The importance of paper and board packaging

An input to the debate on the Prevention of Waste in the context of the Directive on Packaging and Packaging Waste

The European paper and board packaging industry

Autumn 2000

The European Paper and Board Packaging Industry is coordinated through the PPCG (Paper and Board Packaging Coordination Group) a network of European paper and board packaging associations. (Secretariat : CEPI)

The participating members are:

ACE
The Alliance for Beverage Cartons & The Environment

CEPI
Confederation of European Paper Industries

CEPI Eurokraft
European Kraft Paper Producers for the Flexible Packaging Industry

CITPA
International Confederation of Paper & Board Converters in Europe

Groupement Embalpack
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Groupement Ondulé
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Kraft Institute
European Containerboard Industry Trade Association

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Association of European Cartonboard & Carton Manufacturers

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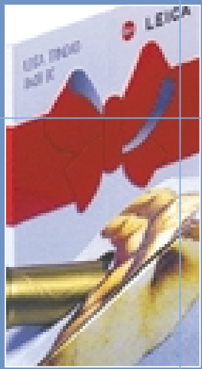
Introduction

In the context of the debate on improving the environment, the European paper and board packaging industry welcomes this opportunity to address the very important topic of Prevention of Packaging and Packaging Waste.

When preparing this document, the paper and board packaging industry has kept environmental considerations to the forefront. These include the industry's own on-going, positive record on the environment, which is demonstrated by the sustainable method of production, using renewable resources, where more trees are planted than are harvested, and a long tradition of recovery and recycling.

The paper and board packaging industry is pleased to present this document as a position paper. It is not intended to give a complete history or explanation of the concept of Prevention, but rather to give a practical account of how the paper and board sector of the packaging industry views Prevention from its own perspective.

Overall, the paper and board packaging industry considers that the debate concerning packaging and Prevention should be conducted in a wider context. The paper and board packaging industry believes that in the future an holistic approach will apply to the whole issue of resource use and waste management in which the technique of Prevention will play an important part. Emerging concepts such as Integrated Product Policy (IPP) will be instrumental in determining the impact of each element in the chain of supply of packaging and packaged goods.



" The paper and board packaging industry has kept environmental considerations to the forefront "

Executive summary

Prevention of packaging is a complex concept, necessitating a combination of quantitative and qualitative elements.

Focusing exclusively on quantitative prevention is too simplistic in a sophisticated free market.

Packaging performs an essential function by protecting goods from damage, from the point of manufacture through to the final consumer. It prevents wastage of goods and energy. Packaging meets stringent safety, technical and hygienic requirements.

The paper and board packaging industry must respond to the needs and demands of its customers (goods manufacturers, packers and fillers) when providing packaging, as well as taking account of the needs of the whole supply chain and should therefore be seen as a service industry.

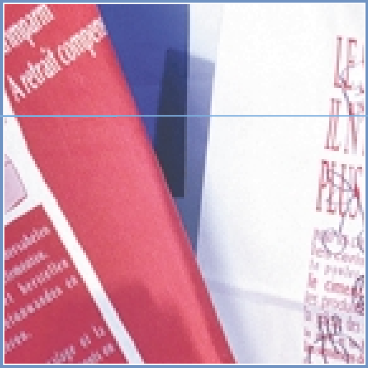
The very strong correlation between society's demand for goods and the need for the benefits of packaging, must not be compromised by a Prevention concept which is defined as measures to prevent packaging at source, for example, by means of quotas per capita. The main focus of Prevention should be on preventing packaging waste going to landfill rather than reduction at source.

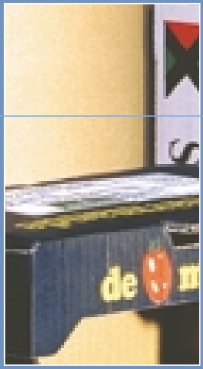
The paper and board packaging industry has to work within a framework of legal and market constraints. Any modifications in the name of Prevention must not compromise performance or the importance of these constraints.

In the context of the paper and board packaging industry, a contradiction exists in applying the two objectives of achieving higher recycling targets and Prevention. This is because, at a given packaging performance, higher recovered paper utilisation in a paper substrate is generally equal to greater weight.

Levels of re-use are not a useful yardstick to measure Prevention.

An holistic approach to waste management in an integrated waste policy is necessary. This approach would more easily be able to balance the environmental and economic elements of Prevention of packaging within a wider context, which would include minimisation, recovery and recycling and the demands of the market.





" An holistic approach to waste management in an integrated waste policy is necessary "

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What is Prevention ?
view of the paper and board packaging industry

Prevention of packaging is a complex concept, necessitating a combination of quantitative and qualitative elements.

