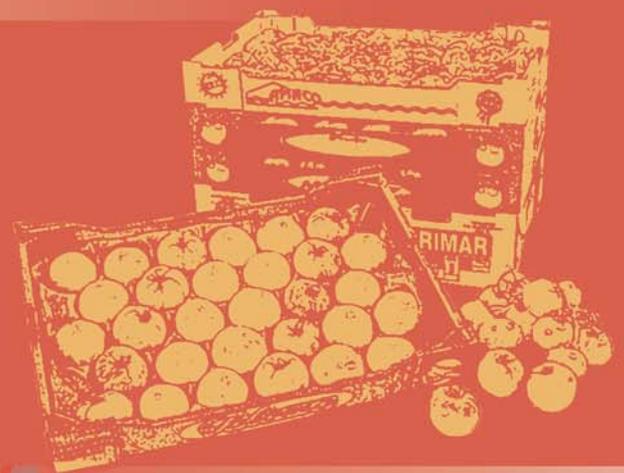


RECYCLING vs. REUSE



ENVIRONMENTAL BENEFITS OF RE-CYCLING VERSUS RE-USE CORRUGATED BOARD PACKAGING AS ILLUSTRATION

FEFCO

European Federation of Corrugated Board Manufacturers



Recycling and reuse of packaging materials should have equal status in European legislation.

The environmental performance of different types of packaging can only be determined on a case by case basis. In such an evaluation, all aspects of the packaging and the required functions of that packaging should be weighed.

The waste hierarchy, that is currently the cornerstone of EU environmental policy, leads to serious inconsistencies in the determination of the environmental impact.

The above opinion is the leading theme of FEFCO – the European Federation of the Corrugated Board Manufacturers – and the Paper Packaging Co-ordination Group (PPCG).

For many applications **recyclable packaging reduces environmental impact more effectively than reuse**, notably when packaged goods are transported over long distances. The packaging does not need to be sent back empty to the filler for reuse, so it requires less transport, reducing greenhouse CO₂ emissions; no cleaning is required, saving water and detergents use and reducing effluents.

Efficient recycling systems for packaging guarantee the reduction of used packaging sent to landfill. This is because these systems can be seen as “**closed loops**” in which used packaging is collected, recycled and used again for the manufacturing of new packaging. **Recycling is essential for the corrugated packaging industry, as recycled paper and board is the principal raw material source (up to 80%) of a corrugated board box.** Without utilising the opportunities of recycling the corrugated board industry would be only a fraction of its present size and economic importance.

Why does Corrugated/Recyclable packaging have a low environmental impact?

- **1. In manufacturing: it optimises the use of resources.** Recycled packaging is the first raw material source in the manufacturing of corrugated packaging, reducing natural raw material consumption. (Paper industry has over the years continuously reduced the environmental impact per tonne of paper produced).
- **2. In distribution: it reduces polluting emissions from transport.** The number of lorries on the road is dramatically reduced by using corrugated packaging compared to reusable packaging. Fewer lorries on the road result in less CO₂ emissions, less fuel consumption, less noise pollution and less congestion on the roads. Corrugated packaging (both empty and filled) **optimises space use for transport and storage and facili-**

tates handling. Less storage space is needed at all points of the logistic chain. Corrugated board boxes are designed to ease the handling and protect the shipped goods, which results in reduced costs.

- **3. In use: it presents no risks to human health or the environment.** Corrugated packaging avoids product wastage and contamination. It is 100% biodegradable and recyclable and contains no significant levels of dangerous chemicals.
- **4. On disposal: it minimises landfill.** Recycling of used corrugated packaging is continuously increasing. This minimises the amount of packaging being disposed of in landfills or burnt in incinerators.

The assumption that reuse is always beneficial to the environment, is not justified.

The promotion of reuse in the **Directive 94/62/EC on Packaging and Packaging Waste** is consequence of a narrow approach to environmental legislation based on a so-called ‘hierarchy’ of waste management options: prevention is the first priority, followed by reuse, recycling, recovery and sound disposal.

Although this hierarchy seems at first glance logical, new insights into the consequences have shown that the hierarchy in many cases is counterproductive and should be abandoned in favour of a more integrated policy on the efficient use of resources and sustainability.

