



Practical guide to the eco-design of packaged products

THE OBJECTIVES

The terms "eco-design", "eco-designed" are sometimes overused and eventually end up having flexible definitions. It then becomes difficult to convey a clear prevention message to:

- ◆ Companies : **how to do it ?** (regardless of whether they be packaging manufacturers, packers or distributors)
- ◆ Consumers : **what is** an "eco-designed" product and/or packaging ?

The mission of the French Packaging Council (CNE), which brings together the stakeholders of the packaging chain, is to develop and disseminate the best practices in designing, using and marketing product packaging. In 2000, then in 2011, the CNE produced a practical guide for companies to facilitate the eco-design of packaging and (to) reduce its impact on the environment throughout its life cycle. The following document is the synthesis of the complete guide which is available on www.conseil-emballage.com.



THE CHALLENGES OF ECO-DESIGN

Taking action to reduce the environmental footprint of consumer products.

Inquiring into the design, manufacturing, distribution and utilization of pre-existing products, in order to reduce their impact on the environment.

Identifying and controlling the costs and risks inherent to the full product life cycle.

Optimizing/reducing the transportation, material and packaging costs.

Pre-empting and anticipating the weak signals sent by stakeholders (contractors, environmental protection organizations, consumers' associations, public authorities, etc.).

Anticipating any regulatory developments.

Using the environment as a lever for internal management in the companies' innovation and creativity processes.

Giving meaning by promoting a positive value of the company's image as long as its approach is sound and genuine.

Making it a real source of differentiation in a competitive environment, and by doing so, recruiting new clients and penetrating new markets.

Decision-support tools





OPTIMIZING PACKAGING WHILE PRESERVING ITS CORE

Although the eco-design approach is a key element in the development of packaging, it should not be detrimental to the packaging's functions :

- ◆ Containing and preserving the contents
- ◆ Protecting the product
- ◆ Stocking and transporting
- ◆ Regrouping
- ◆ Facilitating the packing operations

- ◆ Enabling product traceability
- ◆ Being noticeable and promoting the values of the brand or the company
- ◆ Informing consumers
- ◆ Making the use of the product easier

REGULATIONS AND STANDARDS RELATING TO THE ECO-DESIGN OF PACKAGING

THE REGULATIONS

The European Directive 94/62/EC, as amended by Directive 2004/12/EC, on packaging and packaging waste, defines the prevention of packaging waste as "the reduction of the quantity and of the harmfulness for the environment".

The Environmental Code of France also specifies that manufacturers, importers and exporters are required to prove that the waste created, at any stage, by the products they manufacture, import or export are such that they can be managed under the conditions set out in Article L. 541-2.

The principle of Extended Producer Responsibility is referred to at the European level since Directive 75/442/EEC of 1975 and mentioned again in Directive 2008/98/EC.

The Planning Act 2009-967 of 3 August 2009 on the implementation of the first action plan laid down at the **Grenelle Environment** Round Table makes waste **prevention** a priority.

The Grenelle Acts represent the French national commitment to the environment.

THE STANDARDS

ISO/TR 14062 : 2002 is an international document which constitutes a standard entitled "*Environmental management -- Integrating environmental aspects into product design and development*". It describes concepts and current practices relating to the integration of environmental aspects into product or service design and development.

The presumption of conformity of the packaging with the essential requirements of the European Directive 94/62/EC can be established through a series of standards.

Standard **NF EN 13427** relating to the functionality of the packaging system specifies in particular how to use the standards to prepare technical documentation.

The prevention by waste reduction at source is developed by the standard **NF EN 13428**.



DEFINITION OF ECO-DESIGN

Eco-design¹ is a corporate approach aiming at improving the ecological quality of a product - the reduction of its adverse impacts on the environment throughout its life cycle (extraction of raw materials, production, distribution, use, and end of life) - while maintaining its quality in use (same performance and/or efficiency).

THE KEY ELEMENTS OF ECO-DESIGN

All the under mentioned questions are included in the full document, available on www.conseil-emballage.org.

1/ INVOLVE FROM THE ONSET ALL THE INTERNAL AND EXTERNAL STAKEHOLDERS CONCERNED BY THE PRODUCT (QUESTIONS NO. 1, 2, 3, 4)

- ◆ Designers
- ◆ Packaging manufacturers
- ◆ Supply-chain
- ◆ Procurement/Development/Research & Development/Marketing, etc.

