

The Carbon Cycle

Role of cartonboard's natural raw material



Forests and Cartonboard

In Northern Europe...



...the main species of tree used for paper and board production are Birch, Pine and Spruce.

Most of the timber used in the industry...



...is from European Forests. Most of the rest comes from Russian forests.



European Forests...



...provide fibre needed on a sustainable basis.

82% of the industry's raw materials are sourced in Europe from responsibly managed forests.

Forest area in Europe is increasing *not* decreasing...

Every year new growth exceeds the wood harvested by an area equivalent to 1.5 million football pitches.



Or...



...put another way
512,000 ha
From 2005 to 2010

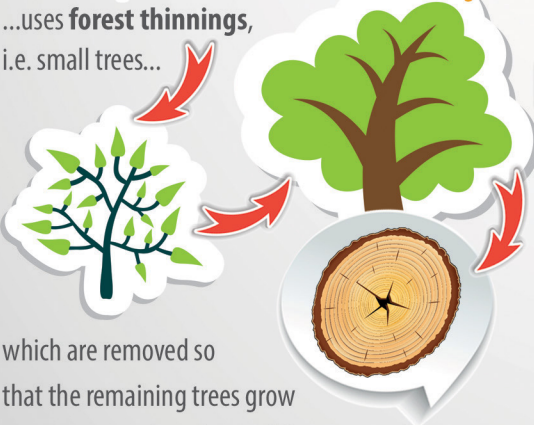
In Europe



37%
About 37% overall of the land is forested.

The Paper & Board Industry...

...uses **forest thinnings**, i.e. small trees...



which are removed so that the remaining trees grow to maturity and can be used for sawn timber.

Uses only parts of a Tree...



The small diameter tops of large trees and the round sections of the trunks which are removed in the saw mills (saw mill waste).

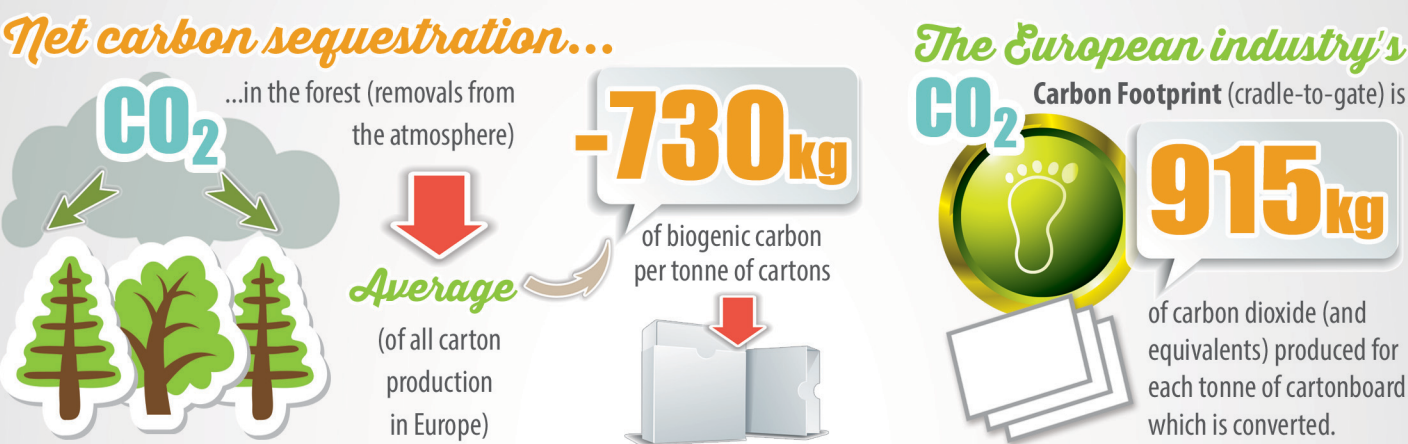
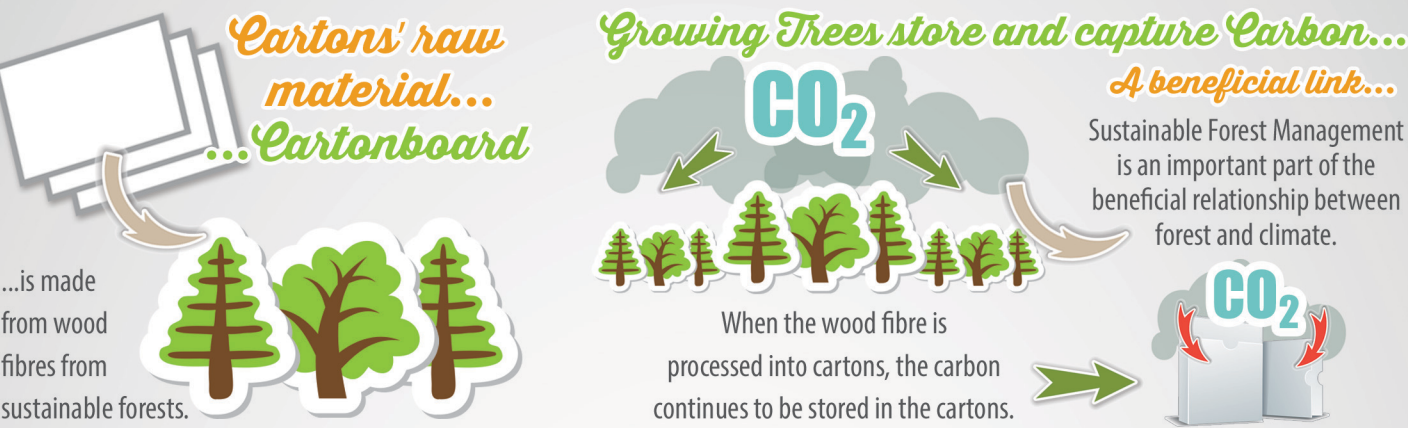


NO Tropical Rain Forests used or destroyed...



