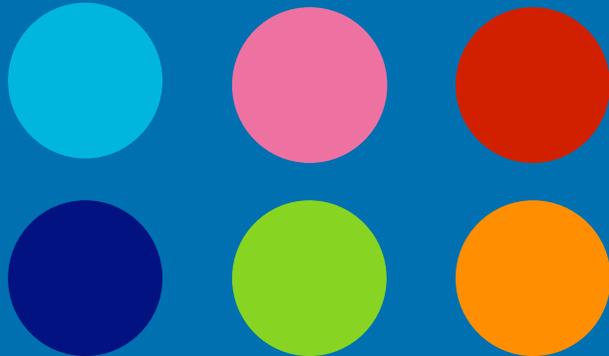




The 'carbon footprint' – a reliable indicator of environmental sustainability ?

34 th LCA Discussion Forum LCA (13.03.08)



Carbon Footprint : is it that reliable ?



- Pionniers of LCA standardization have firmly defended fundamental principles
 - Multicriteria
 - Whole system consideration (All LC phases, and e.g. pkgg+content+distribution+filling as a single system)
 - Transparency

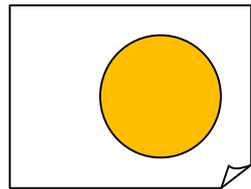
so that we can benefit of a rational tool to first analyse environmental issues, discuss assumptions, and then only, make decisions

- We must take care to not jeopardize these principles when simplifying the message at the level of the consumer

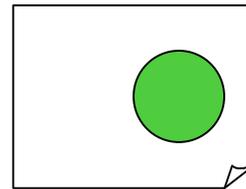
Monocriteria risks



Product 1



GHG Emission



Product 2



Monocriteria risks



Non renewable Energy Consumption ?

Ozone Depletion ?

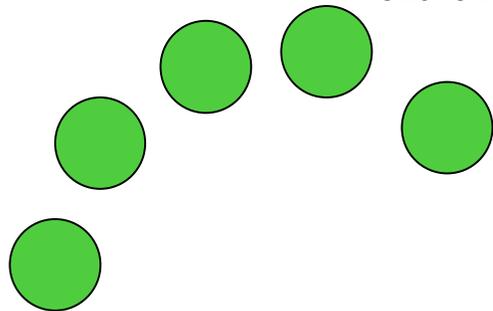
Human Toxicity ?

Water eutrophication ?

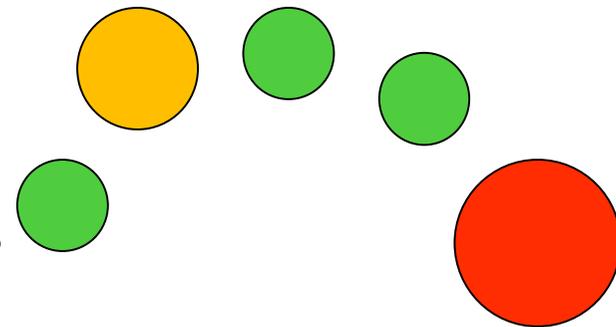
Water Consumption ?

Non Renewable Raw Material Consumption ?

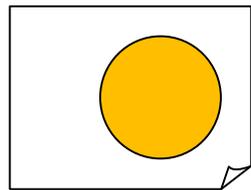
Aquatic toxicity ?



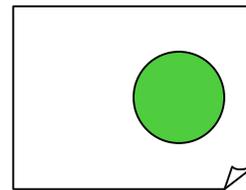
Product 1



Product 2



GHG Emission



Monocriteria risks



- **SHIFT THE ENVIRONMENTAL BURDEN**

If people are invited to compare products on the sole basis of their carbon footprint, those who want to 'do the right thing' for the environment may be led indeed to make the wrong choices.

- **AMALGAME**

Many people simplistically tend to equate carbon emissions with overall environmental impact, although there is no direct correlation between the two

Too narrow system considered



Packed food System

Food

Packaging

Example : packed fish

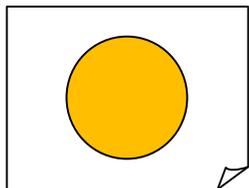
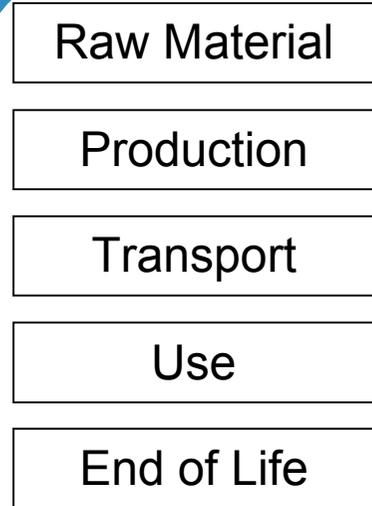
- Packaging of 30 g of LDPE has a carbon footprint around (without end of life) 25 of Ceq
- Packed fish could vary from 400 to 800 g of Ceq (Ademe source) emission per kg



If only packaging were marked with a carbon footprint there would be many risks of misleading the consumer

- the 'lower-C' « packed food system » could eventually emit more GHG
- it could lead to disregard increased content losses, poorer functionality or lower benefits possibly associated with 'lower-C' packaging

Black Box behind the Label



Carbon Footprint



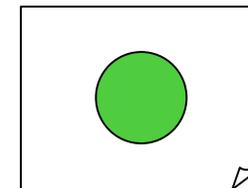
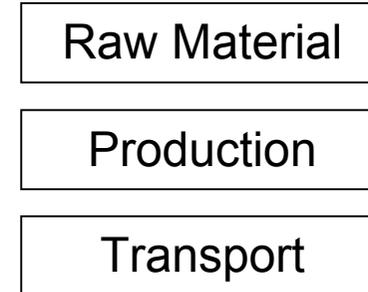
LC phases taken into account?

Scope ?

Data Selection ?

Allocation rules ?

Scenario's assumptions ?



Carbon Footprint



Difficult to compare like with like

Towards a more comprehensive approach



- PlasticsEurope agrees with the European Commission's Joint Research Centre that the carbon footprint should never be used as the sole basis for making purchasing decisions or improving goods or services.
- To strive towards sustainable production and consumption, many other aspects need to be taken into account, encompassing all environmental aspects as well as the economic and social dimensions.
- with relatively little extra effort and cost, and using much of the same data, a more complete Life Cycle Assessment method could be used, resulting in a measure of environmental impact that is fairer, more comprehensive and more transparent.

Towards a more comprehensive approach



- PlasticsEurope ecoprofiles provide comprehensive data on GHG emissions from cradle to gate
<http://www.plasticseurope.org/Content/Default.asp?PageID=1170>

- PlasticsEurope is willing to cooperate with the value chain

- A possible path from LCA/LCC to a simple labelling:
Sectorial approaches, to agree per category of product on

- rules, data and assumptions
- Selection of LC hotspots (the most significant impacts)
- Appropriate design of the declaration

- Link to PlasticsEurope Website and our position papers

<http://www.plasticseurope.org/Content/Default.asp?PageID=955>