

## **PU Europe comments on the Analysis and evaluation of 3<sup>rd</sup> draft criteria for Buildings and next steps**

### **General comments:**

- PU Europe welcomes the drafting of this study, which provides a detailed and well thought overview of existing ecological and sustainability labels in Europe and overseas.
- PU Europe fully supports the general approach which emphasizes the need to assess the building level, instead of focusing on its parts, and to put the focus on the building's energy efficiency as the major ecological life-time indicator.
- On the other hand, the study fails to explain the added value of a European Ecolabel in addition to national and international ecological and sustainability labels. Would the European label really address a market need?
- The study also mixes up ecological and sustainability labels. While the first only looks at the environmental performance, the latter assesses also the social and economic performance (the so called people – planet - profit approach). No explanation is given why an ecological label is needed whilst society moves towards sustainability targets. PU Europe firmly believes that, given the cost and life time of buildings, all three pillars of sustainability need to be taken into account.
- Finally, the study should provide a more exhaustive discussion on system boundaries. All available and quantifiable environmental impact parameters which industry can provide relate exclusively to the life cycle phases of the building itself. While the building's location and user patterns certainly affect the burdens caused by a building over its lifetime, they are not directly related to the performance of the building itself and might significantly change over time (new bus line, new users etc.). PU Europe strongly suggests that the system boundary is the building.

### **Detailed comments:**

#### ***Page 10, 4<sup>th</sup> paragraph:***

- Given the fact that the use of air conditioning is rapidly growing even in moderate climates, the share of current and future cooling energy use in total energy demand should be highlighted.

#### ***Page 11, 2<sup>nd</sup> paragraph:***

- We are not convinced that “offices are usually integrated in mixed buildings”. We believe that a very large number of “pure” office buildings exist across Europe with most of them having a significant savings potential. The E<sup>2</sup>APT<sup>1</sup> report may be used as a source for the quantification of the European building stock.

#### ***Pages 12-13, chapter 2.2.1:***

- The first paragraph is somewhat confusing. There is no clear correlation between the complexity of a product and its embodied energy. Very simple products may require very high temperatures in the production phase leading to high embodied energy. Other products, such as wood and plastics contain feedstock energy a part of which can be recovered at the end of the product life (Waste to energy) even if the product itself is complex.

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<sup>1</sup> E<sup>2</sup>APT, The Fundamental Importance of Buildings in Future EU Energy Saving Policies, page 4 (2010)

- The statement that “the final (plastics) product contains only 0.002% of the raw material used for its manufacture” does not provide any information on embodied energy as it just shows that raw materials may undergo chemical reactions in the production process of the construction product. We believe this phrase should be removed.
- PU Europe can generally support the conclusions in the last paragraph of this chapter except the proposal that low embodied energy materials should be favoured. This is in contradiction to the study’s general approach that the performance of product can only be assessed at the building level. This is particularly true for thermal insulation.

**Example:**

*Insulant A may have only half the embodied energy of insulant B. However, as insulant B has a lower thermal conductivity and a longer life time (100 years versus 30 years), a far higher quantity of insulant A would be needed over the building’s lifetime to meet its thermal efficiency requirements. Comparisons can only be made at the building level.*

**Page 14, chapter 2.2.2.1:**

- The seventh paragraph highlights the German situation. It does however not appear sensible to indicate thickness of insulation layers. Depending on the insulant used, the thickness of the insulation layer may have to be doubled to achieve the same U value for the building component. Furthermore, the term “average specific energy consumption” may be misleading and should be replaced by “energy demand”. We also believe that the numbers given refer only to new build. Existing buildings have a far higher energy demand. This should be clarified.

**Page 15, chapter 2.2.2.2:**

- The chapter should address LED lights which are likely to replace fluorescent lighting in the near future.

**Page 19, chapter 2.4:**

- The fifth paragraph addresses construction waste and includes “unwanted material produced ...by industries”. If this term referred to production waste, this definition would not be correct. It should only include “on-site waste”.
- The paragraph also states that construction waste may contain asbestos. To the best of our knowledge, the use of asbestos is banned from buildings and it should therefore not occur in construction waste.

