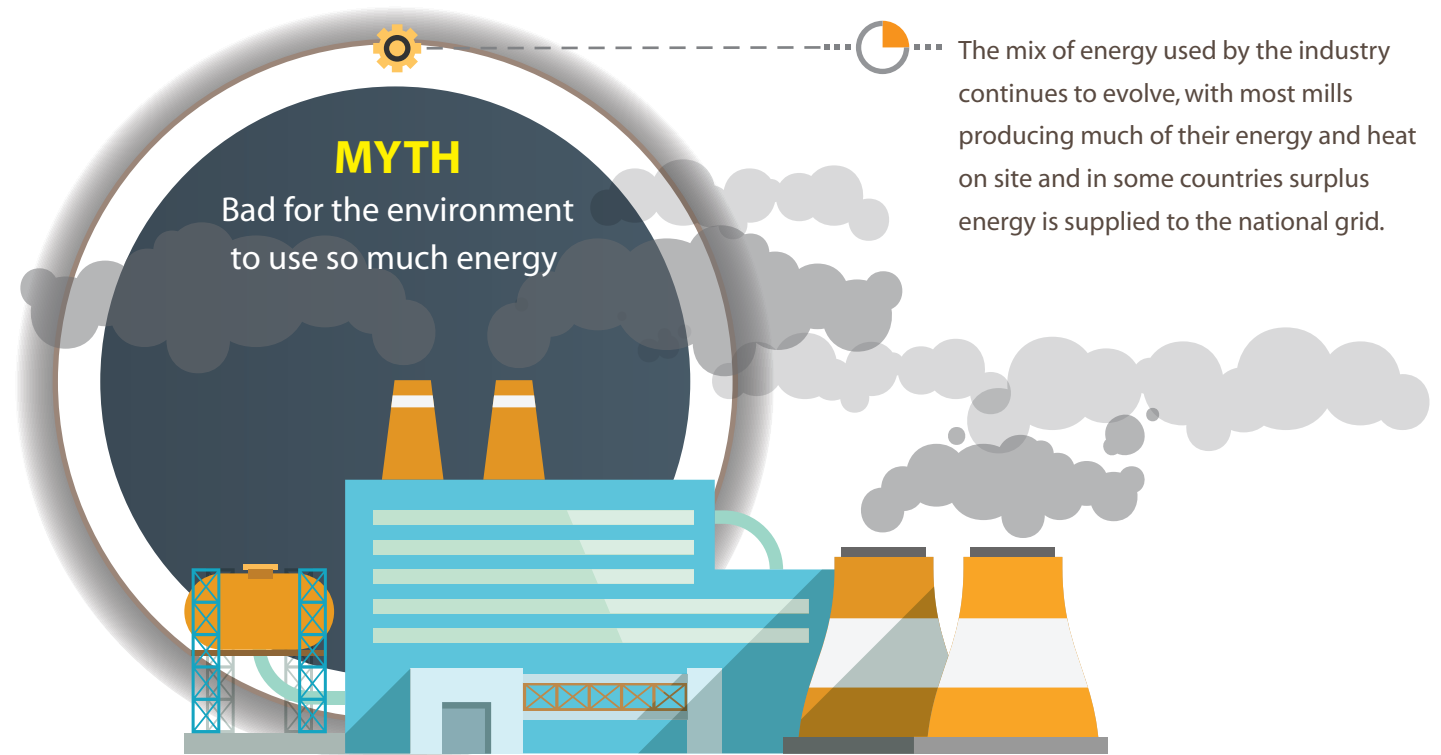


# Carton Making's Use of Energy

## MYTH

Bad for the environment  
to use so much energy

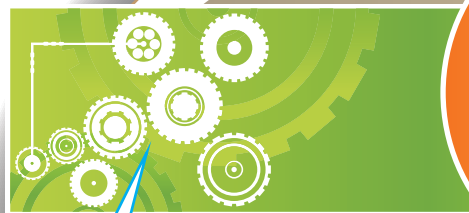
The mix of energy used by the industry continues to evolve, with most mills producing much of their energy and heat on site and in some countries surplus energy is supplied to the national grid.



95.5% of electricity is produced on-site in paper and board mills using the energy-efficient combined heat and power method. The installation of biomass-based boilers, which use waste materials from the pulping process, has increased the industry's use of bioenergy to 52.5%, making the paper and board industry the largest producer of bioenergy in Europe.

