TightVent Belgium
A new local network of airtightness is starting up...

**First step:** Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

**Second step:** Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...
**First step**: Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

**Second step**: Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...

**Build Up Skills**

- An European project declined at the national level

- Partners:

- **Objective**: improve skills of builders

- 9 topics
  - Airtightness
  - Replacement of exterior windows and doors
  - Ventilation
  - Coordination between workers
  - Heat pumps
  - PV and thermal solar collectors
  - Post-isolation of cavity wall
  - Isolation of roof
  - Sunscreen curtains
Build Up Skills: Conclusions

• **Required pressurization test:**
  – With or without leakages detection
  – Advisable: Architect and building contractor would be present during the test in order to make improvements on the envelope but also for training aspect and quality improvement
  – All building could be tested
  – The test could be required, but there could be no minimal performance required

Build Up Skills: Conclusions

• **Quality framework for the pressurization test:**
  – If the test is required, it must be reliable
  – Good basic training for the testers
    • with exam
  – Good quality framework
    • Reliable measurements (method, equipment, operator, reporting)
    • Inventory of leakages by category
    • Control on site
Build Up Skills: Conclusions

• Realization of an airtight building:
  – Technical details available voor architects and building contractors (via on-line database)
  – Integration of airtightness issue in the cursus of architects and building contractors (also craftsmen)

• Manufacturers involvement
  – Performance of their products available
  – Reliable solutions
  – Durability of the performance: Ageing effect on their products

First step: Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

Second step: Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...
Uncertainties on the measurement

- *Interlaboratory Tests for the Determination of Repeatability and Reproducibility of Buildings Airtightness Measurements*
  
  C. Delmotte

- Let’s imagine
  - the same technician with the same blower door in the same building
  - How different can be 2 measurements of the airtightness?

  - ...two technicians with their own blower door in the same building
  - How different can be 2 measurements of the airtightness?
Uncertainties on the measurement

- *Variability of the average value*

![Graph showing variability of average value](image)

**First step**: Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

**Second step**: Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...
First step: Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

Second step: Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...
A new local network of airtightness testers

• BBRI and TightVent Europe have organized an information day on airtightness issues in the Belgium context.
• 52 persons exchanged points of views

→ Given the positive feedback of the participants on the relevance of such meetings, it is likely to lead to the inauguration of a Belgian network named “TightVent Belgium”
→ There is a wide support for a quality framework for airtightness testing

First step: Platform of airtightness testers to achieve a relevant quality framework and to follow up it day-to-day.

Second step: Wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...
Etanch’air

• Research project subsidized by Wallonia
• Collaboration with 3 building contractors

• Objectives:
  – Measure the leakages in-situ
  – Develop the airtightness measurement for large buildings
  – Elaborate a guide with technical solutions
  – ...

Luchtdicht bouwen van A tot Z

• Research project subsidized by Flanders
• Collaboration between:

• Objectives: a close follow up of twenty companies
  – Technical advises on site
  – Trainings
  – Several measurement to check the efficiency of different solutions
  – ...

Technical guide

• Publication foreseen in 2014
• On-line details
Conclusions

• There is a wide range of activities related to building airtightness, ranging from good specifications, design issues, construction details and testing aspects, ...

• Awareness raising and stakeholders concertation is crucial

• From the various activities, it is clear that there is a wide support for a quality framework for airtightness testing

• It is within this context that TightVent Belgium is conceived
Thank you for your attention