

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement number 839937. The European Union is not liable for any use that may be made of the information contained in this document, which is merely representing the author's view.

Convergent evolution of assess.

presented by Jaap Hogeling, EPB Expert and Initiator,

EPB Center, jaap.hogeling@epb.center

methods - CEN/ISO EPB standards



U-CERT

User-Centred Energy Performance Assessment and Certification



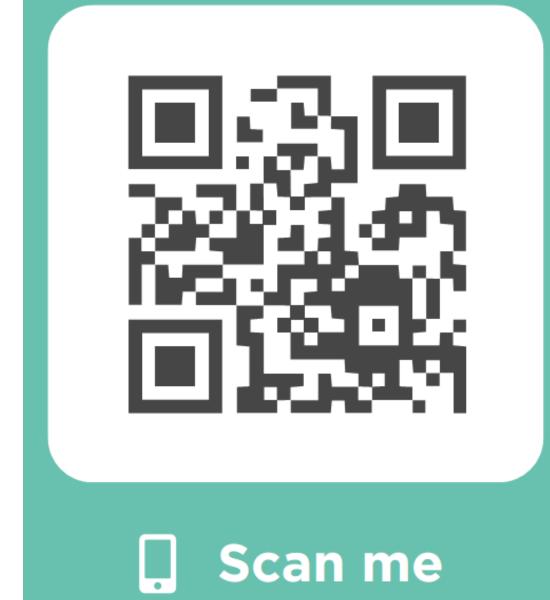
www.u-certproject.eu

@cert_u











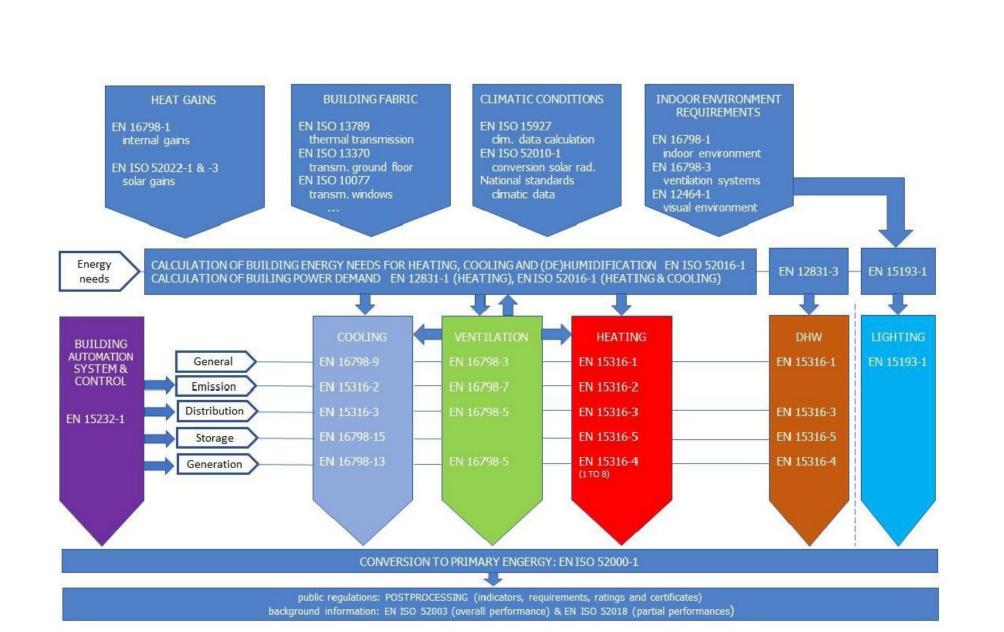


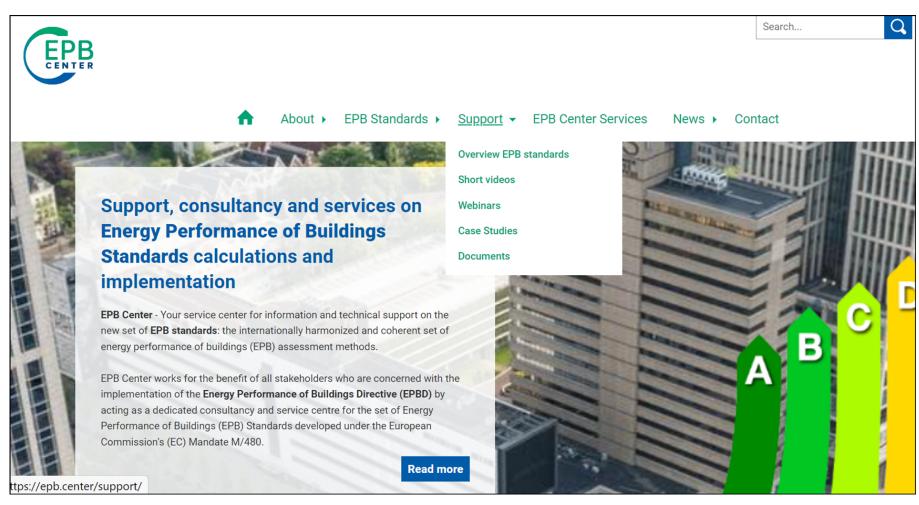
Regulations (Codes) vs Standards: the set of Energy Performance of Buildings (EPB) standards describe in a normative way the EP assessment procedures. It is up to the regulating authorities to lay down in "codes" how they refer to these standards and provide the (national) policy choices connected to the use of the CEN/ISO EPB