In this context, the qualitative elements of packaging cannot easily be measured. For example, good runnability on packaging machines, and good handling and stacking characteristics (See Annex 1) can prevent waste. The qualitative aspect of “harmfulness” i.e. the aspects of Prevention relating to the presence of “noxious and other hazardous substances” are comprehensively covered in the two parts of a CEN* Report on this subject and are not further discussed here.

One aim of the Directive on Packaging and Packaging Waste is to reduce the environmental impacts of packaging throughout its life cycle, from production through to final disposal, including recycling, without compromising its essential functions.

Prevention is one method of achieving this aim but focusing exclusively on quantitative prevention is too simplistic in a sophisticated free market. In our view, Prevention should involve a reduction of the global impact of packaging on the whole life cycle of the product, while guaranteeing the same performance.

The Directive's definition of Prevention is: “prevention shall mean the reduction of the quantity and the harmfulness for the environment of: Materials and substances contained in packaging and packaging waste, at the production process level, at the marketing, distribution, utilisation and elimination stages, in particular by developing “clean” products and technology.”

While the paper and board packaging industry takes due consideration of Prevention at the “production process level”, we believe that packaging performs an essential function by protecting goods from damage, from the point of manufacture through to the final consumer.

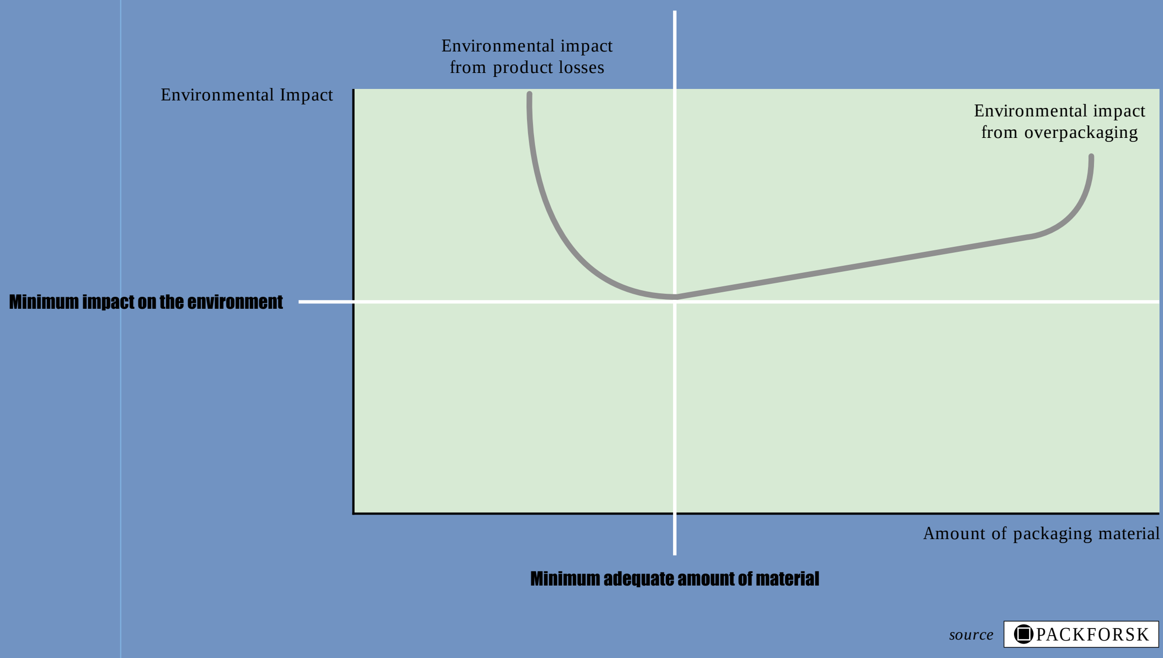
Packaging prevents wastage of goods, most notably food and safety-critical goods, and also energy consumed in producing goods. Therefore, the view of the paper and board packaging industry is that the main focus of Prevention should be on preventing packaging waste going to landfill.

" Prevention should involve a reduction of the global impact of packaging on the whole life cycle of the product, while guaranteeing the same performance "

* *European Committee for Standardisation*

The main function of packaging is to help the products fulfil their intended utility. Few people know that without efficient packaging we would have a considerably higher load on the environment from damaged and wasted products.

Balance between product losses and the necessary amount of packaging material



2 The paper and board packaging Industry a service industry

In order for goods which require packaging to reach their point of usage in perfect condition, the packaging must provide appropriate protection and functional performance .

This is fully acknowledged in the Packaging Directive. The packaging industry has the expert knowledge to design and produce this packaging and should therefore be seen as a service industry, within the overall packaging chain. (See Annex 2).

