Structured discussion
Sources of problems regarding input data, quality of the works, and innovation

Structure for the discussion

What is the context? → 2 QUALICheck source books

Is training sufficient or do we need strict compliance frameworks?

3 steps in effective compliance frameworks?

What about innovation? Societal support?
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2 source books in preparation…

**DRAFT SOURCE BOOK**
Analysis of the reasons for good / poor EPC compliance AND of the reasons for success/problems

Documented set of ‘best practices’ for easy access to compliant EPC input data AND for better compliance and effective penalties

**FINAL SOURCE BOOK**
Analysis of the reasons for good / poor EPC compliance AND of the reasons for success/problems

Documented set of ‘best practices’ for easy access to compliant EPC input data AND for better compliance and effective penalties
QUALICHeCK source book on “Guidelines for better enforcement of EPC compliance”

1. Introduction
2. Overall context
3. Analysis of reasons for good/poor EPC related compliance
4. Documented set of best practices
   1. PART 1 – Procedures to obtain and prove compliant data
   2. PART 2 – Legal framework for better enforcement and effective penalties
   3. PART 3 - Practical implementation of an effective framework for better enforcement and effective penalties
5. About Innovation
6. Society and EPC compliance
7. Economics of compliance
8. Conclusions
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How many member states has the EU?

1. 24 7% (2)
2. 26 10% (3)
3. 28 70% (21)
4. 30 13% (4)
What is the distance from Lund to Copenhagen airport?

1. 30 km - 12.9%
2. 40 km - 12.9%
3. 50 km - 38.7%
4. 60 km - 22.6%
5. 70 km - 12.9%

From which country are you?

1. Sweden - 27.3%
2. France - 24.2%
3. Belgium - 21.2%
4. Other country - 27.3%
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What are the boundary conditions for good ventilation and airtightness performances?

Ambitious

Enforcement?

Pragmatic!
Combining capacity building with enforcement schemes? Governmental – voluntary?

e.g. BUILD UP Skills

TRAINING: Need for more and/or improved training?
TRAINING:
Need for more and/or improved training?

Yes

TRAINING:
New offers of training
Upgrading existing training...

COMPETENCE:
Need for checking competence of workers?

No

TRAINING:
Upgrading existing training...
Traineeship:
Need for more and/or improved training?

Competence:
Need for checking competence of workers?

If no strong arguments to formally check for competence, probably no examination system to be imposed.

Training:
New offers of training
Upgrading existing training

Examinations
Certified Workers

Governmental/Voluntary initiatives

EPBD
IAQ concerns

Yes

No

Yes

No

Governmental/Voluntary initiatives

ATINMA Certified
Air-Tightness Tester
Should one oblige that residential ventilation systems have to be installed by certified installers, e.g. imposed by insurance companies, government, …?

1. This is surely the way to go: 24%
2. This would be a very good development: 55%
3. No strong opinion: 9%
4. I am not so in favour: 12%
5. I am against: 0%

(intense) discussions in Belgian context…

- There is no discussion that it is has major advantages if work is done by competent installers
- But should certification be a requirement?
  - The required competence for a small extraction system requires different competences than for a big central system in an apartment building → one type of certification?
  - What about contractors who not often do the job?
  - No longer possible to have works by do-it-yourself?
  - …

- Is it better to focus on the delivered performances?

QUALICHeCK wants to collect PROS and CONS. Each country has to make its own judgment.
Belgium: Everyone can take care of maintenance but control by third party

TRAINING:
Need for more and/or improved training?

COMPETENCE:
Need for checking competence of workers?

BUILDINGS:
Need for checking quality of the works?

High probability of good workmanship

Yes

No

TRAINING:
Upgrading existing training

EXAMINATIONS:
Certified Workers

No

No

Governmental / Voluntary initiatives

EPBD IAQ concerns ...
1. Awareness

2. Training

3. Good design

4. Purchase & installation

5. Testing

Effective implementation?

- **TRAINING:** Need for more and/or improved training?
- **COMPETENCE:** Need for checking competence of workers?
- **BUILDINGS:** Need for checking quality of the works?

- **EPBD IAQ concerns**
- **Examinations Certified Workers**
- **Reports for each building**
- **High probability of good workmanship**

- Yes
- No

- **TRAINING:** New offers of training
  Upgrading existing training

Governmental / Voluntary initiatives
French approach in framework of RT2012

**OPTION 1: Certified tester**

Control of the end result!

**OPTION 2: Building firm with integral quality approach**

Control of competence/organisation AND end result!

Belgium: all cars older than 4 years must go to a neutral control organism

Netherlands: mandatory control can be done by garages but within context of certification (3% control)
In case there is a need and support for enforcement...

How to create the appropriate boundary conditions?

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Efficiency of a heat exchanger
Airtightness of a building
Possibility to have efficient maintenance

There are clear procedures what must be done

Formal procedures if non-compliance
There are clear procedures how to decide on non-compliance and related actions

Handling of non-compliance in practice
There is an effective control and sanctions if non-compliance
What do you think of this approach?

1. It clearly identifies the different key steps in the process
   59%

2. It is not so clear
   25%

3. I would prefer another approach
   13%

4. I have not yet a clear idea
   3%
Splitting up effective compliance frameworks in 3 steps?

STEP 1: Procedures to obtain & prove compliant data

- **Building airtightness**
  - Clear rules how to prepare the building?

- **Ventilation**
  - What are the type and level of performances to be achieved?
  - Are there clear procedures to come to product and system data?
- ...
STEP 1:
Procedures to obtain & prove compliant data

• Potential important actions at European level (databases)
• Pragmatic approach is crucial!
  • Swedish approach for ductwork testing is very interesting:
    • Assessment can be done by installers
    • Initial test: only 10% or 20% of total ductwork to be checked
• Pragmatic approach is closely linked to cost aspects and, indirectly, societal support!

