

European Concrete Platform

Comments to GPP draft criteria proposal for Office Buildings

General comments

The European Concrete Platform (ECP) welcomes initiatives aiming to promote environmentally friendly buildings.

We insist that there must be consistency between approaches proposed by different parts of the European Commission, such as between this work on GPP and the work stemming from the Communication on resource efficiency opportunities in the building sector (COM(2014) 445).

The voluntary EU GPP criteria should also be consistent with the existing voluntary green building certification schemes, such as LEED (many countries), BREEAM (many countries), Verde (Spain) and DGNB (Germany). Otherwise the EU GPP criteria will be an additional burden, duplication of work and additional cost for designers wishing to attain such certification and also win public procurement contracts.

Below, please find some comments on the specific criteria proposed.

B1

Dynamic models should be used in all cases to calculate the designed energy performance (not just for major renovations as stated in the text). Dynamic models are preferable to steady-state models as they allow dynamic (time-related) effects that contribute to energy efficiency, such as thermal capacity, to be included.

(E.g. make reference to standards EN-ISO 13790 and EN-ISO 13786)

B7.1

Thermal comfort is not just about minimum or maximum values, but also stable internal temperature and avoiding summertime overheating.

B 10.1 Performance of the main building elements

The “option 1: Aggregation of Environmental Product Declarations (EPDs)” doesn’t result in the proper assessment of the performance of building elements. Indeed, the aggregation of EPDs sum up the components but this is not equal to the performance of the building, because it doesn’t take into account important issues such as: assembly, lifetime of the building and end of life.

Therefore the ECP believes that “option 2: Carry out Life Cycle Assessment” is preferable to option 1.

However, if this is based on the Bill of Quantities alone, it is not a full LCA as it does not cover all the life cycle stages. What is the guarantee that gains made under B 10.1 do not detrimentally affect use-phase performance of the building, i.e. criterion B1? A full LCA should include the use phase.

Therefore, this criterion should somehow be integrated with or weighed against criteria B1 and B 10.2.

B 10. 2 Incorporation of recycled content in concrete, masonry and insulation

The ECP does not agree with the criterion proposed. It is not always a given that recycled material has the least environmental impact.

First, the distance between the source and construction site could result in additional transportation, which has high environmental impact. An example is the London Olympics where recycled material was transported long distances in order to comply with the rules, while obviously it had worse environmental impacts than using local, abundant natural aggregates.

Second, the availability of the recycled material is variable. In case of structural concrete, substitution of virgin aggregates should be done where the technical, economic and sustainability benefits are clear.

Therefore, a minimum recycled content requirement is not acceptable. Nevertheless, a willingness to use recycled material could be encouraged in some way. For example, points could be awarded for having carried out an analysis of local availability of recycled material (and justifying, on this basis, the decision to use recycled material or not).

Alternatively, a responsible sourcing scheme, such as BES 6001, could be used in place of this criteria.

Annex 1

1.4c

- There is a contradiction between the use of EPDs to evaluate based on a simple Bill of Materials (criterion B10.1), and the requirement for EPDs that “address cradle to grave”.

A full life-cycle assessment including all life-cycle stages of the building is preferable, as noted in our comment to B10.1. Cradle to gate construction product EPDs are therefore relevant in providing the data for Module A (according to the CEN/TC 350 definition) in this full life-cycle analysis.

1.4e

The full list of indicators according to EN 15804 should be used.

Additional comments

Responsible sourcing of materials

There should be a criterion on the responsible sourcing of all materials (not just timber). Schemes evaluating this aspect exist for construction products, such as BES 6001 or the scheme being developed by the Concrete Sustainability Council.

Fire Safety of buildings

The ECP calls for a criterion for fire safety in buildings. The safety of occupants of office building should be a priority for a sustainably built building. Even though the environmental concerns should be more accentuated in the EU GPP criteria, some social consideration such as fire safety and well-being of occupants should be taken into consideration as well.

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The European Concrete Platform ASBL (ECP) is a European association with membership comprising BIBM (European Federation for Precast Concrete), CEMBUREAU (European Cement Association), EFCA (European Federation of Concrete Admixtures Associations), and ERMCO (European Ready Mixed Concrete Organisation). The ECP covers concrete-related issues at European level, including the energy performance of buildings, fire safety and Eurocodes. Its objective is to study and promote all the benefits of concrete for construction.