## FACT

The paper and board industry needs energy to manufacture its products but is continuously focused on reducing consumption of fossil-based energy, as this makes economic as well as environmental sense



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# Carton Making's Use of Water

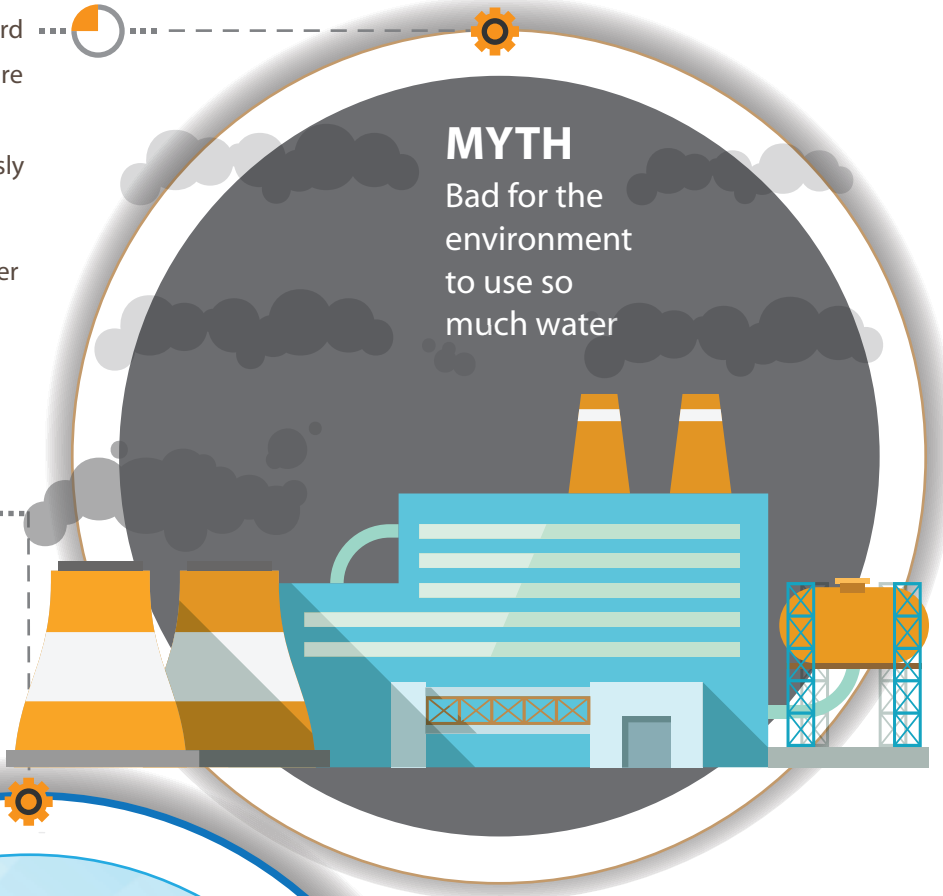
Water is fundamental to paper and board making. Management of water issues are local, taking place at the mills, and the cartonboard industry works continuously to reduce its water usage.

The industry uses large volumes of water but only a small part of this water is "consumed".

Due to the use of efficient waste water treatment, the water leaving the mill is cleaner than when it went in.