...in order to produce paper and board. Wood from tropical rain forests is not used as it is not technically suitable.

The Carton Industry's Position on Carbon Footprint - fossil and biogenic carbon



The Carbon benefits of recycling



Energy use

Leader in Renewable Energy

56%
of
Primary Energy

Used in the European pulp,
paper and board industry is
Biomass based

With
Wood
by-products

Providing renewable energy

As Electricity
& Steam

For the

Manufacturing
Process

Our Industry

is the largest producer
and consumer of
Biomass based energy

20%
of the EU total

Avoiding use
of non-renewable
energy sources

Such as fossil-based oil,
coal or gas

Our Industry
is more carbon efficient...

CO₂ **43%**
Down by
PER TONNE

of product compared to 1990

90%
of

European Mills

Have installed

combined heat
and power
(CHP) plants

Providing

96.4%

of the Electricity
used in...

Pulp & Paper Mills

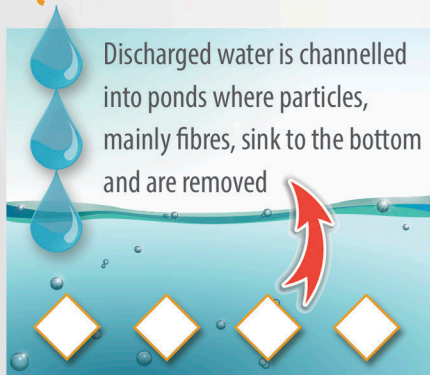
Use of Water

Water use in cartonboard production

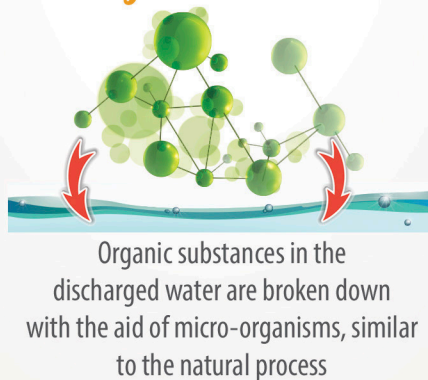


Water Treatment

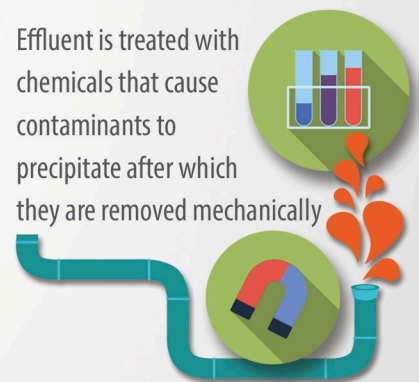
Mechanical Treatment



Biological Treatment



Chemical Treatment



Water is usually taken from a nearby surface source such as...



Recovery and Recycling

Recycling Cartons

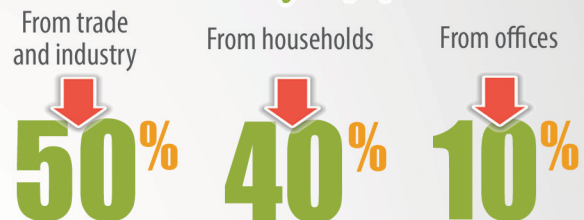
Folding Cartons...



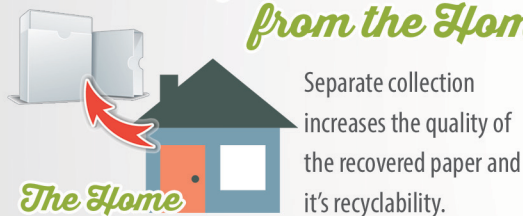
For Recycling to happen...



The main sources of all paper collection



Increasing collections from the Home



Diverting more paper and board from landfill sites...



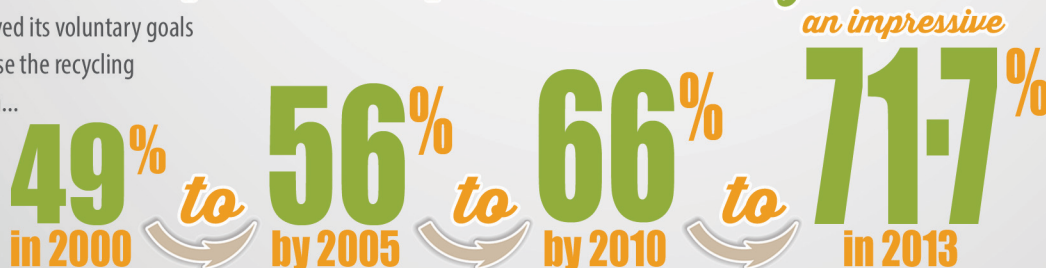
Paper and board is the most recycled packaging material in the EU



Increasing the recycling rate

The European Paper Industry...

... achieved its voluntary goals to increase the recycling rate from...



And the Trend continues

European Recovered Paper Council
Recycled paper in Europe is 1.5 times higher than in 1998.