

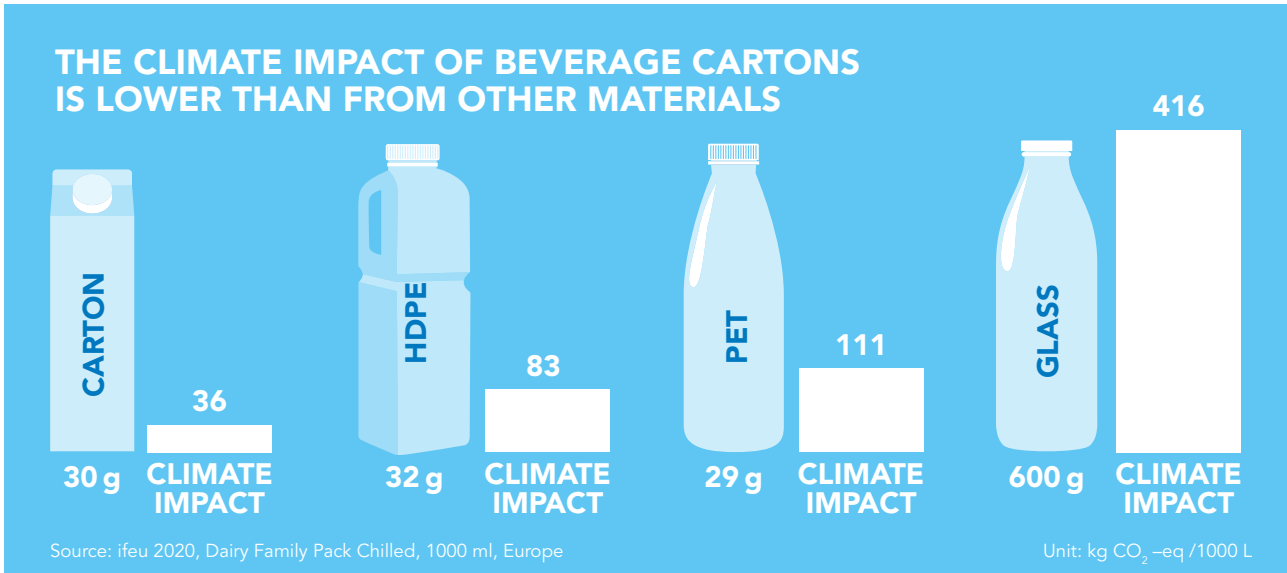
MAKING A GOOD CHOICE



BEVERAGE CARTONS ARE YOUR SUSTAINABLE CHOICE

Packaging plays an important role in protecting food and drinks, and ensuring valuable resources do not go to waste. By choosing a good package, you can contribute to sustainable development. Beverage cartons have

a lower climate impact than glass, metal and plastic packaging according to recent Life Cycle Assessment (LCA) studies.

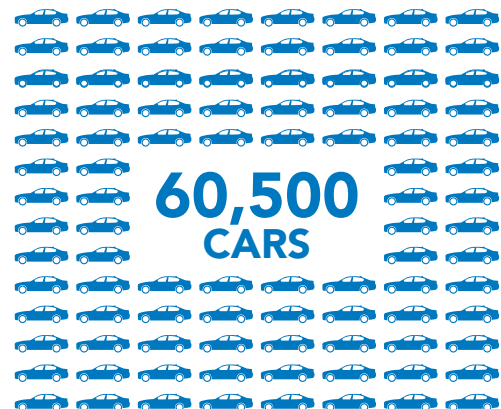


KEY FINDINGS

- Beverage cartons have a lower climate impact compared to other materials such as glass, metal and plastic.
- Renewable, plant-based materials have a lower climate impact than fossil-based materials.
- Recycling of beverage cartons contributes to reduced climate impact.

To illustrate the climate impact efficiency of beverage cartons compared to plastic packaging, we could express it in relation to CO₂ emissions produced by cars.

