



## Unlocking the potential of Energy Performance Certificates: a key to greener buildings

*Energy Performance Certificates are key to improving building efficiency, but their reliability and harmonisation remain challenging. With ambitious environmental targets at stake, Europe is racing to unlock their full potential and ensure they drive real change.*



Written by Diego Giuliani

In Europe, **buildings alone account for [40% of total energy consumption](#)** and for over one third of greenhouse gas emissions, associated with energy production. **“About 75% of the European building stock is energy inefficient,”** explains Rémi Collombet, Head of EU Policy of Efficient Buildings Europe, the leading industry association dedicated to advancing energy efficiency in Europe's buildings. **“This is a huge number, especially considering our goal of climate neutrality by 2050 and the fact that 85% of the buildings standing today will still be there in 2050.”** Furthermore, when looking at how they are powered, we see that [fossil fuels provide 80% of the energy](#). **“When you look at the roadmap to climate neutrality, we have 25 years to act.** This is a very short time,

during which we'll have to focus intensely on the building sector. So, if we're serious about climate action, we need to address the building sector," he exhorts.

According to some estimations, **better-performing buildings can see their market value increase by up to 15%**. Yet, a recent survey by the Brussels-based NGO [International Union of Property Owners](#) (UIPI) confirms that this is **not yet a major driver for undertaking renovations**, with owner-occupiers still primarily motivated by "maintenance," "preserving properties," "improving comfort," and "reducing monthly expenses." "Europe-wide, **there's growing awareness about energy efficiency**, and tenants are starting to ask for it, but it's not systematic yet. **Its added value in rent and sale depends on the local market**, and since the market is demand-driven, investments follow," explains [UIPI Secretary General Emmanuelle Causse](#). This may change due to heatwaves, but so far there's a difference between climate zones, and interest remains lower in southern countries, she adds.

With the climate clock ticking and our **environmental targets approaching**, a **European priority** is now to encourage homeowners to renovate buildings. Fostering bottom-up engagement and information is among the goals of so-called "[Energy Performance Certificates](#)" (EPCs). "**They measure the energy performance of buildings, just as the labels you find in stores measure the energy efficiency of washing machines**. To issue them, a technician goes on site to assess parameters such as insulation and heating and cooling systems, feeds all this data into software, and **the building receives a rating from A (energy efficient) to G (energy inefficient)**. This rating, which translates into a label, is accompanied by a report summarising all the assessments made and providing recommendations to improve the building's performance," explains Eva Segarra. PhD architect and researcher at [IVE, Instituto Valenciano de la Edificación](#), she also coordinates [IEPB](#), a European project aimed at overcoming existing deficiencies in design, implementation and synchronisation of EPCs with other certification instruments.

Indeed, **EPCs still suffer from limited coverage and lack of harmonisation** across European countries, which undermine **their acceptance by tenants and owners** and **reduce their effectiveness for policymakers**. "At the moment, in some countries, there's variability in the results provided by different certifiers. **This inconsistency needs to be addressed to gain people's trust**, especially since EPCs increasingly influence property prices and national-level requirements," says Collombet. **The urgency of rebuilding trust towards this tool, is confirmed by the outcome a UIPI survey**, asking landlords and property owners whether they considered them reliable: 40% of them answered "no", citing that they provide a limited assessment that does not account for all technical aspects of a building. Two in five expressed no opinion, and only one in five viewed them positively. "**Depending on the Member State, there are discrepancies in assessments, as well as differences in methodology and evaluative skills**, leading to inconsistencies in their ratings, resulting in limited trust by property owners and other stakeholders," echoes Causse.

This is also why the **iEPB project aims to enhance synchronisation of EPCs and other certification instruments**, such as the [Smart Readiness Indicator](#), and the [Building Renovation Passport](#). **“This lack of integration makes the evaluation process extremely costly, time-consuming and confusing** for both professionals and building owners,” explains Lucas Segarra. “Therefore, our idea is to counter this complexity by setting up what we call the ‘iEPB schema’, a common data model aimed at making all these assessments easier, cheaper and more reliable. **Using common data for all evaluations would simplify data collection, exchange and integration, and allow not only to spare time and money, but also make them more consistent and reduce the risk of mistakes.**” To make this data model accessible to operators, citizens, and building owners, Segarra and her colleagues are developing a web application too. **“It integrates EPCs, Smart Readiness Indicator, Building Renovation Passports**, and any other future building evaluations into the same digital system,” she explains. “This web application has two interfaces. One to guide professionals through the data collection process in an intuitive way, and one providing end-users with clear insights, and allowing them to trace the energy record of their building and evaluate the outcomes of renovations by making different versions of the same certificate accessible over time.”

Among the efforts to provide Member States with more reliable and accurate EPCs, the **need for a common database gathering data from all the European building stock was also recently stressed by the [revised Energy Performance of Buildings Directive \(EPBD\)](#), adopted last April**. Among its targets: zero on-site fossil fuel emissions for all public buildings by 2028 and the renovation of 26% of the worst-performing non-residential buildings by 2033. “The targets are really ambitious, and I’m not sure they will be feasible. **Households and individual owners are not opposed per se, but they need support. A lot also needs to be done in terms of raising awareness** to help them understand the benefits of renovation,” comments Causse. “The EPBD includes different provisions regarding standards for new buildings, renovation requirements, improvements to the EPC framework, and updates to technical building systems,” adds Collombet. “So, it provides a comprehensive enabling framework, but the challenge now lies in ensuring that it actually delivers results. **It’s great to have targets, but it’s even more important to have the means to achieve them.**”

Hence, his call to stakeholders to take action and engage with national governments without delay: **“In 2025, Member States will have a significant opportunity to design their [National Building Renovation Plans](#)**—roadmaps from now until 2050 for decarbonising and renovating the building stock. These roadmaps must be designed in consultation with all stakeholders at the national level. So, **this is the time for discussions to ensure alignment on the goals and how to achieve them.**”

Furthermore, the concerns over gas prices, heightened by growing geopolitical tensions, serve as a reminder that [48 million Europeans currently live in energy poverty](#). “This is not only a matter of energy inefficiency and climate change, but also of **public health, and very much a social issue**, as vulnerable households mostly live in the worst-performing buildings” continues Collombet. **“Tackling the energy efficiency of our buildings also means improving the lives of those who need it the most.”**

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For further information about iEPB and its objectives, please visit <https://iepb-project.eu/>

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