



2nd announcement for the AIVC Workshop on Indoor Air Quality metrics

Brussels, Belgium

14-15 March 2017

Is ventilation *the* answer to indoor air quality control in buildings? Do we need performance-based approaches?

Context

Indoor exposure to contaminants should be minimized to avoid adverse health and comfort effects. Experience shows that this qualitative statement is difficult to translate into measurable terms, such as performance indicators or metrics, which can be used as a basis for defining and assessing requirements in regulations and standards while holistically reflecting indoor air quality. The simplest and most commonly used approaches rely on ventilation airflow rates determined by experts or codes. These approaches have fundamental shortcomings in practice for systems that do not have steady contaminant sources or do not provide a constant airflow rate, such as natural, hybrid, or demand-controlled ventilation. More sophisticated approaches can be based on health damage, pollutant exposures, or perceived air quality but they generally entail a number of assumptions about the pollutants of concern and occupant scenarios. Such methods could lead to useful metrics. However, as of today, there is no clear set of metrics that can be used to assess the overall ventilation performance of a building with regard to its indoor air quality, or used in standards or regulations.

Aim

This workshop aims to identify the pros and cons of performance-based approaches and metrics that can be considered to assess the IAQ performance of ventilation systems, as well as to draft guidelines for their use in standards and regulations.

Scope

The workshop addresses IAQ performance for all building types and ages, with all types of ventilation system (natural, mechanical, hybrid systems). It does not cover the relevance of the associated metrics in terms of health, comfort or building damage, but looks at their relevance for comparing system performance or strategies in terms of IAQ. It focusses on performance-based approaches, such as those that focus on the performance to achieve rather than on the techniques or systems to be implemented.

Target attendees

The attendees at this workshop are expected to participate, either through presentation, or in active discussions during each session. Target attendees are experts, professionals, or scientists researching ventilation or IAQ issues related to existing or potentially new IAQ performance approaches, such as metrics.

Workshop output

AIVC will produce a summary of the workshop on the advantages and disadvantages of performance-based approaches discussed by the workshop attendees. It will be accessible to both industry professionals and advanced practitioners.

Organisers

The workshop is organised by **INIVE** on behalf of the **AIVC** (Air Infiltration and Ventilation Centre).

This event is organized with the technical and/or financial support of the following organisations:



Overall concept for technical presentations and discussions

About one third of each session will be dedicated to discussions with the audience based on presentations, sometimes with the help of an interactive voting system to instantaneously collect the opinion of the attendees.

Keynote presentations will focus on the specifications and needs for performance-based approaches and associated IAQ metrics for building ventilation, which consider pollutants and sources of concern. The regular session presentations will review IAQ indices, analyze their pros and cons, and suggest improvements where necessary.

Topics addressed in presentations and discussions

- Factors that should influence IAQ assessment
- Is CO₂ indoor pollutant?
- The potential for, and limits of, CO₂ based indices, humidity or moisture, health damage, perceived air quality, air mixing behaviour, and pollutant distribution within a space
- The potential for, and limits of, combined indices
- Definition and use of rating methods for smart ventilation, DCVs, natural ventilation, etc. (equivalent ventilation principle)
- Barriers to performance-based standards (showing evidence of compliance, accounting for sources, sensors and controls, time-activity patterns)

Presentations & Speakers

The list of confirmed speakers is available at: <http://www.aivc.org/event/14-15-march-2017-workshop-brussels-ventilation-answer-indoor-air-quality-control-buildings-do>

Date and time

The workshop will begin at 09:15 on Tuesday 14 March 2017 and end at 13:00 on Wednesday 15 March 2017.

Registration and fee

Participants should enrol by returning the registration form available on the AIVC website and pay the registration fee before 1 March 2017. The workshop fee is 363 € (VAT included). This fee includes participation to the workshop, documentation, the lunches and coffee breaks of the workshop days. Registration fee is waived for speakers.

Language

English will be the official language. No translation is foreseen.

Venue and travel information

The workshop will take place in the Brussels Meeting Centre of the Belgian Building Research Institute (CSTC-WTCB) Boulevard Poincaré 79 (Poincarélaan 79), 1060 Brussels, Belgium. It is within walking distance of Brussels South train station, and not far away from the city centre (10-min walk). There are 6 trains per hour to Brussels airport (travel time about 25 minutes).

Sponsoring

This workshop receives financial support from the International Energy Agency's Energy in Buildings and Communities Programme (IEA-EBC) and the International Network for Information on Ventilation and Energy Performance (INIVE).

Secretariat

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