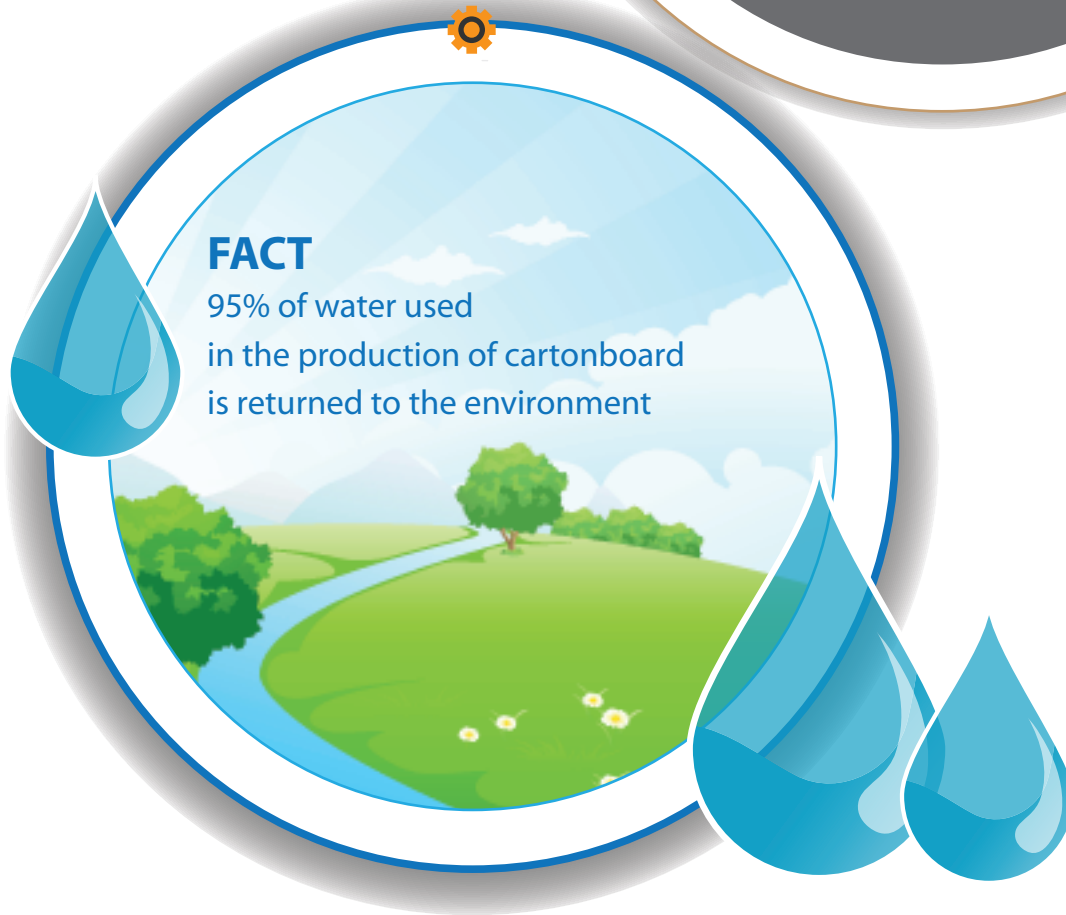
## MYTH

Bad for the environment to use so much water



## FACT

95% of water used in the production of cartonboard is returned to the environment



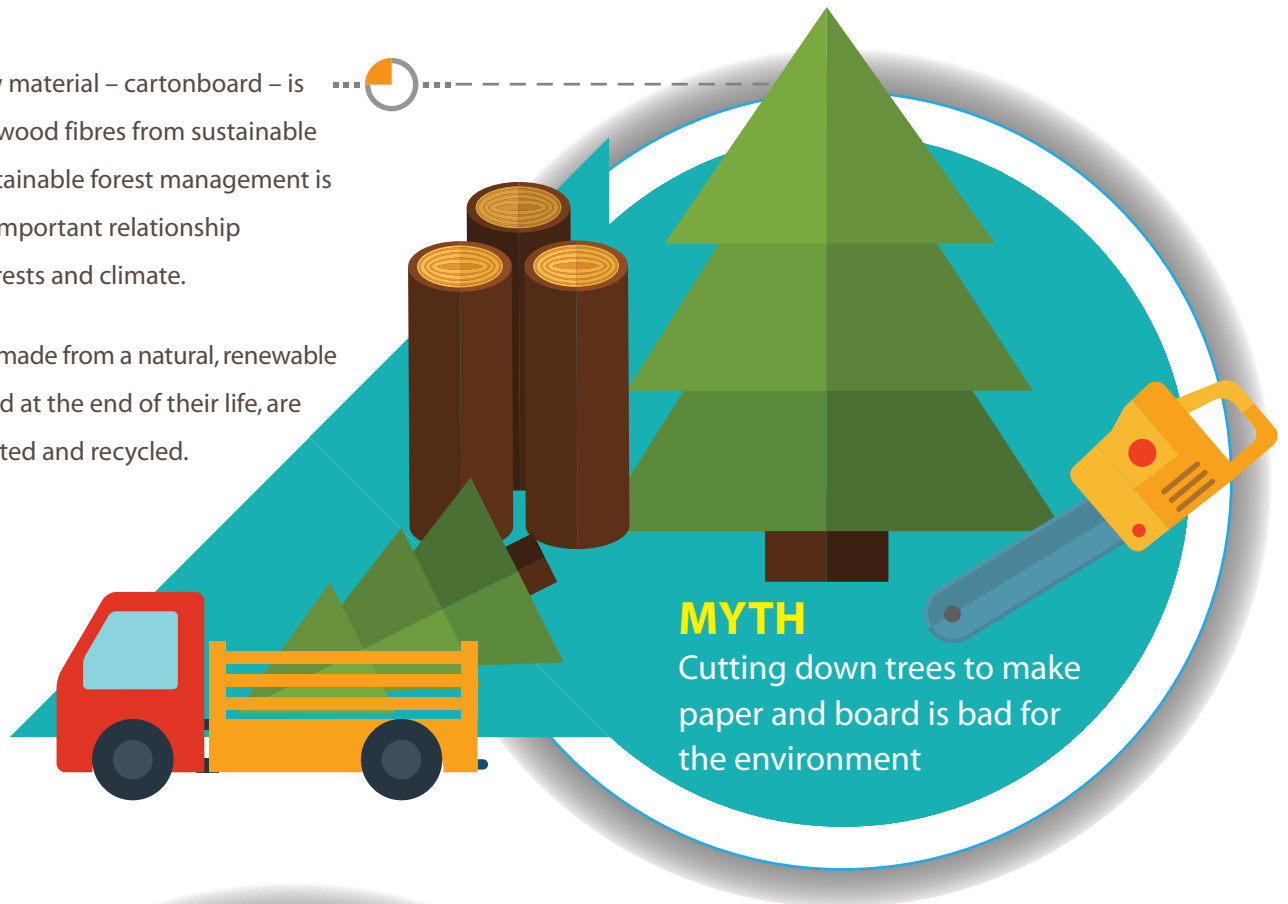
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# Carton Making's Use of Wood

