International workshop on

"Large scale national implementation plans for building airtightness assessment : a must for 2020!"

"We should start now to be ready in 2020"

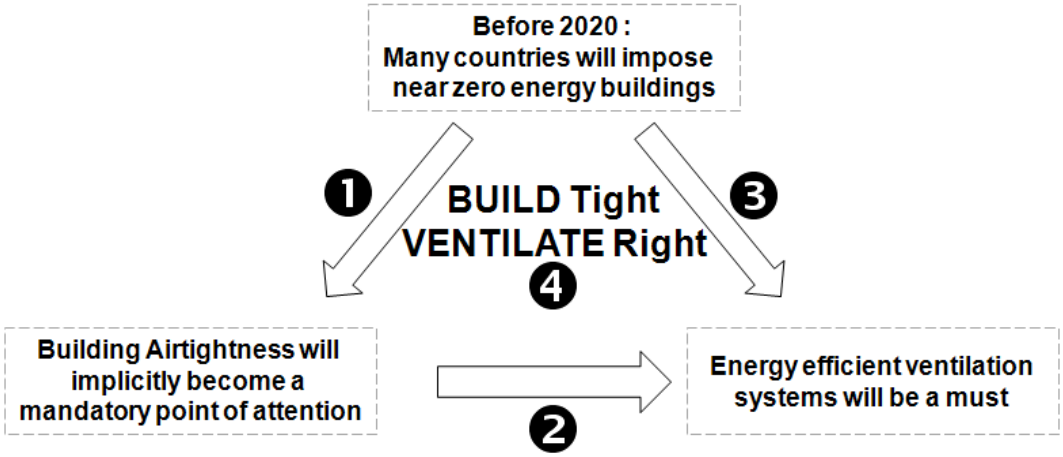
June 14-15 2010 in Hotel Crowne Plaza – Brussels (Belgium)

An initiative of AIVC and INIVE

Context for the workshop

It is expected that many countries will between 2015 and 2020 have regulations imposing requirements for new buildings which are **near-zero energy targets**. This has major consequences:

- Such strategies will for most climates automatically lead to specific attention to **building airtightness** (❶), including large scale measurements, challenges in terms of design and execution, quality issues, long term performances, ... This is a tremendous challenge.
- As a result of the increased attention for building airtightness, the need for appropriate, energy efficient, **ventilation systems** (❷)will grow. Issues as correct air flow rates, air quality, acoustics, draught, energy optimisation, economics, ... will have to be handled at large scale. At present, we know that many countries are faced with poor performances of most systems.
- So, indirectly, the move towards near-zero energy buildings will lead to a greater need for ventilation systems (❸).
- As a result, the expression already used in the eighties, i.e. 'Build Tight – Ventilate Right' is becoming a big reality(❹).



- In addition, there are the tremendous challenges for the existing building stock. Although there will be in most countries more time for implementation and, in absolute terms, probably less severe targets, more or less similar challenges are found for the existing building stock.

This international workshop aims to give a good overview of all the issues involved in building airtightness, with specific attention to planning aspects (session 2), execution (session 3) and evaluation (session 4).In session 5, attention will be given to the point of view of key stakeholders.

During the workshop, the European Platform on Building Airtightness will be launched and it is planned to have follow-up sessions on specific topics.

Dates

The workshop will start on Monday June 14 at 13.30 (registration and welcome coffee at 12.30) and will end on Tuesday June 15 at 17.00

Location

Crowne Plaza Brussels Le Palace
Rue Gineste 3, BE-1210 Brussels, Belgium
Website : http://www.crowneplazabrussels.be

Hotel reservation

A contingent of rooms in hotel Crowne Plaza Brussels Le Palace has been taken until 21 May 2010. To benefit of the preferential rate of 159 € (breakfast excluded, taxes and wireless internet connection included), **Click here** to proceed directly to the reservation desk.

Crowne Plaza Brussels City Centre Le Palace
Rue Gineste 3, BE-1210 Brussels, Belgium
☎+32.2.203.62.00 - 🖷 +32.2.203.55.55
E-mail : reservations@cpbxl.be – info@cpbxl.be
Website : http://www.crowneplazabrussels.be

Language

The workshop will be held in English. No translation is foreseen.

Fee

The workshop fee is 363 € (VAT included). This fee includes participation to the workshop, documentation, the walking dinner on Monday evening, the lunch on Tuesday and coffee breaks.

Registration

Participants should enrol by returning the registration form available on the AIVC website and pay the registration fee before June 1st, 2010.

