

ENVIREO - RECOMMENDATIONS TO EU DECISION-MAKERS

CAP'EM Project (Cycle Assessment Procedure for Eco-impacts of Materials)

The CAP'EM project: the eco-design of the building envelop

CAP'EM (Cycle Assessment Procedure for Eco-Materials) is a European project, funded through the Interreg IV B programme for North-West Europe. It gathers 11 partner organizations from 5 EU countries (Belgium, France, Germany, Netherlands and United-Kingdom). The project, initiated in 2010, will run until September 2014.

The objective of CAP'EM is **to improve the production, distribution and use of environmental-friendly products**, in order to:

- **Allow the eco-design of the building envelop...**
- **And thus reduce the environmental impact of the construction and renovation phase...**
- **While providing the professionals of the construction industry with simple, free and practical tools and information to support the adoption and the use of eco-materials.**

An ambitious and successful project

To fulfill its objective, CAP'EM's partners worked on the following six pillars:

- **The development of a shared methodology** for the life cycle analysis of the environmental and health impacts of construction materials. Based on the work and recommendations of the European Commission's Joint Research Centre (ILCD Handbook) and on existing national, European and international standards (notably ISO and CEN standards), the methodology goes beyond than existing norms and defines new in-depth parameters, allowing a stronger coherence and a better analysis of the environmental impact of materials.
- **The creation of a data base**, resulting of a "cradle-to-gate" life cycle analysis of over 60 materials, along with the use of existing data. The data base gathers technical criteria and environmental impacts and *de facto* provides the users with a free LCA tool. CAP'EM partners organized an Info Day to present the data base and its potential to over 120 actors from the construction sector.
- **The development of the web tool "CAP'EM COMPASS"**, a user-friendly and free website to help in the choice of construction product by providing users with a comparison of the strengths and weaknesses of construction materials (e.g. on performance, environmental impact...).
- **A network of demonstration buildings**, to give concrete examples of good practices for both new and refurbished buildings. Along with the web tool, the demonstration buildings aim at raising awareness and allowing skill improvement for the actors of the sector.

- **The dissemination of the evaluation results** for the selected eco-materials, *“to provide grist to the scientific mill”*.
- **Through its involvement in the Product Environmental Footprint (PEF) initiative**, CAP’EM gives the opportunity to eco-materials manufacturers (i.e. mainly SME) to take part in the process of shaping a regulation on environmental product declaration at European level.
- **Actions with education institutes** at all levels aiming at mainstreaming sustainable building and the use of eco-materials. The aim is to put sustainable building on the curriculum of the students at all levels and train professionals who are used to work in a sustainable way and are able to address the upcoming key challenges of the construction sector.

Recommendations to EU decision-makers

1. Build on a sound basis

The first step towards a harmonized and coherent framework at European level in the field of eco-materials is to encourage all actors to move in the same direction. To that end, CAP’EM partners aim at making life cycle thinking available to all actors of the construction sector, and accompany them along the process.

CAP’EM partners call for an increased dissemination of life cycle thinking, and support the creation of a European Cost-Performance-Comfort index allowing all actors to refer to a common instrument. CAP’EM partners would be keen to contribute to the development of this index.

2. Build a sustainable future

The construction sector is a major contributor to EU Greenhouse gas emissions. Reducing the environmental impact of the building envelope through the use of eco-materials is a key process to achieve European objectives to reduce GHG by 80 to 95% by 2050. Furthermore, eco-materials guarantee more sustainability than traditional materials and thus reduce maintenance costs for end-users. Finally, the sector of sustainable construction constitutes a real European know-how and could become a strong basis of EU’s competitiveness and reputation at the international level.

CAP’EM partners support the introduction in future EU legislation of economic incentives to promote eco-materials. A binding objective for the use of eco-materials in new buildings is also a key measure to ensure a sustainable future for the construction sector.

3. Build on European experience

Lack of transparency and the difficulty to find reliable data on eco-materials have been identified as a major barrier to the adoption of ecological building products. The methodology and website developed by the European project CAP’EM directly tackles this hurdle and makes available tailor-made data for professionals from the construction sector at no cost. Furthermore, CAP’EM partners experienced their own recommendations on sustainable buildings and provide demonstration sites for stakeholders wishing to follow their track.

CAP’EM partners suggest the European institutions to encourage actors from the construction sector to make use of these existing European methodology and website, and to advertise on the demonstration sites situated all across Europe.