Quality of ventilation systems in residential buildings

Status and perspectives in the Netherlands
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Sometimes things go wrong…….
And that’s not different for residential ventilation!

The Market

- +/- 15 manufacturers
- +/- 200 million € turnover in NL
- Increasing export
- 30% of the homes mechanical ventilation
- 2 % balanced ventilation
- Decentralised systems coming up
- Innovations applied on a large scale

- 35000 new homes in 2013?
- Renovation/replacement market?
Everything is there

• Clear performance requirements
  ➢ Capacity
  ➢ Comfort
  ➢ Controllability
  ➢ Noise levels
• Clear standards how to comply
• Additional sector-specific guidelines
• Educational programmes
• Certification programmes for installers

In practice

• Quality issues in all phases of construction
• Poor cooperation between parties
• Strong focus on energy performance
• Lack of commissioning
• Lack of knowledge installers
• Limited enforcement of legislation
• Negative media coverage
In practice

Main problems:
• Insufficient capacity
• Air distribution incorrect/not set
• Thermal discomfort
• Noise levels too high
• Contamination in system
• Illogical location of supply vents
• Incorrect use
• Inadequate information to residents
• Poor maintenance

Resulting in..
Enforcing quality

Key factors

- Limited role for government
- Sense of urgency all parties concerned
- Quality demands by consumer organizations
Action plan

1. Use a clear programme of requirements
2. Supervise execution using a protocol
3. Establish quality at delivery using a VPK (Ventilation Performance Assessment)
4. Inform residents
5. Organize training for architects, builders, installers
6. Increase resident awareness
7. Active monitoring