Changes in society, for example, demographic shifts, lead to changes in the way goods are produced and therefore in packaging demands. Studies have shown that 63% of total intra-EU trade in goods is in packaged goods, while within manufacturing, packaged goods account for 67% of intra-EU trade.

The very strong correlation between society's demand for goods and the need for the benefits of packaging, must not be compromised by a narrow Prevention concept. For example, the paper and board packaging industry rejects any measures to prevent packaging at source, using such methods as setting quotas per capita.[1]

The paper and board packaging industry supports the aims of the Packaging Directive to protect the environment. However, the paper and board packaging industry is a service industry which responds to the needs and demands of its customers (goods manufacturers, packers and fillers) when providing packaging, as well as taking account of the needs of the whole supply chain.

In close co-operation with producers and manufacturers in the whole supply chain, the paper and board packaging industry is working continuously on improvements to the design of paper and board packaging, taking into account both economic and ecological considerations. Design considerations include using the minimum amount of material consistent with all the performance requirements.

In this context, what is often deemed to be "over-packaging" can in fact be "over-specification", and an approach which builds waste management into all decisions concerning the use of packaging, is required to prevent waste.

The paper and board packaging industry helps its customers to optimise and to minimise packaging in order to prevent waste, by carefully evaluating the amount of packaging specified, the type of performance required and the weight of material. For example, demands for extended shelf life for products require more sophisticated, sometimes heavier, packaging. The environmental impact of this must be weighed against the impact of a shorter shelf life which could, for example, involve more frequent transportation of goods.

" In close co-operation with producers and manufacturers in the whole supply chain, the paper and board packaging industry is working continuously on improvements to the design of paper and board packaging, taking into account both economic and ecological considerations "

[1] *i.e. by setting an artificial limit on the consumption of packaging so that only X kilos of packaging per capita per annum is allowed to enter the market.*

Applying the principles

Prevention in the paper and board packaging industry

In common with other packaging sectors, the paper and board packaging industry has to work within a framework of constraints, including:

- **legislation (food safety, transport, etc.)**
- **consumer demands (easy to handle, easy opening, etc.)**
- **customer demands (cost reductions, good shelf appeal, optimum use of space, etc.)**
- **cost / benefit analysis**

In the context of Prevention of packaging, any modifications made must not endanger performance and aspects such as those listed above should be of primary importance.

One of the principal aims of the Packaging Directive is to set up ambitious levels of recovery and recycling. Alongside this is the goal of Prevention of packaging. In the context of the paper and board packaging industry, a contradiction exists in applying these two objectives.

The majority of paper and board packaging is easy to recycle and as an overall percentage, contains more recycled material than any other packaging material. The paper and board packaging industry has, over very many years, made enormous efforts to recycle paper and board and therefore reduce to the minimum, the quantity of paper and board that goes to landfill. Besides this, the paper and board packaging industry, working together with other industries in the packaging chain, is continually seeking opportunities to minimise the use of materials, due to the constraints of the market, competition and cost.

However, at a given packaging performance, more recovered paper utilisation in a paper substrate is generally equal to higher weight. This is particularly true if higher targets require higher levels of collection of paper and board from the domestic waste stream. The resulting lower quality of recovered paper mix has a direct impact on the weight of paper and board packaging required to achieve the desired performance.

Additionally, as more paper and board is recovered from the domestic waste stream, the processing of this recovered paper leads to an increase in the by-products that may not be usable. If these materials, such as metal, plastics and sludge, cannot be recovered then they create the problem of industrial waste which must be landfilled or possibly incinerated.

The promotion of re-use is often also seen as a method of Prevention. The paper and board packaging industry acknowledges that re-use can be an important tool in resource conservation, but is of the opinion that the benefits of re-use can only be judged on a case-by-case basis. Re-use of packaging involves many factors which impact on the environment and therefore, levels of re-use are not a useful yardstick to measure Prevention.

In the view of the paper and board packaging industry, the contradictions in the Directive, described above, would be resolved by an holistic approach to waste management in an integrated waste policy. This approach would more easily be able to balance the environmental and economic elements of Prevention of packaging within a wider context.

