



Foreword

The venticool platform was inaugurated in September 2012 in response to the needs felt to increase awareness regarding ventilative cooling and to foster exchanges on this topic both for practitioners and researchers. 15 months later, its relevance is clearly confirmed:

- The IEA EBC Annex 62 project on “Ventilative cooling” has been approved for a 4-year working phase and will use venticool as key communication partner;
- The 2012 and 2013 AIVC conferences, together with the March 2013 workshop have been major discussion places on this topic and key elements to develop the annex work plan;
- The Intelligent Energy Europe project “QualiChEck” recently approved will address ventilative cooling issues related to compliance and quality of the works in collaboration with venticool.

This opens a period of 4 to 5 years at least with great developments expected on ventilative cooling. We hope you will have a good taste of it with this newsletter.

Peter Wouters, Manager of INIVE EEIG

2013 conference

Summary of the ventilative cooling track

By Maria Kapsalaki, INIVE and Per Heiselberg, University of Aalborg, Denmark.

Over 160 persons attended the joint 34th AIVC, 3rd TightVent, 1st venticool and 2nd Cool Roofs' Conference held in Athens, Greece on 25-26 September, 2013. The conference focused on research, technologies, policies and market transformation to employ in an optimal way proper mitigation and adaptation techniques with the aim to reduce the energy consumption of buildings and improve the urban microclimate. Furthermore, focus was set on the energy impact of ventilation and air infiltration while ensuring good indoor air quality and thermal comfort, as well as converging work on smart materials to reduce the carbon footprint of the building sector.

Ventilative cooling was one of the major themes since the potential of this technique is more and more considered to reduce the cooling

energy demand in summer or mid-season conditions, depending on outdoor climate, building design and internal loads. The ventilative cooling track of the conference consisted of 4 sessions with 27 presentations covering the following topics:

- Ventilation for summer comfort – energy impacts
- Experience with ventilative and passive cooling
- Ventilation and cooling strategies
- Ventilative cooling in standards and regulations – Challenges for Annex 62

The paper available at venticool.eu/wp-content/uploads/2013/12/VC-summary_VF-2.pdf gives a bird's eye view of trends and conclusions that appeared in the presentations and discussions in the ventilative cooling track of the conference.

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IEA EBC Annex 62 Working phase approved!

By Per Heiselberg, University of Aalborg, Denmark.

The IEA EBC Annex 62 successfully completed its one year preparation phase and the EBC ExCo approved at their latest meeting in November 2013 in Dublin the proposed work plan and Annex Text. The four year working phase will run from 2014-2017 and representatives from about 20 research institutes and private industries from 15 different countries will join the research team.

Please consult the website for further information (venticool.eu/annex-62-home/).

The research in Annex 62 will focus on development of design methods and compliance tools related to predicting, evaluating and eliminating the cooling need and the risk of overheating in buildings and on development of new attractive energy efficient ventilative cooling solutions. Research achievements will be summarized in a number of publications addressing the need of different target groups (Table 1). All publications will be published on the [venticool/annex-62](http://venticool.eu/annex-62) website.

It is expected that the first publication, giving an overview of the actual status of the ventilative cooling technology, will be published by the end of 2014.

At the 2nd Annex 62 preparation meeting 20 delegates from 13 countries completed the work plan and started work on the first Annex 62 publication. The meeting was held in Athens, Greece, September 23-24, 2013 and hosted by professor Mattheos Santamouris, NKUA.

ID	Official Deliverable	Target Group
D1	Overview and state-of- the art of Ventilative Cooling	Research community and associates. Policy makers
D2	Ventilative Cooling Source Book	Building component and ventilation system developers and manufacturers. Architects and design companies, engineering offices and consultants
D3	Ventilative cooling case studies	Architects, consulting engineers
D4	Guidelines for Ventilative Cooling Design and Operation	Architects and design companies, engineering offices and consultants
D5	Recommendations for legislation and standards	Policy makers and experts involved in building energy performance standards and regulation

Table 1: Annex 62 Deliverables & target groups



Figure 1: 2nd Annex 62 preparation meeting, Athens, Greece, September 23-24, 2013.