Are there clear procedures what must be done?

STEP 2:
Formal procedures if non-compliance

• Are there clearly written procedures?
  • What kind of control is possible?
  • What kind of sanctions?
  • Who can be held liable?
  • …

Are there clear procedures how to decide on non-compliance and related actions?
STEP 3:
Handling of non-compliance in practice

- Rules and procedures are crucial, but little will happen if no action on the terrain.
- Various issues, e.g.:
  - Need to have staff for carrying out control (desk control, on site)
  - Political will to act in case of non-compliance
  - Robust legal system crucial
  - Almost impossible if no (strong) support from major stakeholders
  - …

Handling of non-compliance in practice

Is there an effective control and sanctions if non-compliance?

Residential ventilation performances:
What is the situation in your country?

1. No attention in governmental frameworks (EPBD, legislation,…)
   9.7%
2. Included in procedures, no framework allowing control
   6.5%
3. Included in procedures, framework allowing control but almost not done
   45.2%
4. Included in procedures, effective control framework
   32.3%
5. No clear idea
   6.5%
Residential ventilation performances: What is the situation in your country?

1. No attention in governmental frameworks (EPBD, legislation,...)
   - Sweden: 0.0%
   - France: 12.5%
   - Belgium: 0.0%
   - Other country: 22.2%

2. Included in procedures, no framework allowing control
   - Sweden: 0.0%
   - France: 12.5%
   - Belgium: 0.0%
   - Other country: 11.1%

3. Included in procedures, framework allowing control but almost not done
   - Sweden: 0.0%
   - France: 11.1%
   - Belgium: 42.9%
   - Other country: 44.4%

4. Included in procedures, effective control framework
   - Sweden: 0.0%
   - France: 0.0%
   - Belgium: 42.9%
   - Other country: 77.8%

5. No clear idea
   - Sweden: 0.0%
   - France: 11.1%
   - Belgium: 0.0%
   - Other country: 14.3%

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Building airtightness: What is the situation in your country?

1. No attention in governmental frameworks (EPBD, legislation,...)
   - 20%

2. Included in procedures, no framework allowing control
   - 7%

3. Included in procedures, framework allowing control but almost not done
   - 27%

4. Included in procedures, effective control framework
   - 43%

5. No clear idea
   - 3%
### Ventilative cooling:
**What is the situation in your country?**

1. No attention in governmental frameworks (EPBD, legislation,...)  
   ![Bar Chart](image1.png)
   - 41.9%

2. Included in procedures, no framework allowing control  
   ![Bar Chart](image2.png)
   - 35.5%

3. Included in procedures, framework allowing control but almost not done  
   ![Bar Chart](image3.png)
   - 3.2%

4. Included in procedures, effective control framework  
   ![Bar Chart](image4.png)
   - 3.2%

5. No clear idea  
   ![Bar Chart](image5.png)
   - 16.1%

### Ductwork performances:
**What is the situation in your country?**

1. No attention in governmental frameworks (EPBD, legislation,...)  
   ![Bar Chart](image6.png)
   - 26%

2. Included in procedures, no framework allowing control  
   ![Bar Chart](image7.png)
   - 26%

3. Included in procedures, framework allowing control but almost not done  
   ![Bar Chart](image8.png)
   - 19%

4. Included in procedures, effective control framework  
   ![Bar Chart](image9.png)
   - 26%

5. No clear idea  
   ![Bar Chart](image10.png)
   - 3%
Ductwork performances:
What is the situation in your country?

1. No attention in governmental frameworks (EPBD, legislation,...)
   - 0.0%
   - 28.6%
   - 37.5%
   - 33.3%
   - Sweden 0.0%
   - France 0.0%
   - Belgium 0.0%
   - Other country 0.0%

2. Included in procedures, no framework allowing control
   - 12.5%
   - 33.3%
   - 57.1%
   - Sweden 0.0%
   - France 11.1%
   - Belgium 11.1%
   - Other country 0.0%

3. Included in procedures, framework allowing control but almost not done
   - 11.1%
   - 50.0%
   - 0.0%
   - Sweden 0.0%
   - France 11.1%
   - Belgium 11.1%
   - Other country 0.0%

4. Included in procedures, effective control framework
   - 88.9%
   - Sweden 88.9%
   - France 0.0%
   - Belgium 0.0%
   - Other country 0.0%

5. No clear idea
   - 0.0%
   - 14.3%
   - 0.0%
   - Sweden 0.0%
   - France 0.0%
   - Belgium 0.0%
   - Other country 0.0%

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**Strict compliance frameworks and innovation?**

- **POSITIVE**: Strict compliance frameworks can be a major driver for innovation…
  - See example in Sweden regarding ductwork airtightness
  - Compliance framework can be a very cost-effective governmental measure to stimulate innovation

- **CONCERN**: If no appropriate procedures for assessing innovative concepts (= not covered by standard procedures), these concepts will have big difficulties to enter into the market

*The overall support for a strict compliance framework may strongly reduce if there is no appropriate framework for integrating innovative concepts*
Society and compliance

- Overall impression:
  - Effective compliance framework in most countries not evident at all if no strong societal support
  - Boundary conditions: In most countries, contractors don’t like control and surely not fines
Is there in your country...

1. A need for more effective control BUT probably no societal support 32%
2. A need for more effective control and probably a possibility for societal support 52%
3. No need for a more strict compliance framework 16%
4. No opinion 0%

Societal support: discussion...