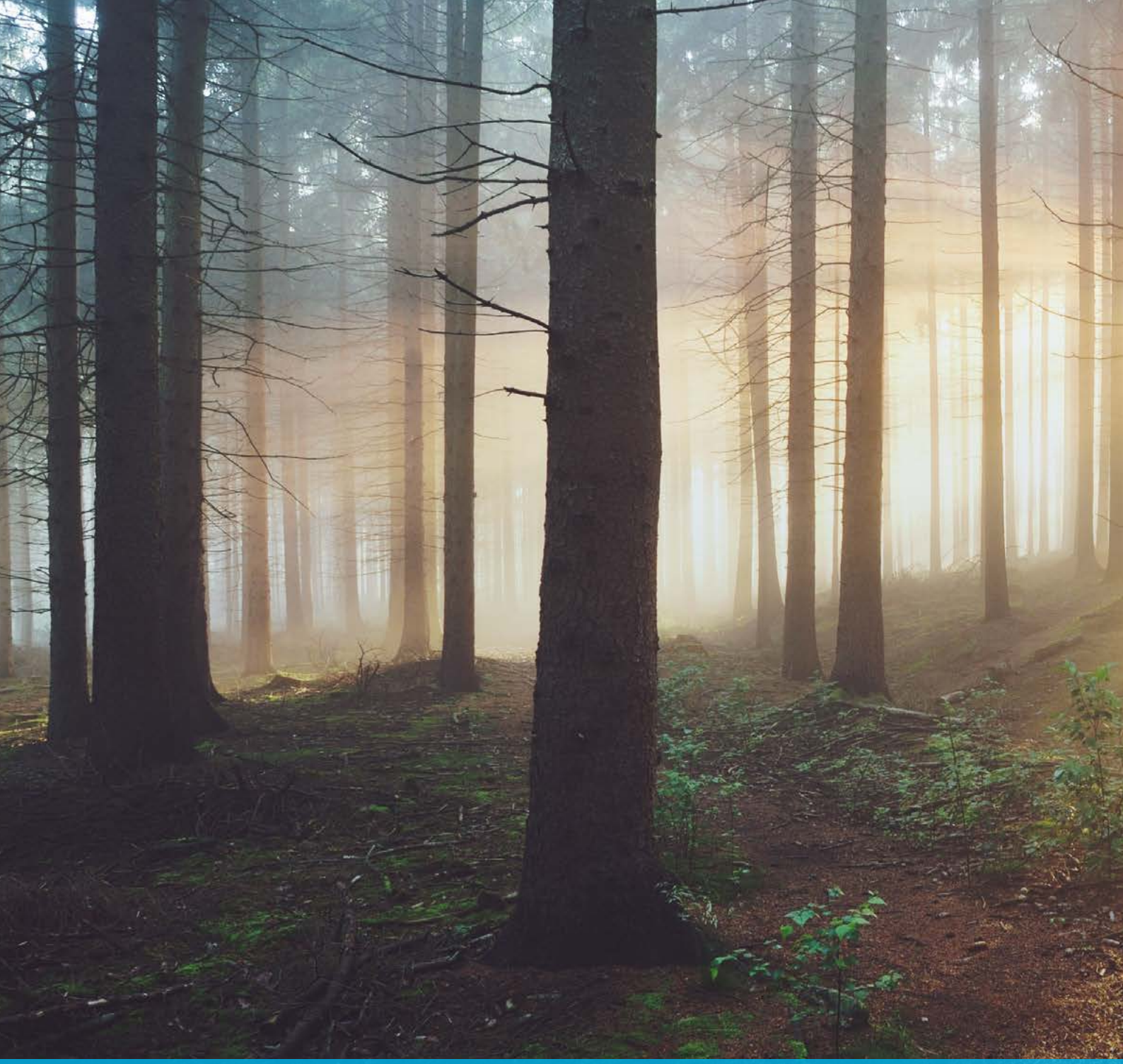


Go nature. Go carton.

Our ambition to create the world's most sustainable food package

Tetra Pak®
PROTECTS WHAT'S GOOD

Join the Tetra Pak journey.

By 2050, the world's population is predicted to reach 9.1 billion people, which will require 70% more food. At the same time, 33% of food is lost or wasted each year.

Packaging plays a critical role in the global food delivery system, helping keep food safe, nutritious and available for people around the world. But it can also cause problems for the planet, from the depletion of finite resources to increasing carbon emissions and waste piling up in landfills and in nature.

