Network for building purposes equipment environmental declarations - Towards a Harmonised System?

Etienne LEES-PERASSO, Julie ORGELET, Axel ROY, Damien PRUNEL
Bureau Veritas CODDE, 170 rue de Chatagnon - ZI Centr'alp, 38430 Moirans, France

Throughout Europe, the increasing demand on performance proofs from public bodies, construction leaders and end customers motivates manufacturers to communicate on the global environmental performance of their products. In parallel, there is a strong willingness of data transparency and credibility, so that accredited standardisation organisations have been working on defining more restrictive rules for the display of the environmental impacts of products.

Several ways exist to answer this need: type III environmental labelling (FDES[1], IBU[2], EPDs[3] for the building equipment, PEP Ecopassport® programme[4] for the EEE[5]. However, methodological differences remained a limitation to assess the global life cycle impact of a building.

There is now a common framework with the new EN 15804:2012 standard. It sets PCR[6] for EPDs related to building products (building materials, EEE and climatic engineering products). Its implementation aims at harmonizing the different methodologies developed in Europe for communicating on environmental performances of building products. This standard has been notably used in French regulation through the decree. Similar regulations are under study in Belgium and Spain.

Though, some discrepancies remain, and some difficulties arise specifically for the EEE sector.

The main problem to be addressed is that this standard is mainly expressed for the building material world and not the EEE sector; this is thus a sectorial problem. The building equipment and EEE sectors are quite different in terms of materials, processes and logistic chains. Secondly, there is also a lack of common standards giving a frame for environmental issues. Finally, the exploitation of results from EEE environmental declarations can be difficult. The notion of study perimeter, functional/declared unit and reference service life time are different in the two sectors.

Therefore, how to compare two products set by a declared unit while they do not work the same amount of hours? For instance, two different types of EPDs in compliance with the EN15804 can make the comparison possible between two luminaires (IBU). As the first EPD does not inform the same number of operational hours as the second does, it remains impossible to find a common basis from which comparing these luminaires.

Some global issues also remain. The different applications of the EN15804 so far have led to divergences in terms of comprehension of the standard and to the addition of specific requirements. A declaration established in one country is not necessarily usable in another one.

In order to overcome those difficulties, a European-wide non-profit organization, the Eco Platform, is currently working on ensuring mutual recognition and compatibility between programs and regulations. Their work gathers European environmental program members and users in order to discuss and solve the issues.

Another approach that might lead to a better harmonisation is the upcoming building LCA and environmental declarations. As architects and contractors in the building sector will perform LCA of whole buildings, they will use building equipment environmental declarations. Compatibility and modularity of those assessments will then become a strong requirement, and the declarations conforming to those principles will have an advantage during the suppliers and materials selection. Therefore the market could shift due to this incentive and the contractors could define the required format *de facto*.

[1] « Fiches de Déclaration Environnmentales et Sanitaires » standing for Environmental and Health Declaration Formats
[2] "Institut Bauen und Umwelt" standing for Institute Construction and Environment
[3] Environmental Product Declaration
[4] Product Environmental Profile
[5] Electronic and Electrical Equipment
[6] Product Category Rules

On a larger scale, actual harmonization works are in progress to limit the differences between the EN15804 standard and the PEF/OEF guidelines. The outcome of this work is still uncertain.

In conclusion, there used to be no common framework for the building product EPDs in Europe. The EN15804 standard has provided a first step into this harmonization. It has, and it will replace as it goes along previous formats of documentation. Nevertheless, it has appeared that this standard still doesn't lead to a full compatibility between declarations, notably in the EEE sector, and does not allow the use of compatible declarations to globally conduct the LCA of a building yet.

But the harmonization is still ongoing with the Eco Platform work and EN 15804 standard evolution, and the environmental program declaration as well as the regulation might evolve within the next few years. This evolution may possibly bring new difficulties along a better harmonization.

In this context, it is important for EEE sector companies performing LCA and environmental declaration to keep up to date with the latest evolutions so to anticipate the future regulatory and market needs.