# Second announcement

Tight Vent Europe
BUILDING AND DUCTWORK AIRTIGHTNESS PLATFORM

AIVC

**Brussels, Belgium**
**BBRI offices**

## 28-29 March 2012

## International workshop

# Achieving relevant and durable airtightness levels: status, options and progress needed

International Energy Agency
Energy Conservation in Buildings and Community Systems Programme

INIVE

## Workshop organizers

The workshop is organized by the International Network on Ventilation and Energy Performance (INIVE) on behalf of the **Air Infiltration and Ventilation Centre** (AIVC) and **TightVent Europe** (the Building and Ductwork Airtightness Platform).

## Description of the workshop

Adequate ventilation as well as good envelope and ductwork airtightness represent a specific challenge for new or renovated nearly zero-energy buildings. Alone, they can represent over 50% of a building's total space heating (or cooling) needs, and their share often increases with increasing energy performance.

This is the reason why many issues have arisen in the past few years regarding regulatory and voluntary initiatives to improve envelope and ductwork airtightness, bringing forward apparently simple questions such as:

- Should there be specific airtightness requirements? If so, should they be differentiated with climate, building usage, and ventilation system type?
- Should there be a minimum level of air leakage?
- Are quality management approaches appropriate instruments to push and/or pull market players? What are the pitfalls to avoid? What can be learnt from pioneering experience in this field, including in the inspection of ventilation systems?
- How does airtightness change with time, and how does that affect the building's performance over its lifetime?

The objective of this workshop is to discuss those questions with key experts. It is divided into three parts:

- Philosophy for setting airtightness requirements: recommendations and pros and cons of various approaches
- Durability of seals and bonds: what we know and where we need to go
- Dealing with airtightness in the construction process: lessons learnt and potential for quality management approaches.

## Dates

Wednesday 28 and Thursday 29 March 2012.

## Language

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

## Fee

The workshop fee is 302.50 € (VAT included). This fee includes participation to the workshop, documentation, the lunches and coffee breaks of the 2 workshop days, and the walking dinner on Wednesday evening (more information will follow).

## Registration

Participants should enrol by returning the registration form available on the AIVC and TightVent websites and pay the registration fee before March 14, 2012.

## Programme

### First day, Wednesday March 28 2012

**09:30-10:00 Introduction**

- *Context, challenges and opportunities regarding airtightness*, Peter Wouters, INIVE EEIG, Belgium

**10:00-11:15 Session 1: Philosophy and approaches regarding airtightness requirements: country views**

- *Philosophy and approaches for airtightness requirements in the Netherlands*, Willem De Gids, VentGuide, Netherlands / Wouter Borsboom, TNO, Netherlands
- *Philosophy and approaches for airtightness requirements in Germany,* Heike, Erhorn-Kluttig, IBP, Germany
- *Philosophy and approaches for airtightness requirements in the UK*, Martin Liddament, VEETECH, UK

**11:30-13:00 Session 2: Philosophy and approaches regarding airtightness requirements: country views**

- *Philosophy and approaches for airtightness requirements in the USA*, Max Sherman, LBNL, USA
- *Philosophy and approaches for airtightness requirements in Denmark,* Alireza Afshari, Sbi, Denmark
- *Philosophy and approaches for airtightness requirements in Finland*, Timo Kauppinen, VTT, Finland
- *Airtightness requirements: a lawyer point of view*, Rik Honoré, Belgium

**14:00-15:30 Session 3: Durable airtightness performance: what we know and where we need to go**

- *Alternating loads – a method for testing the durability of adhesives in air tightness layers*, Thomas Ackermann, University of Applied Sciences, Minden, Germany
- *Changes in airtightness after 10-20 years*, Magnus Hansén, SP Technical Research Institute, Sweden
- *Seasonal variation of facade airtightness: field observations and potential impact in NZEB*, Willem De Gids, VentGuide, Netherlands / Wouter Borsboom, TNO, Netherlands
- *The DREAM project - Assessing the durability of envelope airtightness*, Benoit Michaux, BBRI, Belgium

**15:45-16:45 Session 4: Structured discussion: Pros and cons of various approaches for airtightness requirements - Recommendations and pitfalls to avoid**

- *Reasons behind the new approach to requirements in the energy performance regulation RT 2012*, Jean-Christophe Visier, CSTB, France

**16:45-17:15 Inspiring experience**

- *Can we learn from the Swedish quality approach to ductwork airtightness and the regular inspection of ventilation systems*? Johnny Andersson, Ramböll, Sweden

### Second day, Thursday March 29 2012

**09:00-10:40 Session 5: Dealing with airtightness in the construction process - Reliable airtightness testing and reporting**

- *UK experience with quality approaches for airtight constructions*, Martin Liddament, VEETECH, UK
- *Lessons learnt from the qualification of airtightness testers and regulatory QM scheme in France*, Florent Boithias / Sarah Juricic, CETE de Lyon, France
- *The Japanese airtightness certification framework for builders and testers*, Hiroshi Yoshino, Tohoku University, Japan
- *Achieving good airtightness in new and retrofitted army buildings*, Alexander Zhivov, USACE, USA

