



## Comparisons of environmental impacts of packaging made from different materials: Position paper by French packaging council (CNE)

### 1/CONTEXT AND GOAL

Various business players present comparisons of the environmental impacts of packaging made from different materials.

French law n°2009-967 from August 3<sup>rd</sup> 2009, called Grenelle I requires that "consumers must have accurate, objective and thorough environmental information regarding the overall product-packaging characteristics".

Comparisons on packaging alone are too often based on a limited number of criteria (one or two), which doesn't stop these business players from claiming that some packaging types would be more virtuous than others.

**CNE considers that current comparisons which do not take all impacts into account are not acceptable.**

CNE is therefore proposing a methodology to make these comparisons sound and relevant for consumers.

This methodology is approved by all the players in the packaging value chain that are part of CNE and is designed to establish a framework for objective and fair communication.

### 2/REGULATIONS/STANDARDS/METHODS

The CNE points out that environmental impacts assessments must be conducted with complete life-cycle assessment (LCA). They are based on standardized tools (ISO 14040 and 14044) available for the companies.

These assessments must be:

- Multi-step: from extracting raw materials and generating resources to end-of-life management and final elimination, without leaving out production stages and utilization.
- Multi-criteria

For packaging, the relevant environmental impacts that are generally investigated are:

- Climate change (greenhouse gases emissions, including CO<sub>2</sub>),
- Water eutrophication,
- Aquatic eco-toxicity,
- Exhaustion of non-renewable natural resources,
- Non-renewable energy consumption,
- Water consumption,
- Air acidification,
- Loss of biodiversity,
- Production of non-recovered waste (ultimate waste).

**The most popular tools for carrying out strong LCAs use six criteria on average** (with a minimum of four); greenhouse effect /use of resources /ultimate waste and water impacts feature in all of them.

### 3/ LIMITS

We should not forget that calculations from LCAs very often give results with 10-15% margins of error. That means that any differences that are smaller than this margin are by definition relatively insignificant.

This should be related to the principle of proportionality, which prevents a benefit being assigned to a whole when it only concerns a small fraction of the problem.

It should be remembered that a packaging is never alone but is part of a whole system that should be analysed under a multi-criteria and comprehensive LCA.

Finally, the relative share of packaging in the product-packaging couple's various environmental impacts throughout its lifecycle (including product use) varies according to environmental indicators and product types, but is usually low (approximately 10% for food).

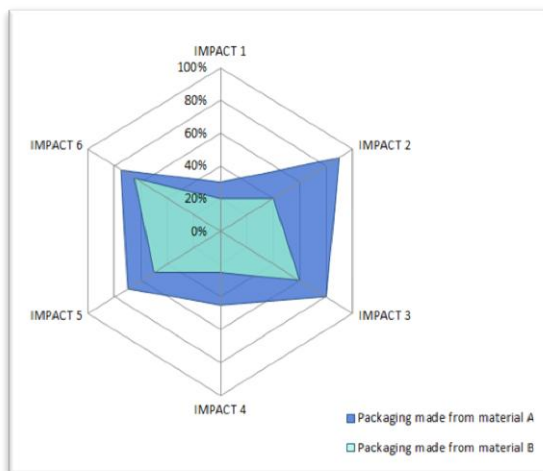
So general conclusions on the packed product should be avoided when packaging has much less of an impact than its contents.

### FRENCH PACKAGING COUNCIL'S POSITION

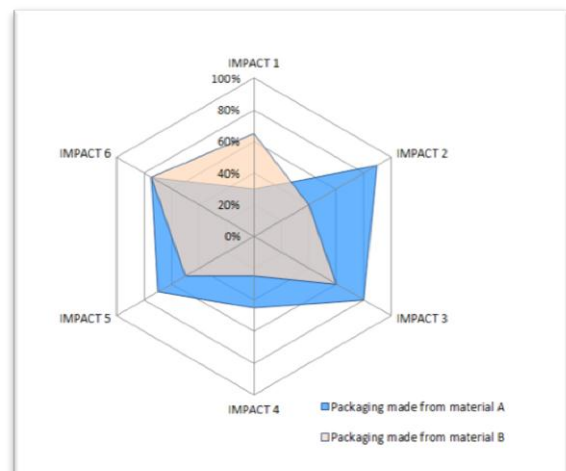
**In the event that a company wishes to compare packaging components made from different materials, CNE recommends complying with the following three key points to guarantee fair, objective and complete information:**

1. Two packaging made from different materials can only be compared if the packaging deliver the same value in use to the consumer/user (same features and usage characteristics) for the packed product.
2. The comparison can only be made from a full multi-criteria LCA that has been critically reviewed: a comparison on just one or two criteria is not representative of environmental impacts as a whole.
3. A comparison where all examined impacts do not vary significantly in the same way (beyond error margins) **does not make conclusions possible.**

See explanatory diagrams below:



Packaging made from material B has a lower impact.



**Impossible conclusion.**

Paris, September 18<sup>th</sup>, 2012