Cartons' raw material – cartonboard – is made from wood fibres from sustainable forests. Sustainable forest management is part of the important relationship between forests and climate.

Cartons are made from a natural, renewable resource, and at the end of their life, are easily collected and recycled.



## MYTH

Cutting down trees to make paper and board is bad for the environment

## FACTS

Paper and board are one of the most sustainable products

Their original raw material comes from trees which absorb CO<sub>2</sub> from the atmosphere as they grow

Carbon is stored in a carton throughout its lifetime



As an industry based on the renewable resource of the forest, cartonboard has a unique advantage as a packaging material. It can claim that the raw material derived from sustainably managed forests captures and stores carbon; that cartons in use continue to store carbon; and that recycling cartons keeps the carbon locked up and prevents it from returning to the atmosphere.



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# Carton Packaging For Food

A key function of packaging is to protect goods whilst in transit from the factory via the shop to the home.

Packaging also provides customer information about the product and brand identity.

Efficient packaging such as cartons, minimises food waste by protecting the food in transit and on shelf from breakage, spoilage and contamination.

## MYTH

Packaging is bad for the environment and not necessary



## FACTS

Packaging protects goods  
Packaging helps to prevent food waste

Cartons are extremely versatile and can feature many special finishes and effects such as Braille, security tags and foils as well as adding textural enhancements.

Cartons are light and versatile and easily filled and stacked for transportation.



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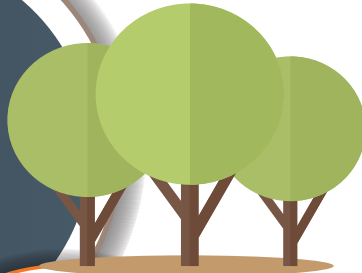


# Cartons and Sustainable Forests



## FACT

Europe's forests are increasing in size



European forests grew by 58,390km<sup>2</sup> between 2005 and 2020.

Forests today are over 30% larger than in the 1950s.

In Nordic forestry, for every tree harvested, at least three new ones are planted.



## MYTH

Using less paper and board saves trees



## MYTH

Tropical rainforests are destroyed to make paper and board



The European cartonboard packaging industry depends on trees and needs thriving forests. It practices sustainable forest management as it ensures a growing forest in Europe.

Sustainable forestry is conducted according to clear guidelines which means that the raw material can be utilised while still nurturing the forest's biodiversity.

There are also certification systems and product labelling for recycled material in order to recognise the important role that recycled paper and board plays in protecting forests.



## FACT

Cartonboard packaging is made from forests which are sustainably managed



## FACT

No tropical hardwood is used for paper and board making



Deforestation mainly occurs in the southern hemisphere, usually due to unsustainable forest practices and fuel requirements.

The European cartonboard packaging industry does not use wood from tropical forests.



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# Cartons Are Fit for Purpose



## MYTH

Everything is packed in too much packaging



Carton producers aim to minimise over packaging by designing cartons in the following ways:

- Use design holistically to optimise overall economic and environmental performance
- Make the carton from sustainably sourced materials which are effective and safe
- Meet market criteria for performance and cost
- Meet consumer choice and expectations
- Design for efficient recovery and recycling after use



## FACTS

Well-designed packaging meets the requirements of the product and consumer while minimising environmental impacts of both the product and its package.