**Page 23, chapter 2.5:**

- “Recovery” should be added between “recycling” and “landfill”. If a waste product cannot be recycled / reused, or the environmental burden to do so would be too high, sending the product to waste-to-energy plants should be favoured over landfill.

**Page 28, chapter 3.2.1:**

- As to the second paragraph, to the best of our knowledge, the certificates should be less than 10 years old.

**Page 29, chapter 3.2.3:**

- The term to be applied in the second paragraph is “nearly zero energy buildings” instead of “very low energy”.
- We are not aware that the directive requires buildings to produce at least as much renewable energy as they consume as from 2019. Instead, the term “as far as possible” is applied.

- The recast directive introduces important requirements regarding the setting of component requirements and the need to upgrade components when they are renovated. This should be added to the report.

**Page 30, chapter 3.2.4:**

- The first phrase is not correct. The 20% refer to an indicative target. It is generally recognised (even by the European Commission) that this target will not be met<sup>2</sup>.
- The third phrase contains a mistake, as the directive's aim is certainly not to "reduce the energy performance of end consumption".

**Page 30, chapter 3.2.5:**

- The first paragraph needs rephrasing. It should refer to the essential requirements for works (including buildings) and not products. It would not be sensible to require each product to save energy or provide mechanical strength.

**Page 34, chapter 3.3.6:**

- It should be noted that the Nordic Swan has published new Ecolabel criteria for small buildings which entered into force in 2010.

**Page 35, chapter 3.3.7:**

- The sixth paragraph speaks of "sustainable building materials" without providing a definition of this term. PU Europe again emphasizes the need to determine the sustainability of construction products at the building level (specific design requirements). Product A may provide a more sustainable solution for building design X, while product B leads to a more sustainable building Y. Sustainable building materials as such do not exist and this term should hence be removed.

**Page 40, chapter 3.7:**

- This chapter does not provide any useful information to the report. It is not exhaustive, describes certain initiatives in a patchy way and is not directly linked to the subject of the study. We propose that it should be removed.

**Pages 42-43, chapter 4:**

- The recast EPBD includes a shortened definition for buildings: "Building means a roofed construction having walls, for which energy is used to condition the indoor climate."
- In the second paragraph of page 43, it is stated that the development of EU ecolabels promotes the harmonisation between different national labels. This is unfortunately not true. Labelling and certification are very profitable activities. We are not aware of any European Ecolabel that replaced national labels or led to their harmonisation. National labels tend to move to other / additional criteria to maintain their market.

**Page 68, chapter 6:**

- Throughout the chapter, it should be made clear which assessment / comment is proposed by the JRC and which ones were submitted by stakeholders.

**Page 69, point 11:**

- Whereas PU Europe could theoretically support this proposal, the practical application of this standard would be difficult for insulation products. The label cannot be moulded in the product

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<sup>2</sup> Energy Savings 2020: how to triple the impact of energy saving policies in Europe, European Climate Foundation, 2010 ([http://www.roadmap2050.eu/contributing\\_studies](http://www.roadmap2050.eu/contributing_studies))

surface as this would affect the insulation performance. It should be accepted that the label is durably printed on the surface (facing).

**Page 71, point 44:**

- The proposal in the third paragraph is too complex to be implemented in practice. There are only very few eco-labelled construction products and many of them may only be available regionally as produced by SMEs. It will not be easy to find out which product is available in which region. Transporting products across Europe would be in contradiction to other Ecolabel requirements (local sourcing). Moreover, as type I ecolabels are voluntary schemes, public procurers cannot impose them. They must always accept equivalent evidence.

**Page 77, point 24:**

- The requirement regarding the content of hazardous substances is not acceptable. It goes far beyond any European and (probably) national legislation and would automatically exclude all natural products such as wood. The testing cost for all products would disproportionate.
- On the other hand, PU Europe strongly supports very ambitious requirements for the indoor air quality based in emission limits (see next point).

**Page 77, point 25:**

- The standards quoted here do not contain any emission thresholds as this is the responsibility of national regulators. Member States may set requirements for the indoor air as such or for each construction product. As the product group covered by this study is buildings, the assessment should be done at the building level. For example, the Ecolabel could require that emissions to the indoor air must be 10 or 20% below the most demanding national scheme.

PU Europe hopes that these comments provide a useful contribution to the report.

Brussels, 15<sup>th</sup> November 2010