

## **Supporting a sustainable circular economy through recyclable products and sound recycling practices in the building sector**

3 May 2015

METALS FOR BUILDINGS is an alliance of eleven European or international metal associations active in the building sector. METALS FOR BUILDINGS represents the interests of the metal industry to European institutions and promotes the sustainability and recyclability of metals in the construction sector.

METALS FOR BUILDINGS strongly supports an EU Circular Economy. Metals have already long upheld this concept since they have been efficiently and systematically recycled for many decades. After the withdrawal of the initial Commission proposal, METALS FOR BUILDINGS looks forward to a more simplified, less prescriptive and in particular a sectorial approach.

METALS FOR BUILDINGS identified the following issues in the part addressing resource efficiency in the building sector of the previous communication package:

- No distinction between recycling and backfilling for reaching the reuse and recycling target of construction & demolition waste
- No method to acknowledge the reusability or recyclability of products
- No reference to the Construction Product Regulation and the 7<sup>th</sup> basic requirement for construction works (BRCW7) concerning the “sustainable use of resources”.
- No reference to the standards and methods developed under CEN/TC350

These issues are developed in the following sections:

- No distinction between recycling and backfilling for reaching the reuse and recycling target of construction & demolition waste

Proposed recycling criteria and targets do not distinguish between “cradle to cradle” and “cradle to grave” concepts. Promoting a sound and sustainable circular economy must be based on continuous product or material cycles without losing product or material integrity or quality. In particular, end of life practices such as backfilling which stop the virtuous material cycle should not be considered as recycling and should be clearly excluded from any recycling target or practice. Once materials are backfilled at end of life, they exit the material loop and the circular economy. METALS FOR BUILDINGS highlighted this issue in September 2013<sup>1</sup>. This issue is still unresolved and is compounded by this new communication. **METALS FOR BUILDINGS urgently requests adding a specific Construction & Demolition Waste target for re-use and recycling to complement the present overall recovery target described in Art. 11§2 (b) of Directive 2008/98/EC which mistakenly includes all**

<sup>1</sup> <http://www.metalsforbuildings.eu/position-papers/>

recovery operations including backfilling, energy recovery and recycling without any distinction. This issue was specially addressed within a position we published in October 2014 (see <http://www.metalsforbuildings.eu/position-papers/> )

**In parallel, METALS FOR BUILDINGS asks ALL types of backfilling, i.e. without exceptions, to be excluded from the proposed new wording for article 6§2 of the Waste Framework Directive.**

When a metallic building product reaches the end of its life it is fully recycled. Today more than 95% of the metallic products used in buildings are collected at end-of-life. Small and medium-sized companies play a key role in the collecting and processing of metal-containing products on their journey to metal-recycling installations. High economic value is the main driver for this systematic collection and recycling. As metal recycling provides not only raw material savings but also energy savings of between 60% and 95% compared to primary production, metal recycling creates a win-win situation for both the environment and the economy. The reuse or recycling of metallic building products with no loss of properties saves resources and supports an environmentally-sound circular economy concept by keeping material integrity and quality. This is not the case for backfilling or energy recovery processes.

- No method to acknowledge reusability or recyclability of products

A circular economy cannot rely solely on recycling at the end of life. An important starting-point is the initial design of products. Products should be designed not only to be used longer, to be more durable and to be more easily repaired, but also to be more easily reused or recycled. Hence, promoting better design for disassembly, re-use and recycling at the early stage of the product fabrication is also an important part of the equation.

As stated in Article 4 of the Waste Framework Directive, regarding the application of the waste hierarchy, Member States shall take measures to encourage the options that deliver the best overall environmental outcome. In this context, promoting re-use/recycling only makes sense if it results in tangible environmental benefits. This is the case when the environmental benefits due to raw materials savings exceed the environmental burdens of the recycling operations. **Assessing properly the resource savings and environmental benefits resulting from re-use/recycling is crucial to support a sound circular economy and to reflect the true recyclability of the product.**

- No reference to the Construction Product Regulation and its 7<sup>th</sup> Basic Requirement about the “sustainable use of resources”.

In the building sector the “sustainable use of resources” is now addressed in the Construction Product Regulation through the 7<sup>th</sup> basic requirement for construction works (BRCW7). In addition to the production aspects of the building and its

durability, BRCW 7 requires an assessment of the recyclability of the construction works, their materials and parts after demolition. Hence, this new requirement directly supports a sound circular economy concept in the building sector and should have been directly referred to in this circular economy communication.

- No reference to standards and methods developed under CEN/TC350

For assessing environmental aspects of building products and buildings, European standards have been developed within CEN/TC350 “building sustainability”. These standards<sup>2</sup> define rules to develop environmental product declarations for building products and to assess the environmental performance of buildings throughout their life cycle. In particular, the benefits resulting from the end of life stage are addressed through a separate module (Module D) where the primary resources saved through re-use, recycling and energy recovery are reported. Maximizing resource efficiency at the end of life stage means looking not only at the burdens of the deconstruction and demolition operations but also at the positive effects of reusing secondary materials in applications where they efficiently substitute raw materials and where they are kept in the material loop . As demonstrated in a technical document developed by the French association of producers of construction products (AIMCC)<sup>3</sup>, this approach is the best methodology to demonstrate that end of life operations are effectively turning waste into valuable resources. This methodology is applicable not only to metals but also to any building material or product which is effectively recovered or recycled at the end of life stage. In addition, this approach allows the sector to integrate the “design for recycling” or “design for deconstruction” concept into the product development strategy and the corresponding Environmental Product Declaration (EPD).