BUILD UP overview article

venticool prepared an overview article on ventilative cooling entitled as 'Ventilative Cooling Lowers Energy Consumption' which has been distributed in September through the BUILD UP News Alert channel. Articles going through this channel are distributed to more than 25.000 e-mail addresses in Europe. The article is now published and available at www.buildup.eu/news/35658

Figure 2: BUILD UP overview article on ventilative cooling

New venticool website – venticool and Annex 62 join forces

As the venticool platform will act as a key partner for dissemination of IEA EBC Annex 62 and in order to optimize the communication, it was decided to have one single website for both actions. Please visit the new and combined website of the venticool platform and of IEA EBC annex 62 ‘ventilative cooling’ for more regular updates on the progress of the annex, events, publications, etc.

QualiChEck proposal accepted!

INIVE is pleased to announce that its ‘QualiChEck’ proposal submitted in the framework of the Intelligent Energy Europe Programme has been accepted and should start during the first semester of 2014. The project aims to develop a series of actions to increase attention and foster real actions:

- To improve the confidence in compliance of new and renovated buildings (with specific focus for residential buildings) to the claimed energy performance i.e. “Boundary conditions which force people to do what they declare”;
- To achieve better quality of the works, i.e. “Boundary conditions which stimulate and allow the building sector to deliver good quality of the works”.

The project in general is expected to raise awareness among stakeholders in several technology areas including ventilative cooling.

The QualiChEck consortium consists of a broad range of organisations in 10 countries spread over Europe. Its partners and otherwise related members cover a wide range of expertise and competences and have several strong links to many European initiatives.



Figure 3: The QualiChEck consortium organisations

The work programme consists of 3 types of activities:

- > **Status on the ground:** what is the situation in practice? Critical situations? Interesting approaches? This is covered in work package (WP) 2.
- > **Providing solutions:** a key activity of the project is to collect, document and structure possible solutions for achieving substantial improvements regarding on the one hand the reliability of data used in EPC calculations and on the other hand improved quality of the works. This is targeted in the following 3 WPs:
 - **“Towards reliable and easily accessible EPC input data”** (WP3). The focus here is on the identification of interesting boundary conditions and, if needed, on the identification of relevant developments required to come to correct and transparent performance declarations in certificates. An important parameter is to guarantee a low level of effort required for the various actors involved in the EPC declarations.
 - **“Towards improved quality of the works”** (WP4). Here the focus is on the identification of interesting

technical & organisational frameworks for achieving better quality of the works

- **“Towards better compliance and effective penalties”** (WP5).

Assuming that the procedures for collecting/declaring EPC data are clear (WP3) and/or that the frameworks for ensuring good quality of the works are available (WP4), this WP is focusing on effective procedures for achieving better compliance and/or effective sanctioning.

- > **Outreach and engagement:** It is important that the outcomes of the project reach the market AND contribute to action. A series of activities are foreseen to achieve an effective outreach. More crucial addition is a series of activities foreseen with as aim to stimulate and accelerate engagement by various market players.

It is important to mention that QualiChEck is NOT focusing on the real measured energy consumption of buildings.

More information will be available on the venticool website.