Optimal packaging uses only as much of the right kind of material as is necessary to perform this task



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# Cartons Impact The Environment



Good recyclability of used paper products depends on good eco-design. Over and above savings made in terms of new material and therefore source reduction, eco-design aims to reinforce the recyclability of cartonboard and leads to many environmental benefits. These include optimising the use of natural resources, improving waste collection systems, reducing the generation of waste and use of unrecyclable components.



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# Cartons' Modern Design & Production

Carton packaging is used every day and to remain relevant to modern living, must be versatile and ready to respond to changing needs.

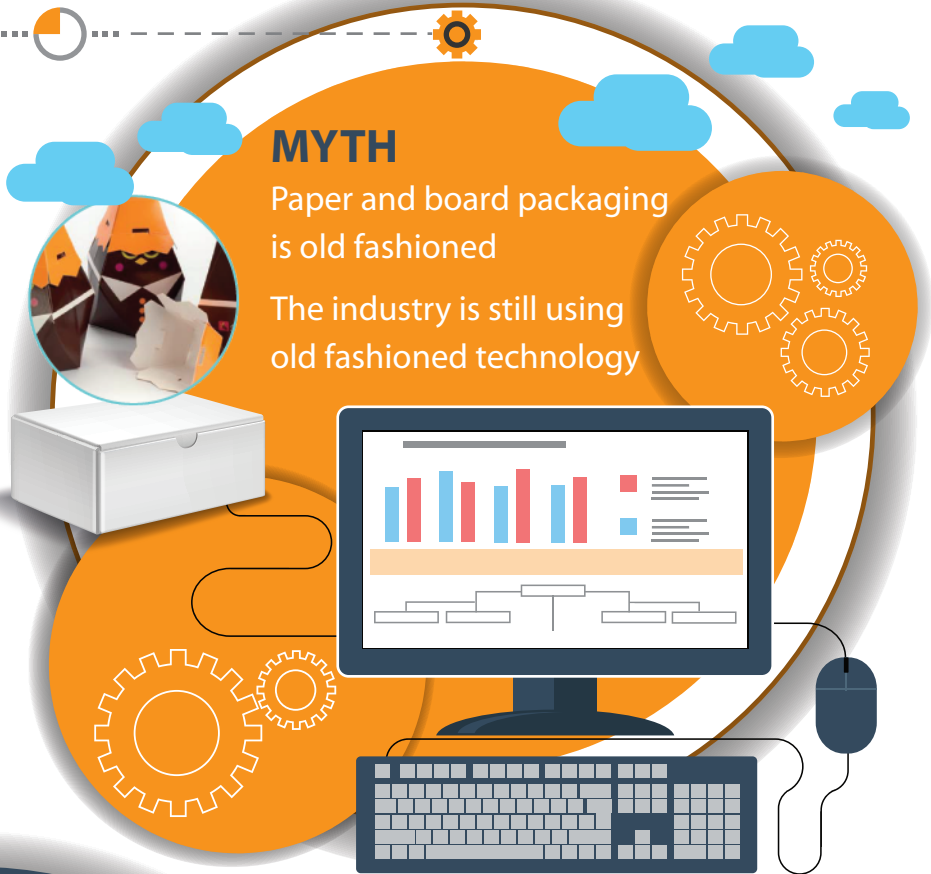
Cartons are ideal for presenting the latest digital technology to help brand owners and retailers to communicate with customers, such as QR codes, interaction via Augmented Reality and RFID tags.

The carton production process uses cutting edge technology. Carton designs also lead the way in innovation and brand promotion, especially the cartons for prestigious and premium goods. Cartons' ability to continuously innovate makes them the sustainable choice for today and in the future.

## MYTH

Paper and board packaging is old fashioned

The industry is still using old fashioned technology



## FACT

Carton designs are constantly innovating

Cartonboard and carton production processes are computerised, automated, highly efficient, modern and clean



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# Cartons Use Virgin & Recycled Fibres



## MYTH

Better for the environment to use recycled cartonboard packaging



Cartonboard packaging is based on a renewable raw material, which is the wood fibre from the forest.

These virgin fibres enter a flow system where virgin and recycled fibres are both used on a continuous basis.

The functioning of the whole system gives the best result for the environment.



Paper fibres can be recycled more than 25 times, but they increasingly degrade in the recycling process, eventually losing their papermaking qualities. The degraded fibres are replaced with new virgin fibres and without this input, there would be no recycled fibre available.



## FACT

The two fibre streams, recycled and virgin, are not two separate systems but are interconnected and interdependent



## FACT

Packaging should be chosen on the basis of fitness for purpose not fibre type



A key factor is that the pack has the right physical properties to protect the product.



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