It's time to do even better – and sustainable food packaging can make a difference

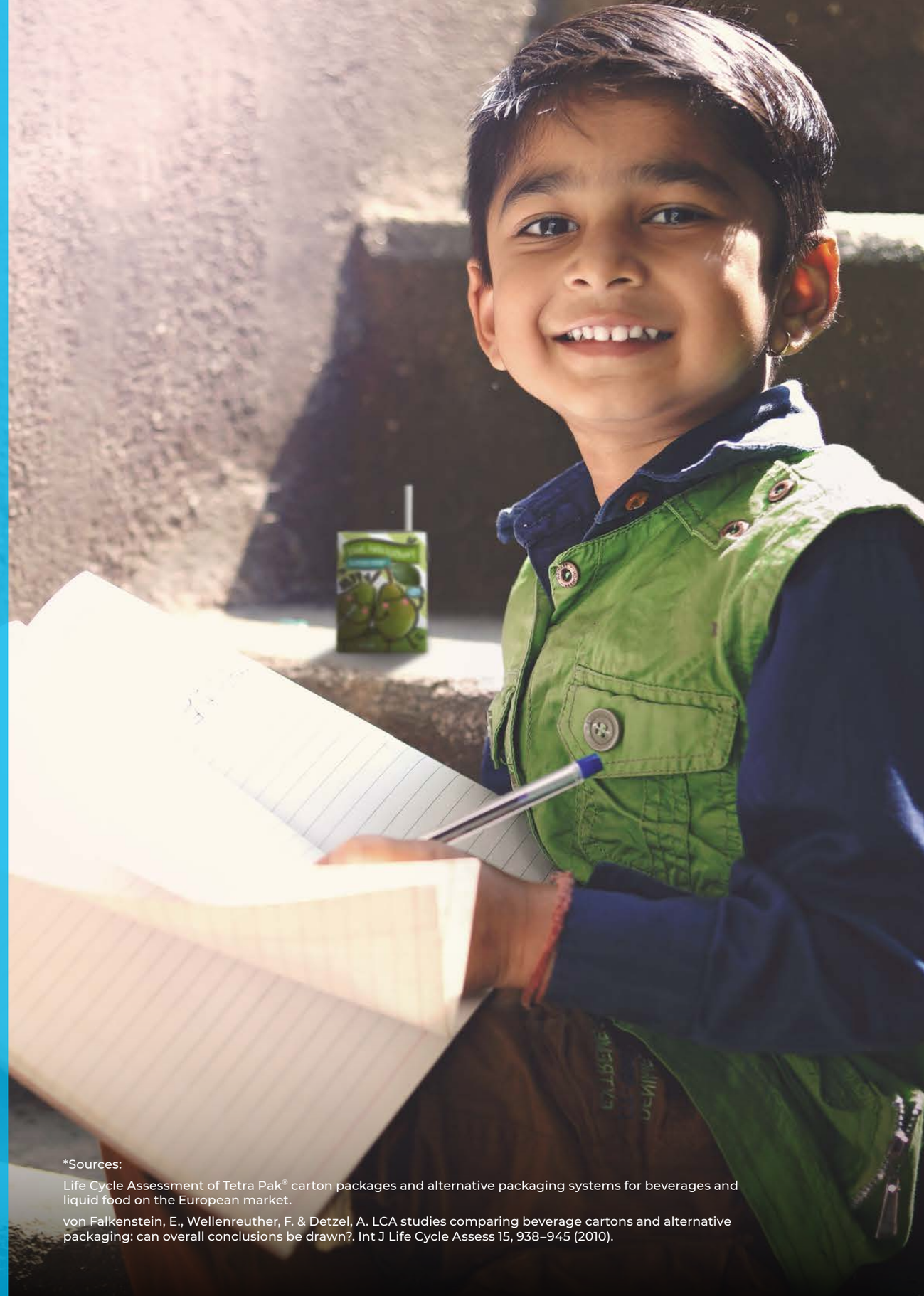
At Tetra Pak, we know it's time to think differently. Although our carton packages have always used mostly plant-based materials and comparative studies often find them to have a lower carbon footprint than alternatives*, they also contain thin layers of plastic and aluminium. We're working to reduce and remove these materials and increase the paper-based content in our carton packages.

