

# Air Infiltration and Ventilation Centre

## EBC ANNEX 5

Since its launch in 1979, EBC Annex 5 'Air Infiltration and Ventilation Centre' has been continuously evolving to respond to emerging concerns, challenges and opportunities, with the main goal 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). While 2020 marked the Centre's 41st year of operation, the COVID-19 pandemic outbreak once again spotlighted the significance of ventilation, in this case as a major element in strategies for minimizing the risk of COVID-19 transmission. Therefore, without doubt the AIVC activities need to continue, which is supported by the decision of the EBC Executive Committee to approve the continuation of the AIVC at its November 2020 meeting for a new operating period from 2022 to 2026.

### Objectives

The objectives of the AIVC are to:

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

### Deliverables

- Events: annual conference, one to two workshops per year on specific topics, and one to two webinars per year;
- Publications: conference and workshop proceedings, technical notes and contributed reports [one per year], and a biannual newsletter

### Progress

In 2020, the AIVC mainly focused its work on eight projects. Due to the global pandemic it was not possible to organize in-person events, including the annual AIVC Conference and planned workshops. Instead, this resulted in the organization of nine webinars. Furthermore, the AIVC facilitated remote discussions and supported dissemination activities for EBC Annex 62 on ventilative cooling, EBC Annex 68 'Design and Operational Strategies for High IAQ in Low Energy Buildings', EBC Annex 78 'Supplementing Ventilation with Gas-phase Air Cleaning, Implementation and Energy Implications', and EBC Annex 80 'Resilient Cooling of Buildings'. The new AIVC website was also launched in 2020.



The AIVC Newsletter Special issue on COVID-19 was published in November 2020.

Source: EBC Annex 5

The eight aforementioned AIVC projects are entitled 'Ventilation, Airtightness and COVID-19', 'Temperature Take-back Effect in the Context of Energy Efficient Ventilation Strategies', '40 Years of AIVC', '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'.

The project '40 Years of AIVC' is expected to result in a Technical Note 'AIVC after 40 years', highlighting the progress and outcomes over these 40 years with contributions from various AIVC Board experts. The project 'Rationale Behind Ventilation Requirements and Regulations' is also expected to produce a Technical Note.

In May 2020, the AIVC released two Literature Lists on ventilative cooling and building and ductwork airtightness and collaborated with EBC Annex 68 to produce 'Contributed Report #19: Indoor Air Quality Design and Control in Low-Energy Residential Buildings - EBC Annex 68 | Subtask 4'. Moreover, following the launch of the AIVC's 'COVID-19' project, the first AIVC newsletter Special issue on COVID-19 was published in November 2020.

The AIVC organized nine webinars over the course of 2020: two on durability of airtightness (assessment through field measurements, and assessment through laboratory testing) held in January and February 2020; one on ventilative cooling held in March 2020; three on kitchen ventilation, ventilation requirements, moisture control held in May 2020; two on COVID-19 and building leakages held in November 2020; one on resilient ventilative cooling held in December 2020.

Editions of the AIVC newsletter were published in 2020 as listed below:

- March 2020,
- September 2020, and
- November 2020 (Special Issue on COVID-19).

To gain more interaction with related organizations and a stronger societal impact, the AIVC is a founding member of the Indoor Environmental Global Alliance ([www.ieq-ga.net](http://www.ieq-ga.net)). In 2020, a specific COVID-19 website section was created, including 'COVID-19 Information Centre' and 'Frequently Asked Questions'. There is also ongoing close collaboration with the TightVent platform ([www.tightvent.eu](http://www.tightvent.eu)) and the venticool platform ([www.venticool.eu](http://www.venticool.eu)).

### Meetings

The AIVC Board organized several online meetings in 2020 at the following times:

- April and May 2020, and
- September 2020.

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#### Project duration

1979–2026

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#### Operating Agent

Peter Wouters, INIVE eeg, Belgium

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#### Participating countries

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

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#### Further information and reports

[www.iea-ebc.org](http://www.iea-ebc.org)



[www.aivc.org](http://www.aivc.org)

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