EPC and compliant input data

Which role for the databases?

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3rd QUALICHeCK conference | Better compliance and quality of the works, in practice

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EPC is the most visible part of the EPBD
Ce certificat est un document officiel qui vise à vérifier le bien-fondé de la déclaration faite par le titulaire d'un contrat relatif à la certification des bâtiments existants. Il contient les informations nécessaires pour valider la conformité du bâtiment. Il est à noter que les déclarations faites doivent être vérifiées par un professionnel de la certification des bâtiments existants.

La consommation énergétique calculée du bâtiment est présentée ci-dessous. Elle est basée sur des données spécifiques à l'énergie primaire et initiales de l'enveloppe du bâtiment. Les indicateurs spécifiques sont également mentionnés pour chaque catégorie.

Le certificat est signé par le titulaire de l'entreprise de certification, qui déclare que toutes les données fournies sont conformes à la réalité.
1. Development of the legal framework / Integration in the overall energy policy / Necessary resources / Cost of the system

2. Development of the Methodology / Software / Central EPC database / EPC as a document

3. Independent experts: Training / Accreditation

4. Expert work: Collect **input data** / Site visit / Software use / Recommendations / EPC delivery

5. EPC in advertisements / Display / Cost of the certificate

6. Market response

Independent Control System / enforcement / Impact: Quality control, Compliance check, Compliance rate, sanctions…

Communication strategy
See full presentation on the Qualicheck Website
http://qualicheck-platform.eu/
LUND workshop
INPUT DATA

Building characteristics

Building related performance
Free movement of goods in the internal market

Construction Product Regulation

*Regulation (EU) N° 305/2011*

Obligation for manufacturers to declare performance for essential requirements through this mechanism

Relevant for construction products covered by a.o. harmonised *standards*

European committee for standardization

develop European standards including harmonised *standards*
Some interesting approaches

Product characteristics databases per technology

- Solar protection devices ES-SO
- Ventilation products: Eurovent
- Cool Roofs
- …

The users have to check if these data are well complying with the EPB national rules

Probably not relevant / possible for all products
National input data / requirements can be different

Example of Ventilation

- Many European standards / technical reports available
- Some dominant systems in a country can have very limited market shares in other countries
- For natural ventilation openings
  
  Different design rules (flowrates)

  → Different EP requirements and methods

  → Different input data

In France: @ 10 Pa
In Belgium: @ 2 Pa
In The Netherlands: @ 1 Pa
Some interesting approaches
Product characteristics databases per country

- Per country
  - UK
    - www.ncm-pcdb.org.uk/sap/
      - Ventilation, heating, waste water heat recovery
      - Managed by BRE
  - France
    - www.rt2012-chauffage.com
      - Heating
      - Managed by ATITA/UNICLIMA
  - Belgium
    - www.epbd.be
      - Ventilation, thermal insulation, sunscreens
      - Managed by BBRI
The rules for accepting data in the national databases have to comply with the European legislation.
How to find compliant input data?

Belgian example: www.epbd.be

- Voluntary database supported by the 3 energy agencies
- No discussion on these data by the 3 energy agencies
- Each producer may decide to declare the performance of his products
- Specific procedures for the different type of products including a third party check
Insulation material

Construction products

Solar protection devices

Which Products?

Fans and Ventilation groups

Trickle ventilators
The upcoming European EP calculation standards

New opportunities?

- EU Mandate (M480) for CEN to develop the second generation CEN-EPBD standards
- 52 EPB standards almost ready and will go out for the final Formal Vote by October 2016
- Each EPB standard contains:
  - Annex A (normative): template for choices and input data needed for using the standard
  - Annex B (informative): informative default choices and input data
INPUT DATA

Building characteristics

Building related performance

Data with an important impact on the Energy Performance

INPUT DATA

EPC and reliable input data - which role for the databases?
## Building airtightness

### Very different starting points

<table>
<thead>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>Yes[Residential buildings]</td>
<td>Yes[Non systematic test possible in case of quality management system]</td>
<td>Yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>Yes[All buildings]</td>
<td>(No)</td>
<td>-</td>
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</tbody>
</table>
Quality framework for reliable building airtightness measurements

Reliable Airtightness Tests

Competent testers

Reliable test results

EPC and reliable input data - which role for the databases?
Competent tester schemes in Europe

- Voluntary or mandatory competent tester schemes exist in several European countries
  - Belgium (2015)
  - Czech Republic
  - Denmark
  - France
  - Germany
  - Ireland
  - Sweden (2014)
  - UK
Reliable airtightness test results

Example of Belgium

- Mandatory quality framework for airtightness test in the Flemish Region introduced in 2015 (STS-P 71-3)
- About 10% of the tests are controlled - desk as well as in situ control
Reliable airtightness test results

Example of Belgium

- All test results are centralised in a database
- Possibility to check online the conformity of a test

= input data for the EP calculation
Conclusions

- Compliant EPC input data are crucial for effective EP regulations
- Database are offering great opportunities
- The rules regarding input data remain country specific
- Examples are existing as well for the product data as for the building related performances
- European databases are probably not relevant / possible for all technologies
- A greater use of the European standards will contribute to improve the coherence between these data
- Manufacturers and the industry have an important role to play to provide coherent and compliant input data for their products
Thank you

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