For example, if during one full year consumers and producers in Europe would choose beverages packed in Tetra Brik® Edge Aseptic 1L with LightCap™ 30 opening instead of PET bottles, this would save the equivalent of all CO₂ emissions produced by 60,500 cars (based on the average annual distance driven by a standard European vehicle). This is only one of many packaging formats produced each year by Tetra Pak®.*



Source: ifeu 2020, "Comparative Life Cycle Assessment of Tetra Pak carton packages and alternative packaging systems for beverages and liquid food on the European market"
 *1.96 billion packs of Tetra Brik® Edge Aseptic 1L with LightCap™ 30 were sold in 2019; the average annual distance for a vehicle in Europe is 12,000km (Source: Odyssee Mure indicators database)

MEASURING SUSTAINABILITY

HOW WE MEASURE ENVIRONMENTAL IMPACT

Life Cycle Assessment (LCA) is a method of measuring the environmental impact of a product throughout its lifecycle. It analyses all stages in the value chain including energy production, extraction and use of raw materials, manufacturing, transportation, handling, recycling and waste. The LCA used by Tetra Pak was conducted by

an independent research institute and reviewed by an independent international panel of experts. It is conducted as a fully ISO 14040/14044 compliant LCA study for the European market. The facts and figures in this summary document are based on the study¹.

A SCIENCE-BASED APPROACH TO SUSTAINABILITY

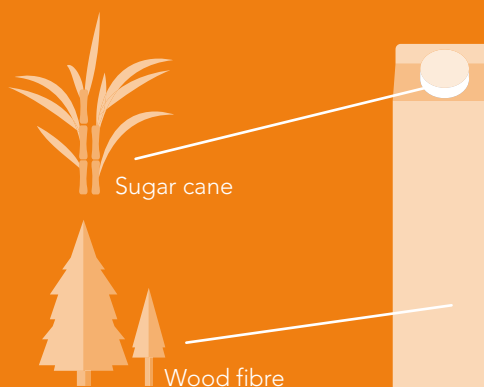
At Tetra Pak, we have been using the LCA method to investigate the environmental impact of our products since as far back as the mid 1980's. Understanding the impact along the product lifecycle is important for us to identify

opportunities to improve our products and guide the design for sustainability. With this scientific approach, we can improve our sustainability performance continuously.

ENVIRONMENTAL IMPACT:

The ifeu LCA 2020 analyses different aspects of environmental impact, divided into 11 categories. Examples are: climate change, acidification, air pollution, eutrophication² and energy use. The LCA is a cradle-to-grave analysis and provides a comprehensive picture of a product's environmental impact, which helps Tetra Pak and our customers make more informed decisions.

The results show that a **Tetra Pak carton package has the lowest impact in a majority of the environmental categories**, but not in all. For example, in the impact category "use of nature", beverage cartons consistently have a higher impact than comparable alternative packages. However, our packages are FSCTM certified, which supports responsible forest management. We have already delivered more than 500 billion FSC-labelled packages worldwide. For our plant-based plastic, we have full traceability in our supply chain using the Bonsucro certification, supporting sustainable agricultural practices in sugarcane – the raw material for the plant-based plastic.



www.bonsucro.com



CLIMATE CHANGE IS A KEY ISSUE

When looking at results from our LCAs we focus on the climate impact from packaging and strive to reduce it more and more. Climate change is the defining issue of our time and requires immediate action to limit global warming to less than 1.5 - 2°C, as per the Paris Climate Agreement signed at the UN Climate Change Conference. Today more than 99% of the scientific community is in consensus that humans are the main cause of global warming³.

At Tetra Pak, we work systematically to reduce our climate impact, to contribute to a low carbon circular economy. In our own operations, we work in a number of focus areas, including energy use optimisation, using renewable energy, and installing onsite renewable energy solutions. This allows us to continuously lower the environmental impact from our business.

1. ifeu 2020, "Comparative Life Cycle Assessment of Tetra Pak carton packages and alternative packaging systems for beverages and liquid food on the European market"

2. Eutrophication is a process driven by enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, leading to: increased growth, primary production and biomass of algae; changes in the balance of nutrients causing changes to the balance of organisms; and water quality degradation (Source: UNEP)

3. <https://www.theguardian.com/science/2019/jul/24/scientific-consensus-on-humans-causing-global-warming-passes-99>

