

What is prevention?

Prevention is optimizing packaging in order to minimize the total environmental impact of a product and its packaging. This difficult exercise requires that multiple criteria and parameters be taken into account. It applies to the entire product chain, from design to waste disposal.



Quantitative and qualitative prevention

In terms of packaging, there are two types of prevention:

QUANTITATIVE PREVENTION

aims to reduce the amount of materials used. The weight and volume of packaging must minimize the quantity of waste generated by the product/packaging combination while ensuring that the packaging fulfils its roles. This means minimizing the amount of packaging without increasing the risk of damage to the product, thus ensuring safety, hygiene, and customer acceptance.

QUALITATIVE PREVENTION

refers to the complete design of the packaging. Using recycled and/or recyclable materials, designing a format that optimizes transport while reducing production waste, extending the preservation of the packaged food, lowering CO₂ emissions, etc. Another aspect is avoiding materials that are, for instance, potentially harmful to the product and the environment, or favouring materials that make recycling easier.

Packaging that is too light **must often be avoided**

For each product/packaging combination, there is a point where the packaging is neither too heavy nor too light. This optimal point provides sufficient protection to the product while minimizing the environmental impact of the product/packaging combination. This impact is actually much greater when the packaging becomes too light – which entails a greater risk of content loss – than when the packaging is

too heavy. Indeed, the ecological impact entailed by the 'manufacturing' of a product in the broadest sense (cultivation, harvesting, assembly, etc.) is generally greater than that of just its packaging. Therefore, any loss of product has far greater consequences for the environment than the waste disposal of the packaging that is necessary to ensure its protection.

good to remember

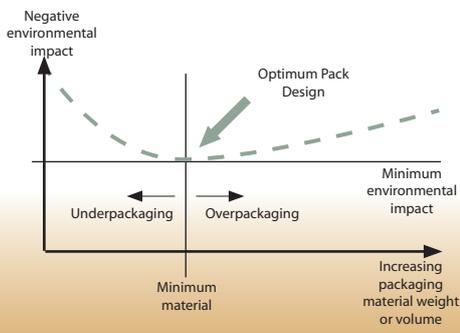
Efficient prevention minimizes the total environmental impact of a **product/packaging combination**.

Prevention concerns the entire product chain, **from design to final processing**. This includes optimizing the interaction between the primary, secondary, and tertiary packaging.

Prevention aims to optimize both the **quantity** (weight and volume) and the **quality** (materials used, optimized logistics, etc.) of packaging in relation to the packaged products.

Prevention is a process requiring continuous improvement. It must **incorporate the latest technology and knowledge**.

What is prevention?



Where does **prevention start**? And where does it **end**?

The prevention of packaging concerns the entire product chain, from design to waste. All stages of the lifecycle of a product/packaging combination must therefore be taken into account when designing packaging: production, transport, usage, and final processing. This prevention also covers the adequacy of primary, secondary, and tertiary packaging in relation to one another. During the production stage, for instance, it is important to minimize production waste resulting from the making of the packaging. Similarly, during the transport stage, the design of the packaging must enable the loading of as many products as possible onto a single pallet.

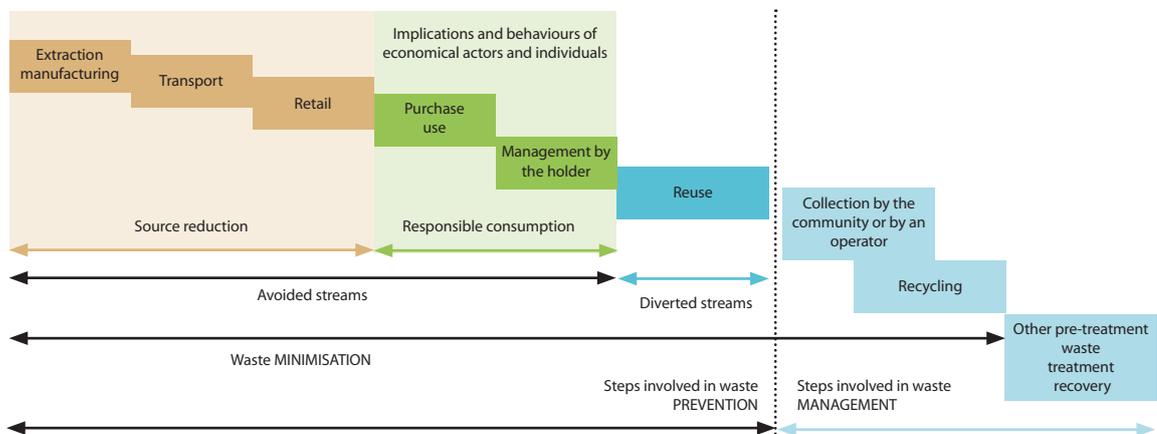
A diagram on the ADEME website indicates where to best implement the various prevention initiatives, always taking into account the fact that the waste from the **product/packaging combination** has to be reduced, and not just the waste from the packaging alone.

The model developed by the Packforsk Foundation clearly shows that for every product/packaging combination, a lack of packaging compared to the optimum entails more negative effects than excess packaging.

PACKAGING - a tool for the prevention of environmental impact, report nr. 194, June 2000

http://www.stfi.se/upload/Gamla_PF-sidor/REPORT_194.PDF

Prevention covers each stage in the lifecycle of a product packaging combination.



A process of **continuous** improvement

Prevention is a process of continuous improvement. The packaging often changes during the lifetime of a product. Every change is also an opportunity to assess further potential for prevention, taking into account acquired experience, new materials that are available, and new technologies. Such an assessment should cover the production, consumption, and

recycling stages. Five European standards provide support in this process. They list all key requirements related to packaging and packaging prevention.

Most topics presented in this sheet will be discussed in further detail in our forthcoming editions.

For additional information: European Commission report to the European Council and Parliament regarding the implementation of the 94/62/EC Directive on packaging and packaging waste.

Key requirements in terms of packaging and packaging prevention in European Directives: NBN EN13427, NBN EN13428, NBN EN13429, NBN EN13430, and NBN EN13432.

Essential requirements for packaging in Europe, a guide published by Euopen (the European Organization for Packaging and the Environment).