webinars per year;
- Publications: conference and workshop proceedings, technical notes, contributed reports (typically one per year), and a biannual newsletter.

Progress

In 2019, the AIVC focused its work on eight projects, the 40th AIVC Annual Conference, a workshop and two webinars. Furthermore, the AIVC supported discussions and dissemination for 'EBC Annex 62: Ventilative Cooling', 'EBC Annex 68: Design and Operational Strategies for High IAQ in Low Energy Buildings' (p.44), 'EBC Annex 78: Supplementing Ventilation with Gas-phase Air Cleaning, Implementation and Energy Implications' (p.20), and 'EBC Annex 80: Resilient Cooling' (p.16). 2019 was also the year that AIRBASE, the Bibliographic Database of the AIVC containing more than 16 000 documents, became freely accessible for all users.

The aforementioned eight AIVC projects are entitled, 'Air Cleaning as Alternative for Ventilation', '40 Years of AIVC', 'Influence of Zoning on the Utilization of Residential Heat Recovery Ventilation', 'Rationale Behind Ventilation Requirements and Regulations', 'Integrating Uncertainties Due to Wind and Stack Effect in Declared Airtightness Results', 'Indoor Air Quality Metrics', 'Residential Cooker Hoods', and 'Competent Tester Schemes for Building Airtightness Testing'.

Following the completion of the AIVC's 'Smart Ventilation' project (2017–2018), the Ventilation Information Paper, 'VIP 39: A review of performance-based approaches to residential smart ventilation' was released in March 2019. This provides a review of performance-based approaches used around the world for the assessment of mainly smart ventilation strategies. The AIVC project '40 Years of AIVC', is expected to result in the Technical Note, 'AIVC after 40 years', highlighting the progress and outcomes over these 40 years with contributions from various AIVC Board experts.

The 40th AIVC Annual Conference was held in Ghent, Belgium, in October 2019. The theme of the conference was 'From energy crisis to sustainable indoor climate 40 years of AIVC'. 204 people from 28 countries attended the conference, and 13 topical sessions were organized during the event – the proceedings are available in AIRBASE. The event has also been a major discussion place for on-going projects, such as the current EBC R&D projects mentioned above. The conference also featured the official inauguration of the Indoor Environmental Quality Global Alliance (IEQ-GA) during a ceremony held on the evening of the first day of the event.

The workshop 'Quality ventilation is the key to achieving low energy healthy buildings' was held in March 2019, in Dublin, Ireland. The event was co-organized with the Sustainable Energy Authority of Ireland (SEAI) and drew over 80 participants. The AIVC also organized two webinars on ductwork airtightness measurements in April 2019 and kitchen ventilation in May 2019.

In order to achieve more interactions with related organizations, AIVC is a founding member of IEQ-GA. (www.ieq-ga.net). There is also a close collaboration with the Tight-Vent platform (www.tightvent.eu) and the venticool platform (www.venticool.eu).

Meetings

The AIVC Board met twice in 2019 as follows:

- Dublin, Ireland, in March, 2019, and
- Ghent, Belgium, in October 2019.

AIVC Newsletter

- March 2019 edition
- September 2019 edition

Project duration

1979–2021

Operating Agent

Peter Wouters, INIVE eeg, Belgium

Participating countries

Australia, Belgium, P.R. China, Denmark, France, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, R. Korea, Spain, Sweden, UK and USA

Further information and reports

www.iea-ebc.org



www.aivc.org
