

PRESS RELEASE

Better regulation needed to guarantee efficient and healthy buildings

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Brussels, March 19 – In a report released today, BPIE identifies gaps in regulation to ensure that European citizens live in highly efficient, healthy, comfortable and well lit buildings. The study analyses how indoor air quality (IAQ), thermal comfort and daylight are regulated in 8 Member States' legislation for new and existing residential buildings. Surveyed countries are Belgium (Brussels Region), Denmark, France, Germany, Italy, Poland, Sweden and the UK (England and Wales).

Key aspects to ensure good conditions for building occupants include thermal comfort, indoor air quality and daylight. Between 30 to 50% of excess winter deaths can be attributed to cold indoor temperatures¹, demonstrating the importance of thermal comfort and its link to fuel poverty². Despite these links, the requirements for indoor air quality and thermal comfort are not comprehensive and clear enough in the eight surveyed countries. Considering that people spend 60 to 90% of their life in buildings, the subject should get a prominent space in legislation.

Even though all 8 countries acknowledge **ventilation's** benefits, only 4 Member States make it mandatory. Requirements for **heat recovery**, which can compensate the energy lost from ventilation, are scarce in the national codes for new buildings.

For renovations, legally-binding requirements such as minimum ventilation rates, airtightness or limitation of pollutants can hardly be found in the analysed codes. Few countries check **compliance** with indoor air quality or thermal comfort standards and if so, mainly at the design stage rather than by performing on-site measurements.

All surveyed countries include at least a basic reference to **daylight** (an important element to achieving a good indoor environment with a major impact on the inhabitants' health³) in their building codes, but only France, Italy and Poland have integrated it into their legislation for new buildings. Only some building codes (Brussels, Denmark, Germany) mention the view to outside as an important part of visual comfort. No requirements have been identified across the surveyed codes stipulating minimum daylight preservation when renovating a building, except in the UK where the regulation "Right to Light" is in place. This regulation secures that changes to neighbouring buildings must not reduce daylight availability in existing buildings.

At the EU level, while indoor climate is mentioned in the EPBD, the importance of indoor air quality, thermal comfort and daylight has to be strengthened in a future recast. These aspects could be integrated in the Energy Performance Certification process as relevant information of the actual living conditions in the building. The co-benefits of thermal comfort and a healthy indoor environment should be taken into account when assessing the macroeconomic impact of

¹ World Health Organization, "Environmental burden of disease associated with inadequate housing", http://www.euro.who.int/_data/assets/pdf_file/0003/142077/e95004.pdf

² Some of these factors and consequences were previously studied by BPIE in the 2014 study "Alleviating fuel poverty in the EU. Investing in home renovation, a sustainable and inclusive solution" Available at: http://bpie.eu/fuel_poverty.html

³ Lighting Research Center, "Daylighting Resources-Health". Available at: http://www.lrc.rpi.edu/programs/daylighting/dr_health.asp#sad



energy renovation measures (e.g. reduction of health service costs). Such requirements should also be reflected in national renovation strategies as developed under articles 4 and 5 of the Energy Efficiency Directive.

The full report will be available from Tuesday at www.bpie.eu/indoor.html

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NOTES TO THE EDITOR

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 and www.buildingsdata.eu