2/ INTEGRATE THE USE OF ECO-DESIGN PRODUCTS THROUGH CONSUMERS (QUESTIONS NO. 5, 6, 7, 8)

- ◆ Refund rate
- ◆ Single-dose/multi-doses/etc.
- ◆ Opening and closing mechanisms
- ◆ Legible and noticeable information

3/ REFLECT ON THE WHOLE PACKAGING SYSTEM TO AVOID ANY TRANSFER OF IMPACT (QUESTION N°9)

- ◆ Packing of any purchased material composing the packaged product
- ◆ Primary/secondary/tertiary packaging of the product

4/ OPTIMIZE THE PACKAGING WEIGHT AND/OR VOLUME FOR A SPECIFIED USE OF THE PRODUCT (QUESTIONS NO. 10, 11, 12, 13, 14)

- ◆ Integrate all the delivery and distribution parameters of the product throughout its life cycle, including palletizing.
- ◆ Integrate prevention at source of the environmental impacts by :
 1. Reducing the number of non-recyclable materials,
 2. Optimizing the weight and/or volume of the elements/materials used during the packaging process.
- ◆ Limit the packing of product components, packaging materials and empty packages.

5/ OPTIMIZE THE USE OF NATURAL RESOURCES DURING THE MANUFACTURING OF PACKAGING (QUESTIONS NO. 15, 16, 17, 18, 19, 20)

- ◆ Optimize the manufacturing of packaging : adequacy between the processing capacity and the size or type of material, printing format, manufacturing waste, etc.
- ◆ Use, whenever technically and financially feasible, recycled raw materials.

6/ TAKE INTO ACCOUNT THE PACKAGING'S END-OF-LIFE (QUESTIONS NO. 21, 22, 23, 24, 25)

- ◆ Facilitate the disassembly of the components/elements of used packaging made up of different materials in preparation for future sorting and recovery.
- ◆ Ensure that the used packaging is recyclable and actually recycled.

THE 4 BASIC RULES OF ECO-DESIGN

- ◆ **Comply** with the different regulations, **especially the essential requirements** (European Directive 94/62/EC).
- ◆ **Make sure** not to alter the useable value of the product.
- ◆ **Consider** an approach based on the analysis of the packaged product's life cycle.
- ◆ **Take into account** the whole packaging system (upstream, primary, secondary, and tertiary packaging).

THE CHARACTERISTICS OF A RELEVANT TOOL

A relevant tool takes into account the aforementioned 6 key elements and 4 basic rules.

⁽¹⁾ source ADEME



THE MISSIONS OF THE FRENCH PACKAGING COUNCIL

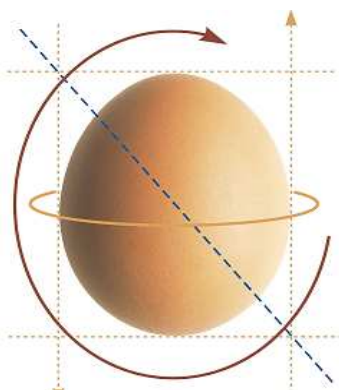
- ◆ Developing and disseminating good practices in designing, using and marketing consumer products packaging,
- ◆ Acting as a spearhead in the development of a responsible policy on the eco-design of consumer products,
- ◆ Extending prevention through reduction at source,
- ◆ Formulating opinions, recommendations and advice to the public authorities on the packaging of consumer products,
- ◆ Organizing consultations between partners.

THE CNE'S EIGHT COLLEGES

- ◆ Packaging material manufacturers
- ◆ Packaging manufacturers
- ◆ Companies in the consumer goods sector and their suppliers
- ◆ Retail companies
- ◆ Companies recognized by Public Authorities to organize the collection and recovery of packaging waste on the national level and operators in this sector
- ◆ Consumer associations
- ◆ Environmental protection organizations
- ◆ Local authorities

THE CNE'S PUBLICATIONS

- ◆ Eco-design and Packaging : A Methodological Guide,
- ◆ Position paper : Environmental Claims On Packaging of Products,
- ◆ Waste and Loss Prevention of Consumer Products : The Key Role of Packaging,
- ◆ Packaging and Health, Hygiene and Safety,
- ◆ Prevention Through Concrete Actions : Moving Towards New Approaches,
- ◆ Key Prevention Indicators.



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