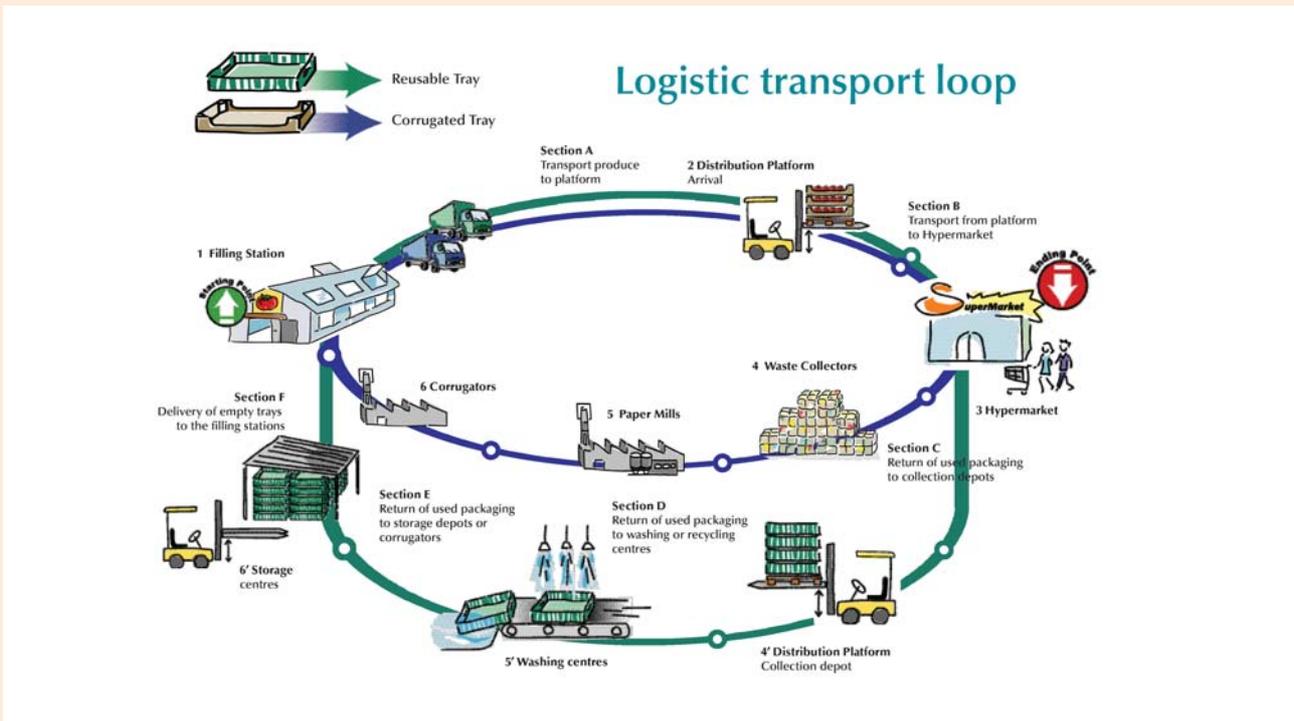
Re-cycling in a closed loop, such as the paper cycle, can be seen as re-use of the basic material involving different processes. Comparisons between the re-use of the packaging per se and the re-use of the material from what the packaging has been made (recycling) has to be evaluated in terms of the environmental and societal (benefits for the consumer and producer) impact.

Without such a complete analysis it is not acceptable to claim that reuse of packaging is better for the environment and the economy than recycling.



The industry subscribes to the idea that in each situation the best packaging solution should be the one of preference.

The perception that reuse as a rule is superior to recycling has clearly been proven to be unfounded. Case per case comparison covering the whole impact along the supply chain is therefore required.



EU BACKGROUND

Today, many environment experts and EU policy-makers acknowledge the need to review the waste hierarchy. The **European Parliament's Environment Committee** agrees that the hierarchy "may not reflect the best environmental option in all situations in view of the nature and scale of the transport operations it requires". Furthermore, the **European Commission** has recently supported the principles that reuse and recycling systems of packaging should be equally encouraged. **Article 8 of Regulation 609/2001** refers to "recyclable and/or reusable packaging" as environmental measures as part of operational programs eligible for EU financial assistance, and **article 8.2 (Annex I, point 2 (c)) of new Regulation 1433/2003 of 11 August 2003** sets up implicitly that no discrimination can be established within the different types of packaging.

Equal status should be agreed to reuse and recycling in order to be consistent with EU legislation, more specifically:

- to be coherent with the approach taken by the **EU Commission**
- to ensure the objective of the Commission's **6th Environmental Action Programme** stating that "waste which cannot be prevented should be recovered as far as possible, with preference being given to recycling", and
- to be able to achieve challenging recycling targets of **Directive 2004/12/EC amending Directive 94/62/EC on Packaging and Packaging Waste**



The Corrugated Board Industry supports legislation that safeguards the environment but contends that promoting reuse over recycling cannot be environmentally justified. The European Institutions are called to ensure an equal treatment of reusable and recyclable packaging.