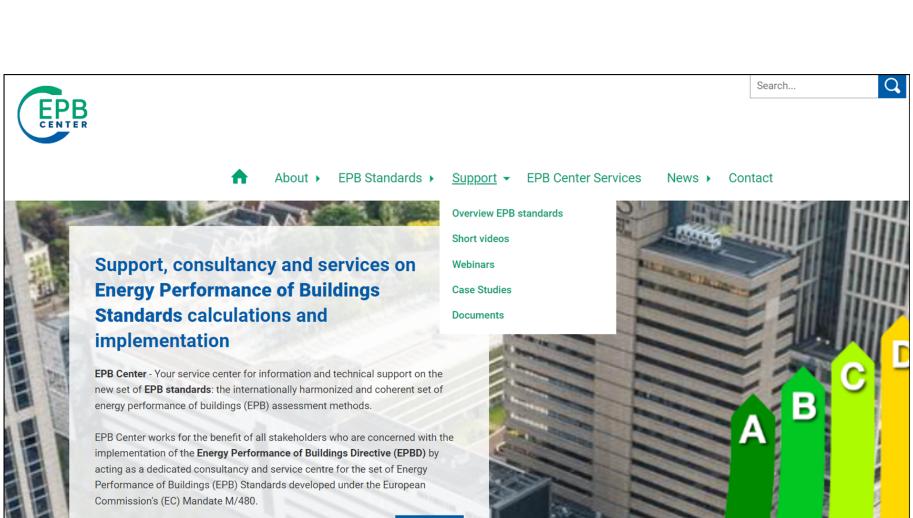


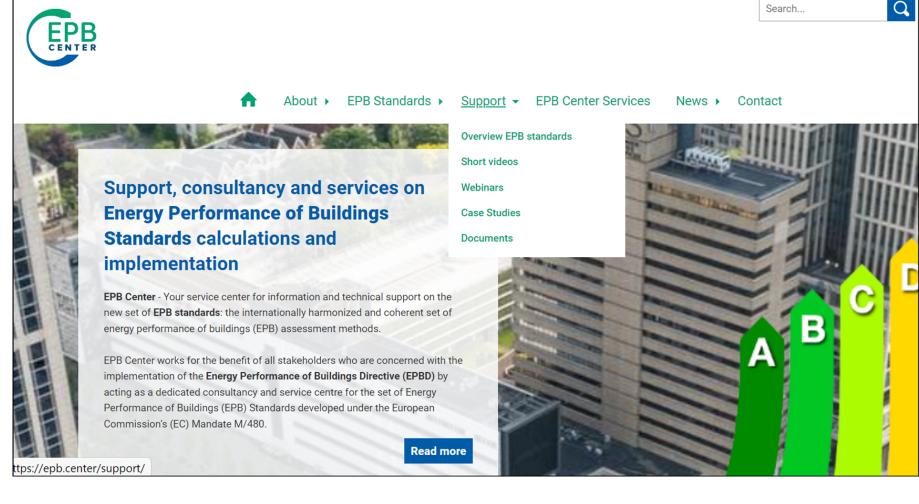


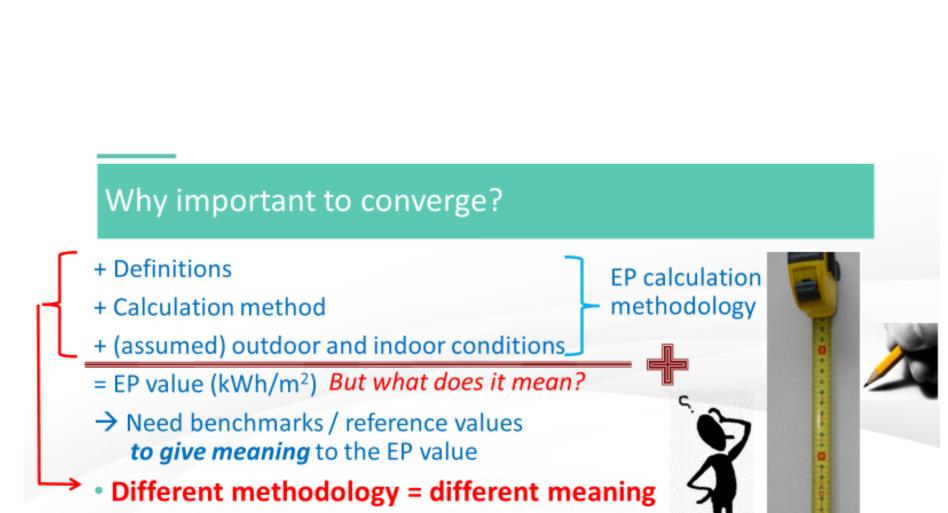
standards.