But we won't stop there. We are on a bigger journey towards creating the ultimate sustainable package that still secures food safety and availability.

And we're not on this journey alone. We will be collaborating with food producers, innovators and the entire value chain to improve their environmental footprint, mitigate climate change and protect nature.

We invite you to join us on our journey.

Go nature. Go carton.



*Sources:

Life Cycle Assessment of Tetra Pak® carton packages and alternative packaging systems for beverages and liquid food on the European market.

von Falkenstein, E., Wellenreuther, F. & Detzel, A. LCA studies comparing beverage cartons and alternative packaging: can overall conclusions be drawn?. Int J Life Cycle Assess 15, 938–945 (2010).

PART ONE

World facts

What's happening in our world and why we at Tetra Pak need to take action.

WORLD FACT #1

Global warming can reach 4.1°C by the end of the century with irreversible impacts on the planet.

The initial objective to keep temperatures to below 2°C above pre-industrial levels is not enough. Industry and governments need to act towards emissions reduction pathways in line with 1.5°C as set by ambitious programmes, such as UN Global Compact and the Science Based Targets (SBT) initiative.

Source: https://climateactiontracker.org/global/temperatures/

WORLD FACT #2

The global food system accounts for 26% of global greenhouse gas emissions.

Energy accounts for the majority of the emissions, but farming, processing and distribution of food has a significant climate footprint.

Source: https://ourworldindata.org/food-ghg-emissions

WORLD FACT #3

The food industry responds to consumer demands, asking for climate-friendly solutions.

Climate action is increasingly becoming consumer action. This incentivises the food industry to gain competitiveness through traceability and sustainability proof points such as low-carbon packaging solutions.

WORLD FACT #4

Fossil-based plastic production is growing – and only 9% of total plastic is recycled despite industry action.

The move to circularity is often supported by collection and recycling industry initiatives. But plastic is only recycled a limited number of times today. And the use of recycled content in packaging faces limitations, particularly in food-safe applications.

Source: https://www.unenvironment.org/interactive/beat-plastic-pollution/

WORLD FACT #6

Plastic production, fueled by fossil fuels, reached 359 million metric tonnes in 2018.

Oil is a finite resource responsible for one third of carbon emissions. Although plastic has protective attributes for packaging, it depletes natural resources and contributes to greenhouse gas emissions affecting climate change.

Sources:
https://www.clientearth.org/fossil-fuels-and-climate-change-the-facts/
https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/

WORLD FACT #5

32% of all plastic packaging is not collected and plastic can take hundreds of years to degrade.

So, beyond having a critical impact on climate, plastic also poses a serious threat to ecosystems and wildlife health.

WORLD FACT

Source: https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/
Ellen MacArthur Foundation, https://www.ellenmacarthurfoundation.org/assets/downloads/Ellen MacArthurFoundation_TheNewPlasticsEconomy_Pages.pdf

WORLD FACT #7

Packaging made primarily from aluminium is energy-intensive to produce.

Like plastic, aluminium has protective attributes. But it has a high carbon footprint and is based on strip mining.

WORLD FACT #8

Paper-based packaging is catching high industry interest, under the condition of full circularity.

Food manufacturers and retailers are increasingly using paper-based alternatives in their packaging portfolio. This is an important step towards a low-carbon circular economy with increased focus on renewable materials sustainably sourced.

WORLD FACT #9

Plant-based materials are renewable and better for the environment.

Carton packages are predominantly paper-based and can be made with plastics derived from plants already today. Renewable resources can be replenished over time and enable a move away from fossil-fuel based materials, with a lower carbon footprint and reduced environmental impact.

WORLD FACT

Source: https://www.ellenmacarthurfoundation.org/assets/galleries/ce100/CE100-Renewables_Co.Project_Report.pdf

PART TWO

The Tetra Pak ambition

The key sustainability challenges we need to solve and how we plan to get there.

We want to create the world’s most sustainable food package.

At Tetra Pak, we know that recycling of food packaging is important, but we also know that it is not enough. To protect the planet, we believe the future package should maximise the use of materials with a reduced impact on nature.

Our carton packages are made of on average 70% paperboard, but they also contain thin layers of plastic and aluminium. We aim to reduce the use of plastic, remove aluminium and increase the use of responsibly sourced paper-based content in our carton packages.