More information

For any information, please contact Stéphane Degauquier at INIVE EEIG (Belgian Building Research Institute - BBRI):
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Sponsoring

In order to allow a large number of interested parties to participate at this workshop and to have an efficient follow-up of this initiative, sponsoring is foreseen:

- There is financial support by Eurima, Lindab, Proclima, Soudal and Tremco Illbruck. REHVA and the Building Performance Institute Europe support the workshop as well.
- The workshop receives support from the Brussels Region ("Technological guidance actions eco-construction"), the Flemish Region (Flemish Energy Agency and the Technological guidance actions Sustainable Building Envelope) and the Walloon Region (Support to the participation in the AIVC).

Programme

Monday June 14 2010

12.30 Opening of registration

13.30 session 1 : Welcome and context for building airtightness

1. General welcome and context of this workshop (including some data on European building market)
   P. Wouters, INIVE, Belgium
2. EU IEE activities on energy efficiency in buildings
   G. Sutherland, EACI project officer
3. Importance of building airtightness in overall energy efficiency strategies
   R. Carrié, CETE de Lyon, France
4. Experiences from practice
   a. Experiences from the USA
      M. Sherman, LBL, USA
   b. Meaning of the envelope airtightness in cold and mild climate regions under wider perspectives for energy conservation in residential buildings
      T. Sawachi, BRI, Japan
   c. The change and course in airtightness levels of Dutch dwellings over the last 60 years – reasons behind and measures taken
      W. de Gids, TNO, Netherlands

15.30 break

16.00 Session 2 : PLANNING of airtight envelopes

1. Intro by the session chairmen
2. Importance of careful airtightness design to avoid improvised solutions on site – the Passive House approach
   M. Bodem, ING + ARCH partnership, Nürnberg, Germany
3. Design, market transformation and cost considerations in Norway
   P.G. Schild (SINTEF), S. Holøs (SINTEF), T. Aurlien (UMB), T-O. Relander (NTNU), Norway
4. Long term performance and durability of seals and bonds
   R. Gross, Center for conservation-conscious building, Kassel, Germany
5. Airtightness prediction
   N. Van den Bossche (UGent) and J. Langmans (KU Leuven), Belgium
6. Importance of a correct overall performance assessment – probability assessment of performance and costs
   C.-E. Hagentoft, operating Agent IEA ECBCS Annex 55, Sweden
7. Cost considerations
   A. Zhivov, USACE, USA

18.00 End

19.30 Walking Buffet with keynote in hotel Crowne Plaza

Tuesday June 15 2010

9.00 Session 3 : EXECUTION of airtight envelopes

1. Intro by the session chairmen
2. Overview of available technologies for building airtightness
   General introduction (W. de Gids, TNO, Netherlands) with specific solutions from industry representatives
3. The need for quality management – overview of possible instruments and practical examples
   P. Wouters

10.30 break

11:00 Session 4 : EVALUATION of the airtightness

1. Intro by the session chairmen
2. The role of the ISO standard - Revision of ISO 9972/EN 13829
   Hiroshi Yoshino, ISO Convenor, Japan
3. Fan pressurisation measurements; what kind of uncertainties?
   Max Sherman, LBL, USA
4. Qualification of airtightness measurers and framework of quality management- the French approach
   R. Carrié, CETE de Lyon, France
5. Practical experience on large buildings
   a. Ian Mawditt, Building Sciences, UK

12:30 Lunch

13.30 Session 5: Challenges and opportunities for the stakeholders

Panel 1 :**<u>Governments and clients</u>**

- W. Roelens, Flemish Energy Agency, Belgium
- F. Rodriguez, Labein Technalia, Spain
- B. Wallyn, CECODHAS (The European liaison committee for social housing)
- A. Zhivov, USACE, USA
- T. Sawachi, Building Research Institute, Japan

Panel 2 : **<u>Suppliers and executers</u>**

The panel will include the following persons:

- Pekka Vuorinen, FIEC (European Federation of Building Contractors)
- Kees Rijk, EFCA (European federation of Engineering Consultancy Associations)
- Francis Allard, REHVA (Federation of European Heating and Air-Conditioning Associations)
- Andrew Eastwell, BSRIA Ltd

The participation of other representatives is expected.

15:00 Break

15:30 Closing session

- Lessons learned & summing up : Martin Liddament, International Journal on Ventilation
- The need for a platform approach - Launch of the European Platform on Building Airtightness
- The new approach for AIVC
- Conclusions and next steps

17:00 End of workshop