

# Air Infiltration and Ventilation Centre

## EBC ANNEX 5

EBC Annex 5 was first established in 1979 under the name “Air Infiltration Centre” undertaking technical activities and providing information services with the task of minimizing air infiltration energy losses. In 1986, the name was changed to “Air Infiltration and Ventilation Centre” to reflect the importance of the coupling of a good airtightness with appropriate ventilation. Over time, the AIVC has been continuously evolving to respond to emerging concerns, challenges, and opportunities. The Centre’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).

A key ambition of the AIVC is to convene integrated and combined activities, resulting in different information tools, for example webinars, workshops, position papers, technical papers. These are supported by a review process and result in an increased information dissemination impact. The following projects have been initiated since 2011 and are still ongoing:

- EPBD revision and ventilation
- Ventilation and Indoor Air Quality (IAQ) guidelines in context of high energy prices

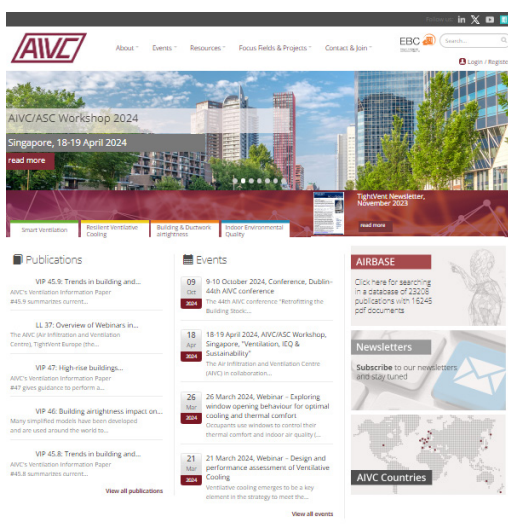
### PROJECT OBJECTIVES

- 1 enabling the production of high quality and influential documents of international status regarding energy efficient ventilation and air infiltration;
- 2 generating strategy and advice on air infiltration and ventilation related issues in new and renovated buildings;
- 3 communicating and disseminating information, including but not limited to conferences and workshops, webinars, databases and a high visibility web presence, in relation to smart ventilation, resilient ventilative cooling, building and ductwork airtightness and indoor environmental quality.

- Energy Recovery Ventilation
- Personalized Environmental Control Systems (PECS)
- Airtightness status at country level
- Ventilation status at country level
- Ventilation, airtightness and COVID-19
- Temperature take-back effect in the context of energy efficient ventilation strategies
- Supplementing ventilation with gas-phase air cleaning
- IAQ metrics
- TightVent Airtightness Associations Committee (TAAC)
  - Competent tester schemes for building and ductwork airtightness testing

Projects initiated since 2011 and are now completed:

- Rationale behind ventilation requirements and regulations
- IAQ and ventilation specifications in garages
- AIVC 40 years



Screenshot of the AIVC website

Source: The AIVC website

### INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) was established as an autonomous body within the Organisation for Economic Co-operation and Development (OECD) in 1974, with the purpose of strengthening co-operation in the vital area of energy policy. As one element of this programme, member countries take part in various energy research, development and demonstration activities. The Energy in Buildings and Communities Programme has co-ordinated various research projects associated with energy prediction, monitoring and energy efficiency measures in both new and existing buildings. The results have provided much valuable information about the state of the art of building analysis and have led to further IEA co-ordinated research.

### EBC VISION

By 2030, near-zero primary energy use and carbon dioxide emissions solutions have been adopted in new buildings and communities, and a wide range of reliable technical solutions have been made available for the existing building stock.

### EBC MISSION

To accelerate the transformation of the built environment towards more energy efficient and sustainable buildings and communities, by the development and dissemination of knowledge and technologies through international collaborative research and innovation.

- Integrating uncertainties due to wind and stack effect in declared airtightness results
- Residential cooker hoods
- Influence of zoning on the utilisation of residential heat recovery ventilation
- BIM and ventilation and infiltration
- Smart ventilation
- Ventilation and health
- Philosophy for setting building airtightness requirements
- Durability of building airtightness
- Development and applications of building air leakage databases
- Quality of methods for measuring ventilation and infiltration in buildings
- Testing, reporting and quality schemes for building airtightness
- Ventilative cooling
- Improving the quality of residential ventilation systems
- How tight and insulated ducts should be?

The following project deliverables are being produced:

- Events: an annual conference and 1 workshop per year on specific topics, and a number of webinars per year.
- Publications: conference and workshop proceedings, technical notes, information papers and contributed reports, biannual newsletter.

#### Project duration

Ongoing (1979 to present)

#### Operating Agent

Dr. Peter Wouters, INIVE eeig, BELGIUM

#### Participating countries (provisional)

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

#### Further information

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