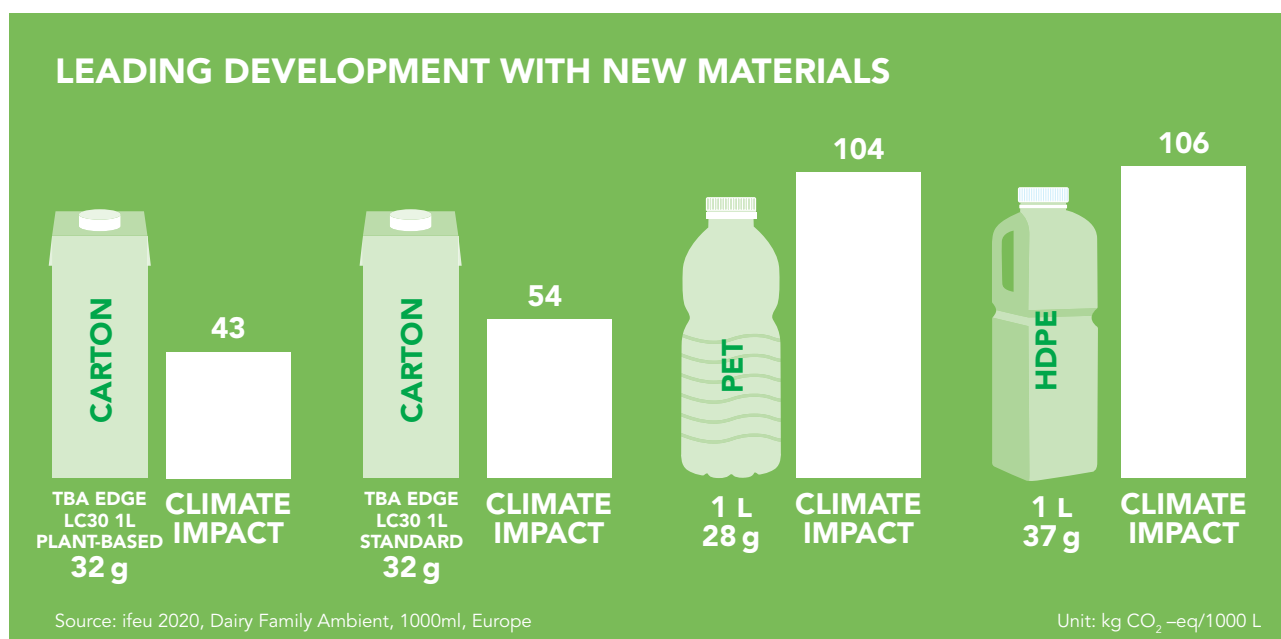
CLIMATE SMART MATERIALS

Renewable materials are better for the climate: they absorb CO₂ in the atmosphere, as opposed to fossil-based materials, that release new CO₂, which was stored in the ground for millions of years. Paperboard made from wood fibres, and plant-based plastic made from sugar cane, are renewable materials.

Materials that are made of finite raw materials such as metal, oil or sand are not renewable fossil materials.

Therefore, glass made from sand or plastic made from fossil raw materials such as oil and natural gas are not renewable.

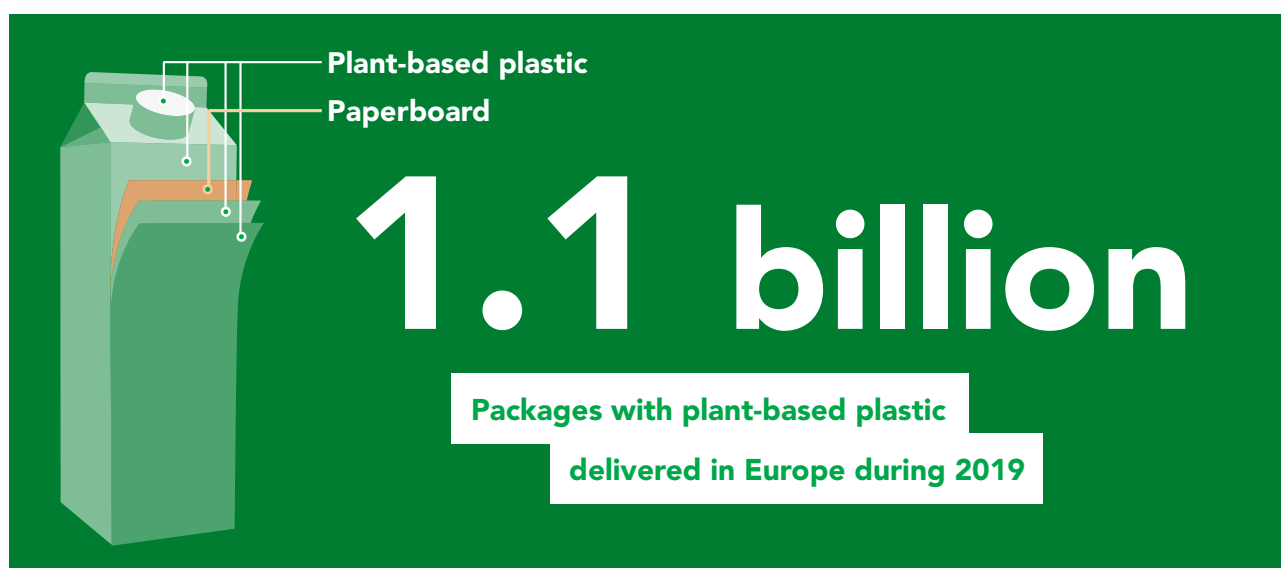
The results from the ifeu LCA 2020 show that the greater the share of renewable materials a package contains, the lower the climate impact. Therefore, from a climate perspective, beverage cartons are a good solution compared to alternative fossil-based materials.



