



Press release

Finally – a concrete definition of a “smart building” to be placed at the heart of EU policymaking as negotiations heat up

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Brussels, 2 June 2017 – The Buildings Performance Institute Europe (BPIE) today puts the finishing touches on its comprehensive work on smart buildings, providing a working definition of a ‘smart building’ and making detailed policy recommendations to encourage their growth. The current negotiations on the *Clean Energy for All Europeans* package are a final opportunity to shape the European building stock of 2030. This latest intervention comes at a crucial point in support of those pushing for more ambitious policy and a genuinely smart European building stock of the 2030s.

BPIE has further explored the concept of smart buildings with one question in mind: *What is a smart building?* Measuring how *smart* a building is, depends on the capacity of its functions and the degree to which different components interact and complement each other. BPIE considered all these aspects and has come forward with a concrete definition of a smart building, placing energy efficiency at its heart.

For smart buildings to become a success story, multiple benefits must be recognised on an equal footing. Buildings have the potential to be at the forefront of providing flexibility for the energy system, including through energy production, control, storage and demand response, as well as providing a means to integrate electric vehicles. Just as importantly, smart buildings must enable a healthy and comfortable living and working environment for their occupants. But analysis has shown that more must be done in this area.

BPIE is clear that both market and legislative frameworks need to allow buildings to connect to and interact with the energy system. But this is not always the case across Europe. In fact, the legislative framework is one of the biggest barriers to the widespread penetration of smart buildings. And current policy discussions lack ambition to encourage buildings to play their role as micro energy-hubs.

The BPIE policy paper recommends ways that the *Energy Performance of Buildings Directive*, the *Energy Efficiency Directive*, the *Renewable Energy Directive* and the *Electricity Directive* should be strengthened to ensure buildings can take up a leading role in the energy transition, at the same time as ensuring high building performance, dynamic operability between components of a building and its occupants and responsiveness of buildings to interact with the energy system around them. These components must be embedded in the criteria for judging whether a building truly is a *Smart Building*.



Find the reports at the following links:

<http://bpie.eu/publication/smart-buildings-decoded-a-concept-beyond-the-buzzword>

&

<http://bpie.eu/publication/opening-the-door-to-smart-buildings>

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Notes to the editor

- **BPIE definition of a smart building (2017):**
A smart building is highly energy efficient and covers its very low energy demand to a large extent by on-site or district-system-driven renewable energy sources. A smart building (i) stabilises and drives a faster decarbonisation of the energy system through energy storage and demand-side flexibility; (ii) empowers its users and occupants with control over the energy flows; (iii) recognises and reacts to users' and occupants' needs in terms of comfort, health, indoor air quality, safety as well as operational requirements.
- BPIE study on "[Is Europe ready for the smart buildings revolution?](#)" (2017) finds that that no Member State is fully prepared to take advantage of the benefits that smart building technologies will entail.
- BPIE study on "[Smart buildings in a decarbonised energy system](#)" (2016), sets out 10 principles making the case for buildings to be at the core of a decarbonised energy system, producing, storing and supplying energy, making the energy system more flexible, resilient and efficient.

About BPIE

The Buildings Performance Institute Europe (BPIE) is a European not-for-profit think-tank with a focus on independent analysis and knowledge dissemination, supporting evidence-based policy making in the field of energy performance in buildings. It delivers policy analysis, policy advice and implementation support. www.bpie.eu