The following annex reports how this standard and in particular how Module D supports a sound circular economy concept. Directly referring to these standards and Module D in particular would be highly beneficial to promote a sustainable circular economy.

**METALS FOR BUILDINGS calls for a true recycling target for Construction and Demolition Waste to be set and to use a Life Cycle Assessment methodology reflecting properly the recyclability of products. These are two essential elements for supporting a sustainable circular economy.**

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<sup>2</sup> EN 15804, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products - EN 15978, Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method

<sup>3</sup> AIMCC - Technical Proposal for taking the net benefit of recycling construction material stocks into account in construction product Environmental Product Declarations (EPD) - ENV11032 DE

## Annex 1: Using EN15804 for assessing the recyclability of products and the soundness of end of life strategies

The Basic Work Requirement n°7 of the Construction Product Regulation requires assessing the recyclability of buildings or building parts:

*“The construction works must be designed, built and demolished in such a way that the use of natural resources is sustainable and in particular ensure the following:*

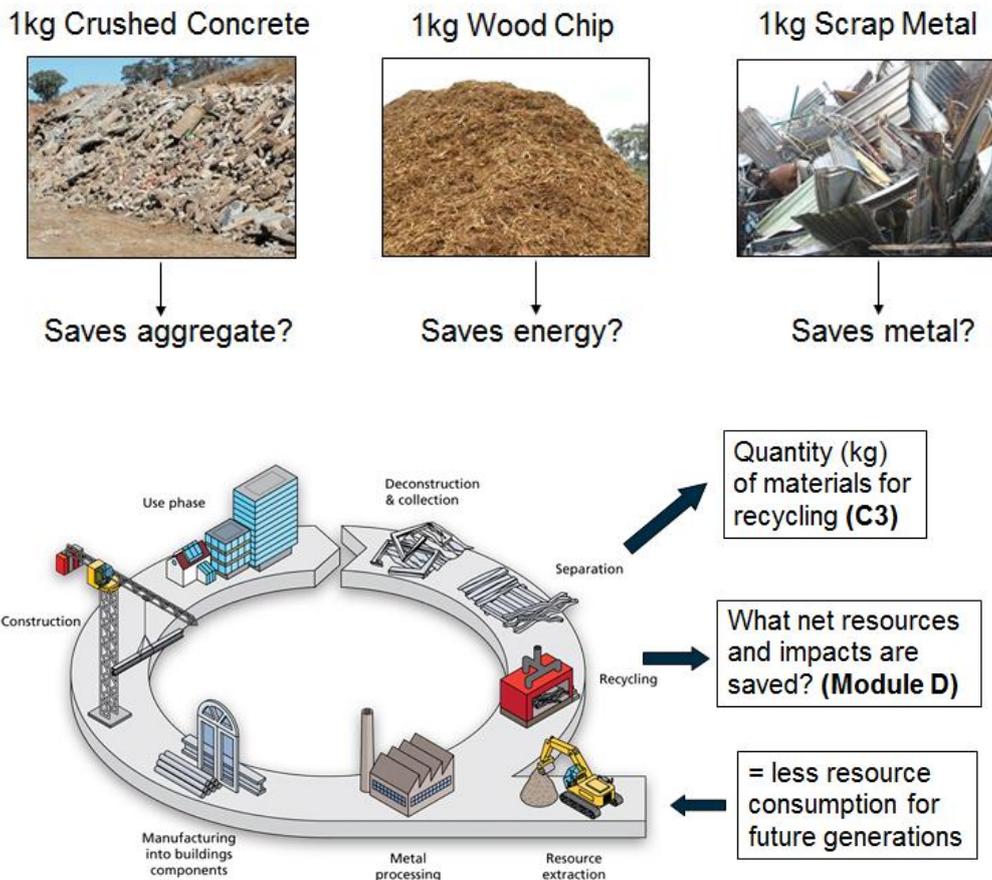
*(a) reuse or recyclability of the construction works, their materials and parts after demolition;*

*(b) durability of the construction works;*

*(c) use of environmentally compatible raw and secondary materials in the construction works.”*

The intention of BWR7 (a) is to conserve natural resources through a sound ‘circular economy’.

For such purpose, assessing the quantity of materials for reuse or recycling is surely not sufficient:



**Both the quantity and quality (environmental value) of reuse and recycling need to be demonstrated = Module D**

Mass of materials for reuse and recycling or energy recovery is an insufficient indicator of the recyclability of materials.

### **Assessing the environmental value of recycling is essential**

Only Module D can provide such information on:

1. The value (loads and benefits) to the environment of such recovery operations
2. The extent to which resources invested in the original product are re-circulated

These are true indicators of recyclability

### Conclusion

- Module D information is essential in order to respond to BRCW7 of the Construction Products Regulation
- Module D provides information on:
  - Resources saved
  - CO<sub>2</sub> emissions saved
- Module D provides transparency on the value of reuse, recycling and energy recovery
- Module D supports a sound implementation of the waste hierarchy