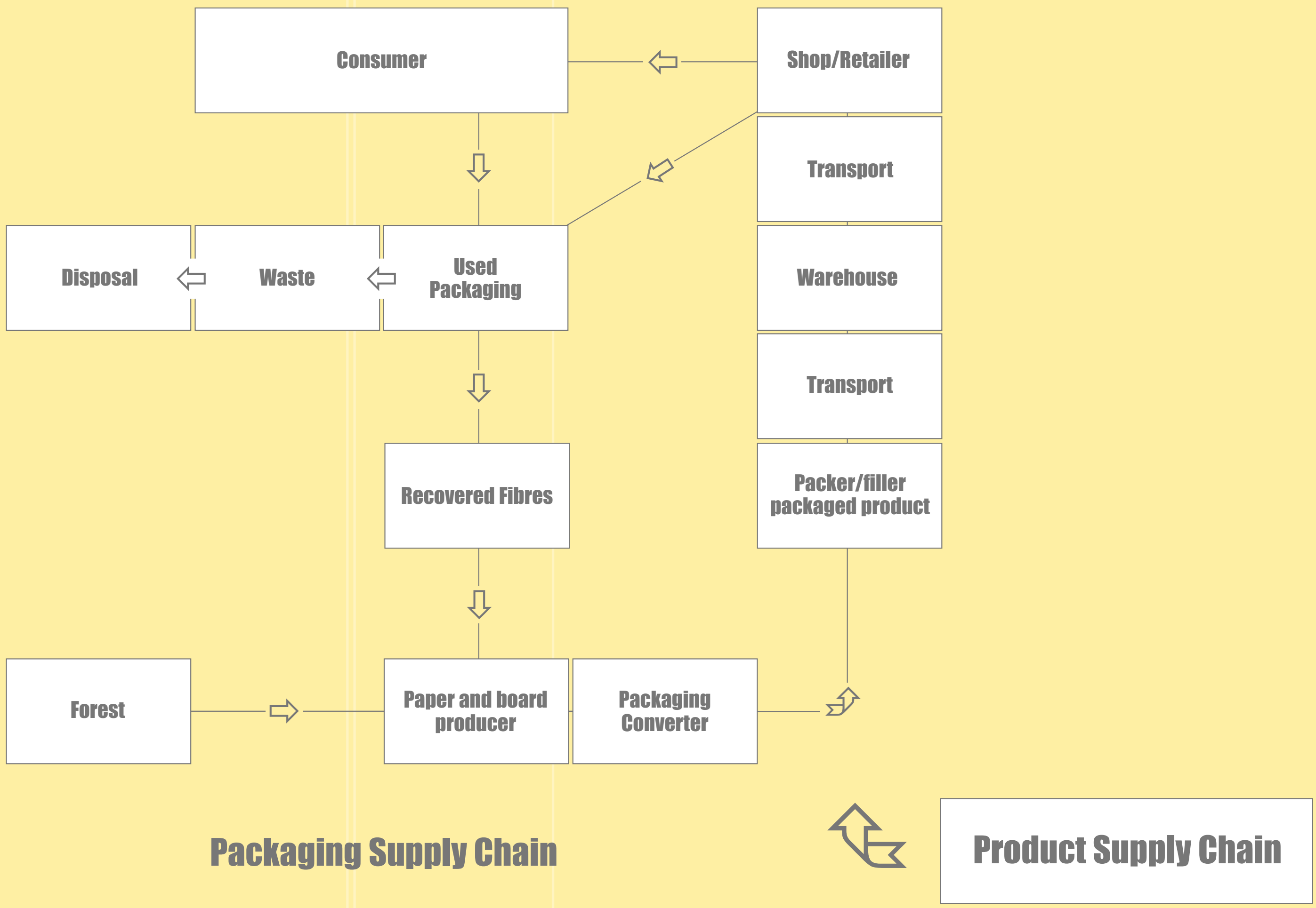
Annex 1

Matrix for paper and board packaging performance

Illustrating the critical points of performance for paper and board packaging, which should not be undermined by a theoretical concept of prevention, meaning only reduction at source.

	Quantitative	Qualitative
Material supplier	Cost Volume/weight Strength	Quality of raw material Quality of finish
Packaging manufacturer	Cost Volume/weight Size of design	Quality of finish Runability on machinery Printability
Transport	Weight/Volume Truckfill/modularity Use of energy	Fit on Pallet Protection
Product manufacturer	Modularity Size of design Strength Cost Mechanisation (erecting, filling etc.)	Hygiene Protection (e.g. barrier properties) Compatibility with filling lines Storage Market Trend
Logistic service providers	Space Weight Modular/non modular	Strength Handling facility Protection (e.g. shelf life) Stacking Issues
Distribution centres/ Wholesalers	Modularity Space Weight/volume	Protection Handling Strength of packaging
Retail Shops	Space/Size of unit Weight Modular/non modular Strength	Ease of opening Ease of disposal Shelf appeal Hygiene Stacking issues Protection Collapsing after use
Consumer	Size of unit	Protection Hygiene Perfect goods delivery Ease of opening Ease of disposal
Paper and Board collector	Cost Volume	Quality Easy access

Annex 2
The paper and board packaging supply chain



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