LEADING DEVELOPMENT WITH NEW MATERIALS

With innovation and sustainability at the centre of our business, we at Tetra Pak develop renewable packaging solutions systematically. Tetra Pak has the ambition to develop aseptic carton packages that are entirely made from renewable and recyclable materials. Today, we are leading the development

of packaging with plant-based plastic in our industry. Since 2015, more than 30,000 tonnes of fossil-based plastic in Tetra Pak packages have been replaced with plant-based plastic in Europe, which saved around 80,000 tonnes of CO₂ emissions.



WEIGHT, TRANSPORT AND RECYCLING

Lightweight packaging is better from a climate perspective. Paperboard is a light material, which contributes to a good climate performance. A carton package's lightweight structure results in high transport efficiency and fuel savings during transport.

The paperboard is delivered to the packaging production plant on a roll, making it transport efficient. Depending on the size, more than a million packages can fit into one truck. The square shape of carton packaging is also transport efficient, and efficient for storage. For

example, using carton packages with a square shape reduces the number of trucks needed for transport compared to round jars or bottles.

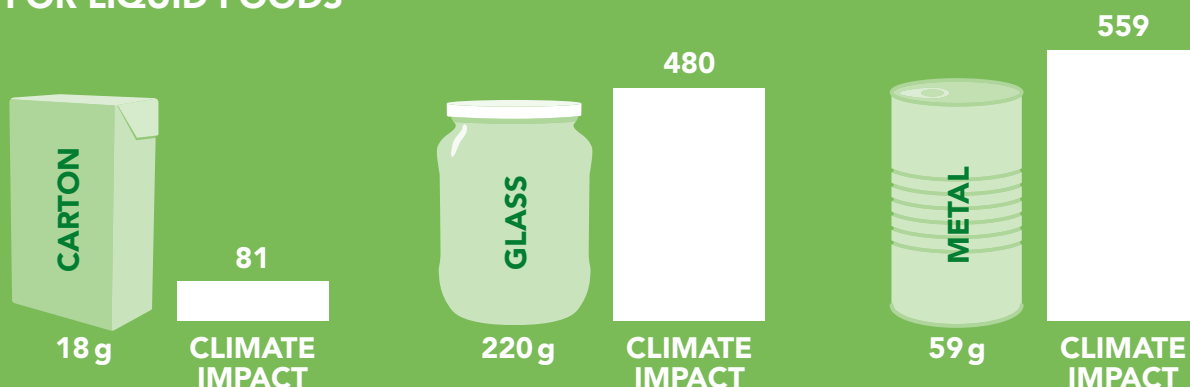
Recycling is important to improve material use and reduce environmental impact. Beverage cartons are recyclable through a straightforward process to separate paper fiber from other materials, using only water and blending equipment. As a part of the EU Plastics Strategy, Tetra Pak has pledged to ensure that recycling solutions are secured for all components of our packages by 2025.

BEVERAGE CARTONS ARE TRANSPORT EFFICIENT



*Calculated on a 23t capacity truck basis

BEVERAGE CARTONS ARE ALSO A CLIMATE SMART CHOICE FOR LIQUID FOODS



Source: ifeu 2020, Liquid Food, 390ml, Europe

Unit: kg CO₂-eq/1000 L

CONCLUSION

This document summarises the key results from a Life Cycle Assessment conducted in 2020 on behalf of Tetra Pak. It shows that beverage cartons are a climate-smart choice compared to other types of packages. They are

mostly made of renewable materials, which contributes to a good climate performance. Beverage cartons with plant-based plastic components rather than fossil-based plastic are even better from a climate perspective.