

Air Infiltration and Ventilation Centre

ANNEX 5

Adequate ventilation provision is vital in providing acceptable indoor air quality. The goal of the 'Air Infiltration and Ventilation Centre' (AIVC) is to provide reference information on ventilation and infiltration in buildings, given that these mechanisms typically represent between 25% to over 50% of a building's total space heating (or cooling) needs. Inaugurated in 1979 with a focus on infiltration losses, its scope now expands to energy and indoor air quality impacts of all ventilation strategies in new and existing buildings.

Objectives

- Identify emerging issues on ventilation and infiltration in new and renovated buildings;
- Help better design, implement, hand-over and maintain ventilation systems;
- Provide discussion platforms, including conferences, workshops and webinars.

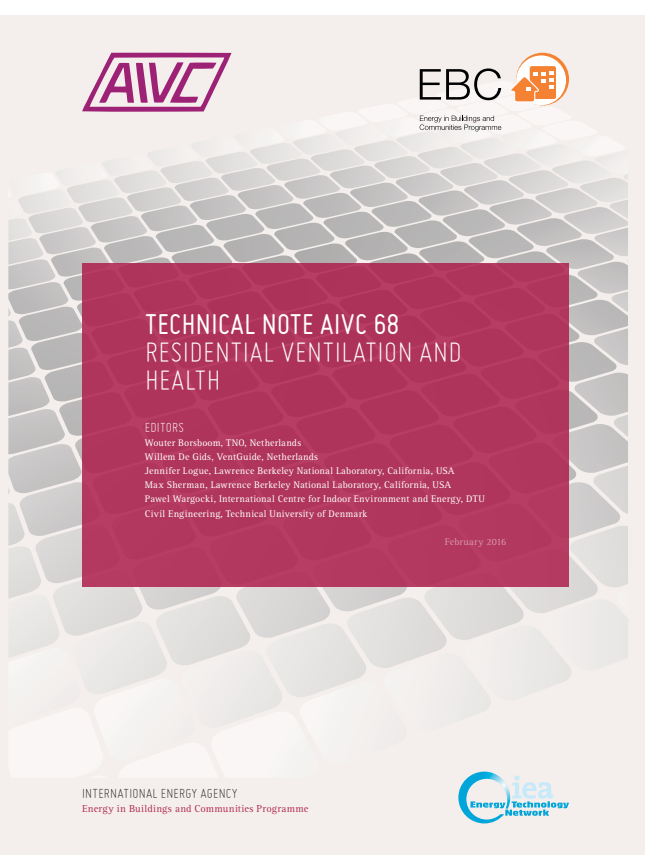
Deliverables

- Events: annual conference, 1 to 2 workshops per year on specific topics, 1 to 2 webinars per year;
- Publications: conference and workshop proceedings, technical notes and contributed reports (1 per year), biannual newsletter.

Progress

In 2016, the AIVC focused its work on three projects, the 37th Annual Conference, and supporting discussions and dissemination for EBC Annex 62 on Ventilative Cooling and EBC Annex 68 on Indoor Air Quality Design and Control in Low Energy Residential Buildings. The three projects have been progressed as follows:

- Residential Ventilation and Health: This project resulted in the publication of Technical Note 68 after review by experts and with the support of the Indoor Environmental Quality Alliance (www.ieq-ga.net). It has benefited from contributions of several authors and many structured discussions held during specific sessions at AIVC events, including feedback from the audience by using a voting system with prepared multiple-choice questions.
- Residential Cooker Hoods: Several topical sessions were also organised concerning the second project to discuss challenges regarding cooker hoods, from performance characterization to practical implementation and actual use.



The latest project publication – Technical Note 68 on Residential Ventilation and Health, published in 2016.
Source: EBC Annex 5

- Competent Tester Schemes for Building Airtightness Testing: Regarding this project, AIVC has pursued its efforts on the quality of building airtightness measurements in collaboration with TightVent, which is an information platform aiming at raising awareness on the building and ductwork airtightness.

During the CLIMA 2016 - 12th REHVA World Congress, held in Aalborg, Denmark, the AIVC has co-organised three specific sessions, one on building and ductwork airtightness, a second one on ventilative cooling in collaboration with EBC Annex 62, a third one on the '2020 Agenda for Ventilation and Air Infiltration'. In all of these sessions, contributors gave overviews of the status and challenges which served as basis for discussions on perspectives for future work, not only in R&D, but also in legislation, standards, dissemination, and so on.

The 37th AIVC Annual Conference was held in Alexandria, Virginia, USA, in collaboration with ASHRAE's IAQ triannual conference. 176 delegates from 21 countries attended the conference. EBC Annex 68 convened a dedicated session to discuss their approach and findings with a wider audience. This conference had a clear focus on indoor air quality, and confirmed the relevance of future research topics identified by the AIVC, including indoor air quality (IAQ) metrics, air cleaning, cooker hoods, and measurement methods.

Given the challenges faced by many countries to contain the energy losses by ventilation and infiltration, while providing a good indoor environmental quality, the Executive Committee of the IEA Energy in Buildings and Communities Programme approved the continuation of the AIVC for the period 2017-2021 at its 80th Meeting in November 2016.

Meetings

The AIVC board met twice in 2016:

- Aalborg, Denmark on 25th May, 2016, and
- Alexandria, Virginia, USA on the 14th September, 2016.

AIVC Newsletter

March 2016

September 2016

Project duration

1979–present

Operating Agent

Peter Wouters, INIVE eeig, Belgium

Participating countries

Belgium, Czech Republic, Denmark, France, Germany, Italy, Japan, R. Korea, the Netherlands, New Zealand, Norway, Spain, Sweden, UK, USA

Observers: Finland, Poland

Further information and reports

www.iea-ebc.org

www.aivc.org