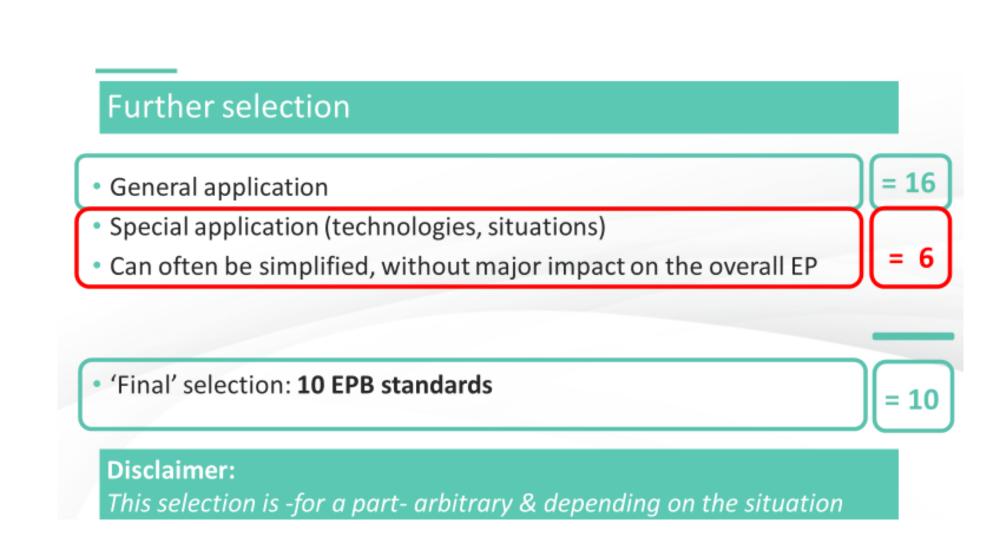






• Differences are o.k., if conversion possible

e.g. climatic data, prim.energy weighting factors



The set of CEN/ISO EPB standards providing the common European/Global EPB assessment method is:

- Functional: it works for all types of buildings and systems, New and Existing buildings
- Sensitive: it reacts to all available options and encloses both New and existing or old technologies to support a correct renovation evaluation for existing buildings
- Usable: it has clear data input, it is adaptable to context, and it provides suitable results for its scope, compliance with EP requirements and energy performance display (certificates)
- ... the EPB standards are comprehensive, traceable, realistic, adaptable ...
 - ... but also simple, short, compact, easy to read and software proof ...

Modularity is a real advantage. The «modules = standards» have similar properties and internal organization (structure).

- If you know the **structure of one**, you (nearly) **know all of them**
- You can **easily replace one with another one** for e.g. another type of generator, a default / special module (EN / national)
- Most of the EPB standards have an accompanying Technical Report, this TR includes all not-normative information, justification of assumption and examples, the organisation of the contents of the EPB standard and of the related TR are the same.

Flexibility/subsidiarity - apart from the normative text there are Annexes to the standard, important for national implementation

- Annex A / B approach: A includes an empty template for reporting the national choices, B includes default data that are ready for use
- Accompanying calculation spreadsheets: EPB Center publishes for all EPB standards with calculation procedures a spreadsheet to demonstrate the calculation procedure and the interconnection and needed input data and produced output data

EPBD revision will have impact on the use of EPB standards

- A more stringent policy regarding EPC's, their quality and acceptance will emphasize the role of a correct use of the set of EPB standards
- an **EU-harmonised GHG metric** will make use of the EN 17423
- Reducing the performance gap by improving the reliability of the asset rating is supported by the required hourly calculation step
- Hourly calculation step brings the use of the SRI to a next stage where the building and grid interaction will become visible and able to demonstrate the level of decarbonisation of the energy used by the building systems

EPBD revision & **EPB** standards Systematic Review (after 5 years)

- According CEN and ISO rules standards are revisited for review every 5 years after publication
- CEN/TC371 "Energy Performance of Buildings" considers (in cooperation with the 5 connected CEN/TC's and 2 ISO/TC's for the 52000 family) to **coordinate this review process** of the set of EPB standards
- In Europe where the EPBD is currently under revision it necessary to take this EPBD revision into account as well
- We already know that **some standards need some update** (editorial and/or technical updates)
- May also need to make standards better suited for software development which in turn makes the standards better accessible

