



ENVIRONMENTAL BRIEFING

A CONTRIBUTION OF THE EUROPEAN INDUSTRY OF STEEL FOR PACKAGING TOWARDS SUSTAINABLE DEVELOPMENT

"We must preserve both the industry that is our living and the environment that supports our life" - Hubert Reeves

July 2001

"Towards the development of Objective Environmental Legislation on Packaging - Use of Life Cycle Analysis (LCA)"⁽¹⁾

APEAL is the European association of producers of steel for packaging. It is concerned that legislation on packaging currently being applied in some European Member States is unjustified, unfair and discriminatory. It has initiated several studies with the objective of providing a better perspective of the relationship between packaging and the environment. This paper gives an insight into the important work that has been undertaken.

DISCRIMINATION WITHOUT PROPER SCIENTIFIC OR LEGAL BASIS

The Danish can ban and packaging material taxes, the proposals for deposits on some one way drinks containers in Germany, and proposals for ecotaxes in Belgium mean that some packaging materials are being unfairly discriminated against in the European market. These legislative measures are based on the simplistic view that one way packaging is not as good as refillable packaging, a belief which has no legal or scientific basis. Steel is a case in point. APEAL, the European Association of Producers of Steel for Packaging, has undertaken a series of studies which demonstrate the

unfairness of the legislation, and it intends to make the findings widely known amongst legislators and the packaging industry.

The result of the Danish legislation and the proposal in Germany is effectively to limit the market opportunities for steel (along with aluminium and plastic and glass containers) as drinks packaging in these countries. In Germany, a huge European market, the draft law says that such packaging is "ecologically unfavourable" and subjects it to a one way deposit. The high costs of administering the deposit mean that many firms may switch to other materials.

(1) LCA DEFINITION: Life Cycle Assessment (LCA) is a multi-criteria evaluation tool that can be applied to both products and services to quantify their environmental burdens. The assessment is performed on the whole life cycle of the product, from cradle (extraction of resources) to grave (final fate of the product through waste management). To assist industry in the environmental evaluation and improvement of products was the first concern of LCA studies.

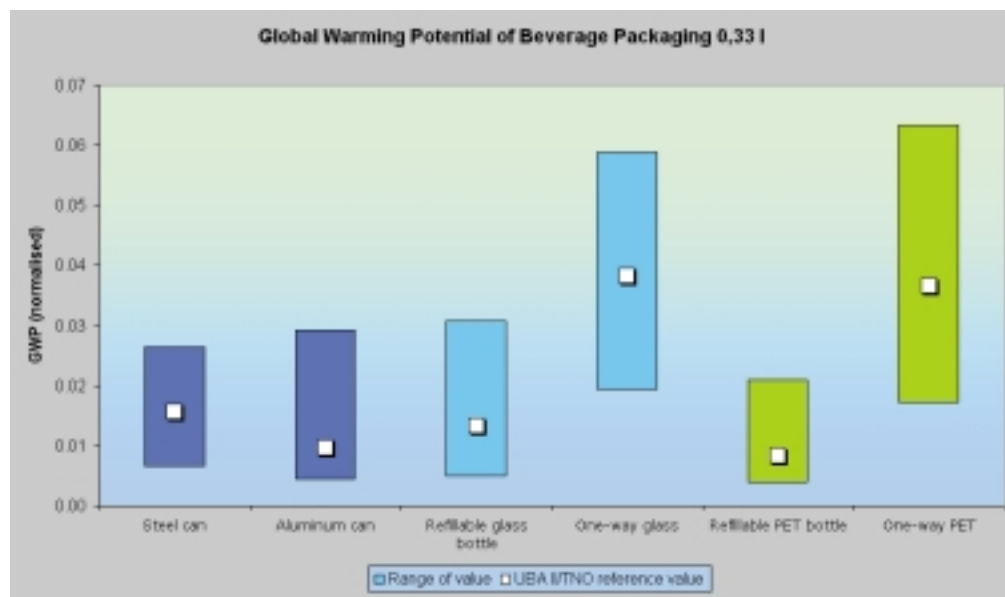


NECESSITY FOR SENSITIVITY ANALYSIS⁽²⁾

Taking the case of steel, this move would take place despite the fact that 81 per cent of steel packaging is recycled in Germany and that across Europe more than 50 per cent of steel packaging is recycled. Steel meets the essential requirements of the European packaging and packaging waste directive (Dir. 94/62) and achieves much higher global recycling rates than many other packaging materials.

The European steel industry argues that the discrimination is unjustified, particularly given the high recycling rates achieved in many European countries. The discrimination is based on a particular interpretation of life cycle assessment, yet all the LCA shows is that when transport distances are short there may be a certain environmental advantage for refillable containers but over longer transport distances there is no environmental benefit.

TNO study demonstrates no basis for discrimination exists



From TNO study: sensitivity analysis applied to the results of the German LCA UBA II / TNO reference for the global warming environmental criteria. Usually, when LCAs are carried out for legislation purposes, only one value is taken into account (see white square as UBA II value). A sensitivity analysis is essential as overlapping ranges of packaging systems indicate that these may perform equally. Complimentary to the necessary peer review, decision-makers should include the results of sensitivity analysis in the process, in accordance with the ISO14040 standard.

(2) WHAT IS A SENSITIVITY ANALYSIS ?

Sensitivity analysis enables to take account of a range of values for various LCA parameters, which is in fact the case, considering real market conditions. An example to illustrate what sensitivity means : Refillable packaging is transported over a range of distances going from 100 to 1.000 km, according to circumstances, in opposition to a unique 200 km distance consideration. When you combine all these different values together, you get a range of environmental impact values per criteria, instead of a single value. This is more representative of reality.

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“Steel is being discriminated against without any sound scientific evidence or any legal basis. Consumers should be given a proper choice of packaging materials to match different needs. High environmental goals should be met, but markets across Europe need to be kept open” said Philippe Wolper at APEAL.

“Every packaging material has its strengths and weaknesses. What we need in Europe is choice and consumer information.”

Eco-taxes based on LCA results are seen as arbitrarily targeting drinks packaging. *“Steel is environmentally friendly for a food can – so why does the legislation assume it’s not for a drinks can? This makes no sense at all.”*

NO SIGNIFICANT DIFFERENCES BETWEEN MATERIALS

Studies by the respected TNO Institute in the Netherlands show there

is no justification for discrimination against one way steel beverage cans.

Energy requirements measured through an LCA sensitivity analysis show that, once the inherent limitations of the input data are taken into account, there are no significant differences between packaging concepts

(one-way versus refillable). No differences have been demonstrated between the one-way steel can and the PET refillable or glass refillable bottle.

Similarly, in terms of global warming, the impact of different packaging materials and concepts does not differ significantly between one-way steel beverage cans and glass or PET (plastic) refillable bottles. (See TNO graph page 2)

Using LCA to differentiate between environmentally favourable and unfavourable packaging is completely fallacious

LCA: AN EXCELLENT TOOL... IF USED PROPERLY

At the end of the day, it appears that regulators have a limited grasp of the fact that packaging saves more resources (because it protects and preserves the contents) than it consumes, that packaging actually does not consume vast resources, and that the environment would be much better protected if

a more educated, balanced appraisal were made. LCA is an excellent tool when used properly. However, using them to differentiate between environmentally favourable and unfavourable packaging is completely fallacious. This is the core message from the steel industry.



APEAL

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Prognos, 2000 Oekobilanz für
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