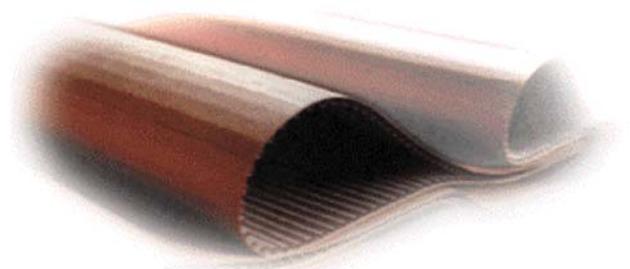
- All over the world, corrugated packaging has proven to be an **indispensable product to protect and transport perishable, breakable or otherwise valuable goods**. There are no better existing alternatives to corrugated packaging in many applications. The performance of packaging is to a large extent its logistic performance, logistic efficiency translates in to energy use and at the end of the day money, and the fact that 60% of transport packaging is made from corrugated board is a good indicator of its economic and environmental performance.
- **The corrugated packaging industry has achieved the recovery and recycling objectives** set by the 1994 Packaging Directive. It has made a significant contribution to the overall efforts to reduce the amount of used packaging disposed of in landfills in Europe and to achieving the present level of material recycling in the EU. (The main issue for the paper industry today is not to take care of a surplus of recovered paper but rather to find enough suitable raw material for paper making).
- **Recycled packaging is the most important raw material source** for new corrugated board boxes. The use of corrugated packaging contributes to the optimised use of natural resources. Recycling is, therefore, essential for the corrugated packaging industry.
- In order to achieve the recycling targets under the Packaging Directive in an optimal way, the **Member States should continue to freely choose their systems for financing return, collection and recovery systems**.
- The corrugated packaging industry **supports the Packaging Directive's objective of prevention but opposes the setting up of legally binding targets**. The corrugated packaging industry has made significant advances on prevention by:
 - Reduction of weight per square metre at equal performance
 - Design efficiency (less material for identical purpose)
 - Using less energy and water consuming processes.

There is a continuous pressure to use less material in packaging. Nevertheless, reducing the packaging beyond a certain point will increase product loss, which in most cases quickly cancels out any environmental benefit gained by the reduction of the packaging.

- **Used corrugated packaging is valuable secondary raw material and should not be considered as a waste**. European legislation does not recognise this, which puts the material in an unfavourable position since paper mills is at risk of being considered as waste handling facilities by the authorities. Cross border trade of raw materials might as a consequence be impeded by legislation for waste handling. Furthermore, the profile of the industry would be positively influenced by being perceived as a **'recycler' of a valuable raw material** rather than a converter of 'waste'.
- The corrugated board packaging industry is **committed to constantly reducing the total environmental impact of the packaging**. The environmental performance of the paper industry has been vastly improved over the years and this also means that the environmental impact of the recycling as such is continuously being reduced.

The industry is continuously engaged in finding new ways to reduce material usage, paperweights and energy consumption. The main purpose of packaging is **product protection**. One should be alert not to push packaging reduction so far that the product gets damaged.

The environmental impact of damaged products after all, is a manifold of that of packaging material. Reducing the packaging beyond a certain point will increase product loss, which in most case quickly cancels out any environmental benefit gained by the reduction of the packaging.



RECYCLABLE PACKAGING - Environmentally sound



Corrugated has one of the best recovery and recycling records of any packaging material on earth and it is one of the few packaging materials that reaches the targets set by the European Directive on Packaging and Packaging Waste.

It is made from natural and renewable resources and after use, as it is **100% recyclable**, it becomes new paper again for the benefit of the environment.

Compared to reusable systems, corrugated packaging dramatically diminishes the number of lorries on the road, **reducing polluting emissions from transport**. It also offers exceptional stacking and space utilisation, which guarantees optimum loading of trucks meaning far less vehicles on the road. Corrugated packaging solutions furthermore offer efficient and user-friendly solutions for bringing the products to the shelves in the stores.

It seems that despite any valid evidence, reusables are perceived to be more environmentally friendly, because of their repeated use.

This is one of the main misperceptions recyclable packaging will have to work to change.

In the case of **corrugated** packaging, it does not require any washing, cleaning or drying which unnecessarily increase costs and add to the environmental impact. It offers a **clean and hygienic** new container each time, therefore limiting the contamination problems sometimes associated with reuse of packaging for short shelf-life foods.





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