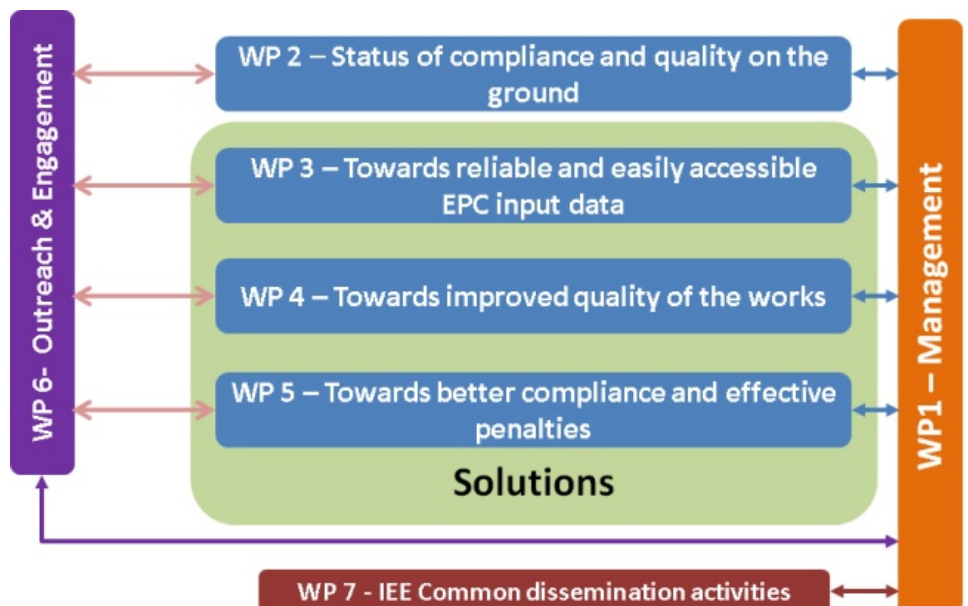


Figure 4: The QualiChEck work programme

Workshop on 'Quality of Methods for Measuring Ventilation and Air Infiltration in Buildings' – 18-19 March 2014

The workshop will address primarily field measurement of airflow rates, air exchange rates, air velocities, and pressures. Several sessions will be particularly relevant to ventilative cooling which typically implies high air flow rates very difficult to measure.

For more information, visit:

www.aivc.org/event/march-18-19-2014-aivc-workshop-quality-methods-measuring-ventilation-and-air-infiltration.

2014 AIVC conference – September 2014 in Poznań, Poland

The 35th AIVC conference will be held in Poznań, Poland in conjunction with the 2nd venticool conference and the 4th TightVent conference. It will be a major international event in 2014 with one track dedicated to ventilative cooling, focusing on the following topics: 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 and active facades including topical sessions on building and ductwork airtightness.

Visit the conference website

www.aivc2014conference.org for further information.

- **AGORIA-Naventa** is the Belgian association of manufacturers of natural ventilation in residential and non-residential buildings. This group was founded within Agoria, the federation of the Belgian technological industry. As Naventa, we give special consideration to health-related issues when developing new natural ventilation, solar shading and night cooling systems. By supporting the venticool platform, Naventa wants to increase her knowhow and raise awareness that there is a huge need for CEN standards to calculate the influence of ventilative cooling on the energy performance of buildings.



- **ES-SO**, the European Solar-Shading Organisation, is the umbrella body representing the European solar shading and roller shutter industry. Its objectives are to provide a permanent point of contact between its members (mainly the national professional trade associations) and the European authorities, and to demonstrate that solar shading can make a substantial contribution to energy savings and indoor comfort. By joining the ventilative cooling platform ES-SO underlines the importance of different technologies and strategies to be used in a multidisciplinary and integrated conceptual way to reach the target of low energy buildings' thermal comfort criteria as well as maintaining a good indoor climate and visual comfort.



- **Eurima** is the European Insulation Manufacturers Association, representing the interest of the mineral wool insulation industry. Eurima actively support venticool to develop knowledge and application of ventilative cooling solutions for a successful implementation of the EPBD recast bearing in mind comfort issues. This requires appropriate levels of insulation and well-functioning ventilation making best use of building materials in order to guarantee energy efficiency, comfort and good indoor air quality.



- The **VELUX** Group offers a wide range of solutions for daylight and fresh air through the roof – regardless of roof pitch, size and purpose of the building. The VELUX Group considers ventilative cooling to be a sustainable technology. A technology which today is not at all used to its full potential. The mission of venticool is therefore crucial. It supports the effective and knowledge-based promotion of the use of ventilative cooling, it fills in the gaps in the value chain of ventilative cooling that exist in calculation methods, standards and regulations, and it promotes the communication and awareness of ventilative cooling that could act as a catalyst in the development of the right solutions for the market when they are most needed.



- **WindowMaster A/S** is founded on a vision to create better buildings that have plenty of fresh air and excellent and safe indoor climates. We supply sustainable indoor climate solutions for all types of buildings and our solutions are based on natural and hybrid ventilation. Also natural smoke ventilation is a part of our offerings. Our expertise is built on our knowledge of regulatory standards and project development, and our experience from thousands of completed projects across Europe.



PLATFORM FACILITATOR

- **INIVE** is a registered European Economic Interest Grouping (EEIG) that brings together the best available knowledge from its member organisations in the area of energy efficiency, indoor climate and ventilation.



venticool
the international platform for ventilative cooling

