

FINAL CONFERENCE

Barcelona, 4 October 2024 ICAEN – Catalan Institute for Energy

12:00 | Round table 2

Enhanced energy performance certificate



The consortium has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No. 101033819 as part of the call "LC-SC3-B4E-4-2020 – Next-generation of Energy Performance Assessment and Certification".

TIMEPAC Vision

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Round table

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Enhanced EPC according to TIMEPAC vision

The new enhanced EPC shall meet 6 key requirements:

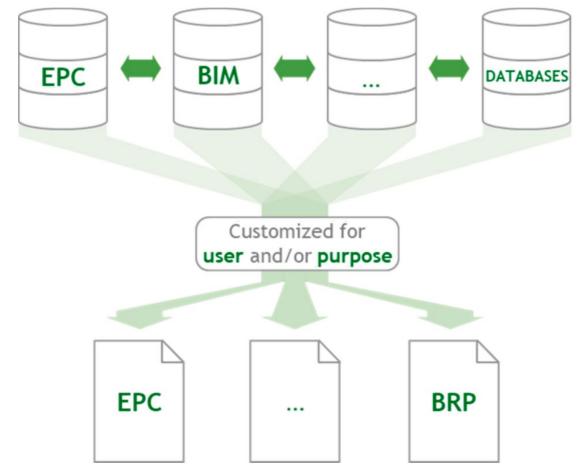
- Ensure better data quality and process reproducibility
- Include a broader set of parameters (holistic approach)
- Evaluate the impact of advanced technologies (e.g., adaptive building components, BACS)
- Provide a clear vision of the roadmap for building renovation towards the goal of zero emissions (with a link to the Building Renovation Passport)
- Be continuously updated (with integration of operational data)
- Being flexible with respect to the purpose and the user

What should be the architecture of the enhanced EPC?

Architecture of the enhanced EPC

The enhanced EPC should be part of an interconnected environment to facilitate user access to building data. This entails:

- Interoperability between various databases, including the cadastre, geographical, EPC, thermal energy plant register, statistical database, and BIM models
- Customization for specific audiences and final purposes, optimising the use of documents without significantly increasing processing time



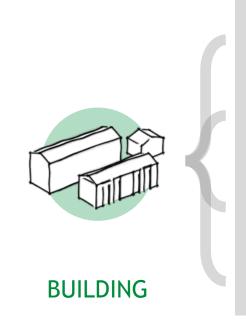
How can the EPC domain be expanded, and how can operational data be integrated?

Expansion of the energy certification domain

Certification should go beyond energy performance and include indicators of:

- Indoor environmental quality (IEQ), including indoor air quality (IAQ), thermal,
 visual, and acoustic comfort
- Environmental sustainability
- Affordability
- Climate resilience
- Smart readiness
- Safety
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Integration of operational data



DATA COLLECTION

Building documentation

Real energy consumptions

Field measurements

User behaviour questionnaires



STANDARDISED PROCEDURES

DATA ANALYSIS

Standard EP assessment

Tailored EP assessment

Model calibration

Indoor environmental quality assessment (IEQ)

Refurbishment intervention assessment (ECM)

BACS impact assessment



How can the quality of EPC be improved?

EPC quality improvement

Implementing robust processes to guarantee the accuracy and reliability of certificates:

- Quality check of all data processed and displayed in the enhanced EPC
- Specification of data sources and associated levels of uncertainty
- Determination of confidence intervals on those input data that have the greatest impact on building energy performance

Round table 2: Questions

- How can we ensure the quality of EPCs?
- What would be the added value of incorporating real-time or historical operational data, along with real static data, into EPCs?
- Would it be beneficial to integrate EPCs with additional certification frameworks, such as incorporating Life Cycle Assessment (LCA)?
- How could we integrate energy auditing, the Smart Readiness Indicator, and energy performance certification processes?
- What is the potential of creating national databases on the energy performance of buildings, and how could these be made interoperable with the EU Building Stock Observatory?
- How can EPCs be effectively utilised as a driving force for significant energy efficiency improvements in existing buildings?