

# First announcement and call for abstracts

Deadline for abstracts: 15 March 2014



**Poznań, Poland**  
**24–25 September 2014**

**35<sup>th</sup> AIVC Conference**  
**4<sup>th</sup> TightVent Conference**  
**2<sup>nd</sup> venticool Conference**

**Ventilation and airtightness in transforming the  
building stock to high performance**

In cooperation with



## Conference organizers

The conference is organised by:

- the International Network on Ventilation and Energy Performance (INIVE) on behalf of the **Air Infiltration and Ventilation Centre (AIVC)**, **TightVent Europe** (the Building and Ductwork Airtightness Platform), and **venticool** (the international platform for ventilative cooling); and
- the **Poznań University of Technology**.

Since 1980, the annual AIVC conferences have been the meeting point for presenting and discussing major developments and results regarding infiltration and ventilation in buildings.

AIVC combines forces with the TightVent Europe and venticool platforms aiming at facilitating exchanges and progress on airtightness and ventilative cooling issues, which are major topics of this conference.

## Conference concept

The conference will consist of 2 or 3 parallel tracks:

- One track will to a large extent be devoted to ventilative cooling;
- One track will to a large extent be devoted to airtightness issues.

The conference will consist of a mixture of:

- Well-prepared structured workshops focused on the conference topics;
- Presentations on invitation;
- Presentations from call for papers.

## Scope

Many countries are developing ambitious plans to reduce drastically energy use and greenhouse gas emissions in the building sector. This sector offers great abatement potential especially in existing buildings—as new constructions represent each year typically less than 1-2% of the building stock—as well as in the management of space conditioning, as 30% to 70% of buildings' energy use is dissipated through ventilation and infiltration.

Building renovation entails a number of challenges to meet high energy performance as well as good indoor climate conditions. Provisions must be made to ensure good indoor air quality by limiting indoor contaminant sources and providing fresh air bearing in mind potential issues with the quality of the outdoor air. The need for active cooling should be minimized by addressing the management of solar loads, airflow rates and thermal mass. Another challenge lies in the reduction of infiltration losses through the building envelope, which is often a major barrier to achieve low-energy buildings.

While a number of initiatives have triggered significant progress on these issues for new buildings, the existing stock is lagging behind due to specific technical and policy constraints. Therefore, this conference aims to focus on ventilation and airtightness challenges in transforming the building stock to high performance, with the following major themes:

- Thermal comfort and ventilative cooling—i.e., the application of ventilation airflow rates to reduce the cooling loads in buildings;
- Air infiltration through leaks in the building envelope and ductwork;
- Ventilation in relation to Indoor Air Quality and health.

## Venue and language

The conference will be held in downtown Poznań.

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

## Topics of the conference

Contributions are invited in the areas of research, development, application and market and legislative implementation of ventilation and infiltration. Preference will be given to abstracts focusing on one of the following topics:

For **ventilative cooling** aspects:

- Potential for ventilative cooling strategies
- Ventilative cooling in energy performance regulations
- Design approaches for ventilative cooling and case studies — Integrated design
- Thermal comfort and ventilation
- Active facades

For **airtightness** related aspects:

- Building and ductwork airtightness in existing buildings
- Infiltration measurement techniques and IR thermography

- Quality schemes for airtightness testers
- Durability of building and ductwork airtightness
- Energy and IAQ impact of envelope and ductwork leakage

For **ventilation in relation to IAQ and health** aspects:

- IAQ impacts from outdoor sources
- Demand-controlled ventilation
- Humidity control and moisture damage
- Ventilation in renovated buildings
- Characterization of air cleaning technologies

**Other** aspects relevant to the conference include:

- Multi-family buildings
- Quality of ventilation systems
- Fan energy use
- Innovative ventilation concepts and combined systems
- Controls and user interaction

## About AIVC, TightVent Europe, venticool, PUT

The **AIVC** activities are supported by 17 countries (Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Sweden and USA). See [www.aivc.org](http://www.aivc.org) for more information.

The **TightVent Europe** platform supported by AeroSeal, BlowerDoor, Eurima, Lindab, Retrotec, Soudal, Tremco illbruck , Wienerberger. See [www.tightvent.eu](http://www.tightvent.eu) for more information.

The **venticool platform** is supported by Agoria-NAVENTA, ES-SO, Eurima, VELUX, WindowMaster. See [www.venticool.eu](http://www.venticool.eu) for more information.

**Poznań University of Technology** with over 20 000 students and more than 1 000 academic staff is one of the leading technical universities in Poland. See [www.put.edu.pl](http://www.put.edu.pl) for more information.

## Sponsoring

There are various possibilities for sponsoring:

- Global conference sponsors (Diamond, Platinum, Gold)
- Sponsoring of activities (Breaks, welcome reception, Gala dinner)
- Student sponsor

In case of interest in sponsorship, please contact Stéphane Degauquier ([stephane.degauquier@bbri.be](mailto:stephane.degauquier@bbri.be) )

This conference is at present supported by the following organizations:



## **More about AIVC, TightVent, venticool, PUT**

### **About AIVC**

The AIVC ([www.aivc.org](http://www.aivc.org)) activities are supported by the following countries: Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Sweden and USA.

Created in 1979, the Air Infiltration and Ventilation Centre ([www.aivc.org](http://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 17 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](http://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: Aero seal, Buildings Performance Institute Europe, BlowerDoor GmbH, European Climate Foundation, Eurima, Lindab, Retrotec, Soudal, Tremco illbruck, and Wienerberger.

### **About venticool**

Venticool ([venticool.eu](http://venticool.eu)) is the international ventilative cooling platform launched in October 2012 to accelerate the uptake of ventilative cooling by raising awareness, sharing experience and steering research and development efforts in the field of ventilative cooling. The platform supports better guidance for the appropriate implementation of ventilative cooling strategies as well as adequate credit for such strategies in building regulations. The platform philosophy is pull resources together and to avoid duplicating efforts to maximize the impact of existing and new initiatives. venticool will join forces with organizations with significant experience and/or well identified in the field of ventilation and thermal comfort like AIVC ([www.aivc.org](http://www.aivc.org)) and REHVA ([www.rehva.eu](http://www.rehva.eu)).

Venticool has been initiated by INIVE EEIG (International Network for Information on Ventilation and Energy Performance) with the financial and/or technical support of the following partners: Agoria-NAVENTA, ES-SO, Eurima, Velux and Window Master.

### **About Poznań University of Technology**

Poznań University of Technology (PUT, [www.put.edu.pl](http://www.put.edu.pl)) was established in 1919 and currently, with over 20 thousand students and more than 1 000 academic staff, is one of the leading technical universities in Poland.

10 Faculties cover wide range of technical knowledge: Architecture, Chemical Technology, Civil and Environmental Engineering, Computing, Engineering Management, Electrical Engineering, Electronics and Telecommunications, Mechanical Engineering and Management, Technical Physics, Machines and Transportation. PUT offers Bachelor, Master and Doctorate courses in Polish and English. European Credit Transfer System (ECTS) is implemented, many foreign students study in the Erasmus program. PUT participates in Polish and international scientific projects and is involved in cooperation with industry.