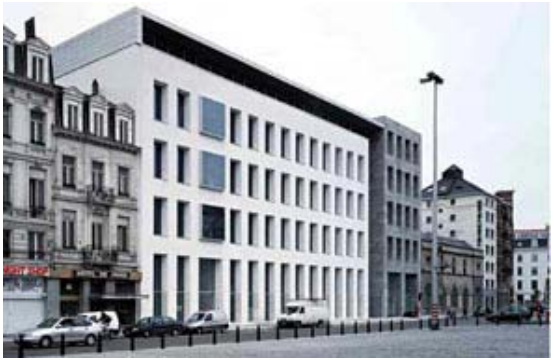
**11:00-12:30 Session 6: Dealing with airtightness in the construction process - Potential for quality management approaches**

- *From the drawing table to the implementation of appropriate construction details on site*, Mario Bodem, Ing + Arch, Germany
- *The development of quality guidelines in Finland*, Timo Kauppinen, VTT, Finland
- *United States New Construction Program Comparison – Can a Quality Management Program Guarantee Heating and Cooling Costs of $1 Per Day*? Jonathan Coulter, Advanced Energy, USA
- *A method to ensure airtightness of the building envelope*, Eva Sikander, SP Technical Research Institute, Sweden
- *Initial ideas for achieving reliable airtightness assessment in the Belgian context*, Xavier Loncour / Peter Wouters, BBRI, Belgium

**12:30-13-15 Workshop conclusions**

- *Highlights of the workshop and next steps within AIVC and TightVent,* Peter Wouters / Rémi Carrié, INIVE, Int.

## Venue



The workshop will take place in the offices of the Belgian Building Research Institute (CSTC-WTCB) Boulevard Poincaré 79, 1060 Brussels, Belgium.

It is within walking distance of Brussels South train station, and not far away from the city centre (10 min walking).

## How to get to the workshop?

If you come by plane or by train, the easiest way to get to the hotel is to go take a train to Brussels South station (Brussel Zuid – Bruxelles Midi).

By plane: trains run to the South Station every 15 or 20 minutes train from Brussels National Airport to Brussels South Station. Journey time: approx. 30 minutes. Fare: approx. 2.50 €. You can also take a taxi from the airport, but according to your arrival time, it can take longer than by train, due to traffic jam.

By train: the high speed trains stop at Brussels South station. 5 minutes by foot from the Brussels South Station. From the main hall, follow the direction 'Tour du Midi – Zuidertoren' and walk along the railways till the Boulevard Poincaré. Our offices are located on your left side.

By metro: Line 3 – Stop at Lemonnier. 2 minutes by foot to our offices. Our offices are just in front of you.

By car: our parking is not available for this workshop. We advise to use the paid private parking of the South Brussels Station (5 min by foot).

## Hotel reservation

As you have a metro stop (Lemonnier, line 3) just in front of our offices, we advise you to reserve an hotel in the city centre. The link to the following website http://www.hotelscombined.com/ can be very useful for you.

## About the AIVC

The **AIVC** activities are supported by the following countries: Belgium, Czech Republic, Denmark, France, Germany, Greece, Italy, Japan, Netherlands, New Zealand, Norway, South Korea, Sweden, USA.

Created in 1979, the Air Infiltration and Ventilation Centre (www.aivc.org) is one of the projects/annexes running under the Energy Conservation in Buildings and Community Systems implementing agreement, within the context of the International Energy Agency. With the support of 12 member countries as well as key experts and two associations (REHVA and IBPSA), the AIVC offers industry and research organisations technical support aimed at better understanding the ventilation challenges and optimising energy efficient ventilation.

## About TightVent Europe

TightVent Europe (www.tightvent.eu) aims at facilitating exchanges and progress on building and ductwork airtightness issues, including the organization of conferences and workshops. It fosters experience sharing as well as knowledge production and dissemination on practical issues such as specifications, design, execution, control, etc., taking advantage of the lessons learnt from pioneering work while keeping in mind the need for adequate ventilation.

TightVent Europe has been initiated by INIVE EEIG (International Network for Information on Ventilation and Energy Performance) with at present the financial and/or technical support of the following partners: Buildings Performance Institute Europe, BlowerDoor GmbH, European Climate Foundation, Eurima, Lindab, Retrotec, Soudal, Tremco illbruck, and Wienerberger.

## About INIVE

INIVE EEIG (**I**nternational **N**etwork for **I**nformation on **V**entilation and **E**nergy Performance) was created in 2001 as a so-called European Economic Interest Grouping. The main reason for founding INIVE was to set up a worldwide acting network of excellence in knowledge gathering and dissemination. At present, INIVE has 11 member organisations (BBRI, CETIAT, CIMNE, CSTB, ERG, ENTPE, IBP-Fraunhofer, SINTEF, NKUA, TMT US and TNO) (www.inive.org)

INIVE is coordinating and/or facilitating various international projects, e.g. the AIVC, the European portal on Energy Efficiency (www.buildup.eu), TightVent Europe and Dynastee (www.dynastee.info). INIVE has also coordinated the ASIEPI project (www.asiepi.eu, 01/10/2007 - 31/03/2010) dealing with the evaluation of the implementation and impact of the EU Energy Performance of Buildings Directive.

## Sponsoring

This workshop is receiving financial support from the Flemish Energy Agency (VEA) as part of a project dealing with the philosophy on building airtightness requirements.

The workshop is supported by REHVA and BUILDAIR.

## Workshop secretariat

Questions about the programme: Mr. Rémi Carrié, remi.carrie@inive.org
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