But to achieve the world’s most sustainable food package, we have to take many other aspects into account, such as carbon emissions, biodiversity, food safety, regulations and much more. In other words, we need to consider the full lifecycle of the package.

Looking across the value chain, we can identify 5 main challenges for a sustainable food packaging future that's good for nature and reduces climate impact.

Raw material & sourcing

Challenge:

We need to make packaging of renewable or recycled materials, so we don't drain our planet of resources. At the same time, we need to source these resources in a responsible way to protect biodiversity and natural environments.

Production & distribution

Challenge:

We need to make packaging that supports a carbon-neutral production & distribution to reduce the negative impact on the climate.

Food protection & consumption

Challenge:

We must continue to make packages that are convenient and safe, ensuring a resilient food system, where we reduce food waste and secure that food is available to everyone, everywhere.

Recycling

Challenge:

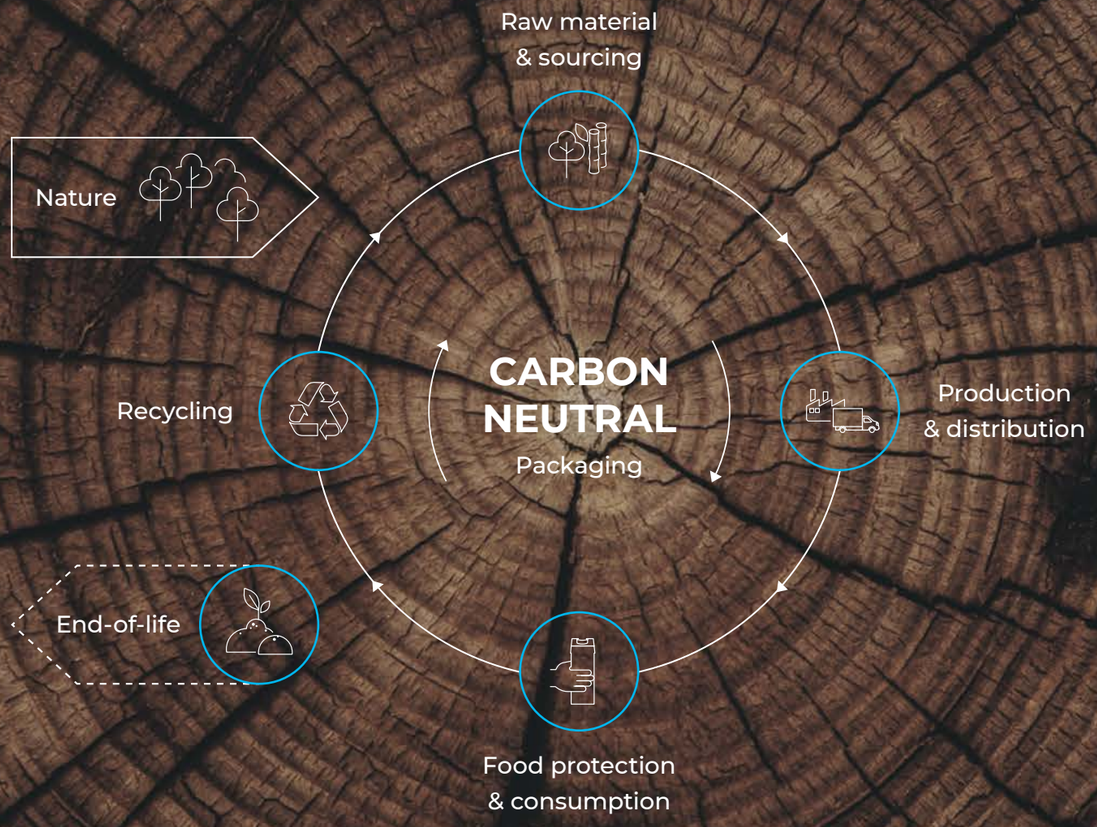
We must make packaging that is fully recyclable, and help build an integrated system that supports full recycling to keep materials in use.

End-of-life

Challenge:

We need to focus on the use of materials with a reduced impact on nature, as waste management systems across the world are far from optimal and not all materials can be infinitely recycled.

At Tetra Pak, we want to develop the world's most sustainable food package by following a circular model.



Optimising sustainability at each stage of the lifecycle.

Raw material & sourcing.

Paper-based carton packages made from fully renewable or recycled materials that are sourced in a responsible way.

Production & distribution.

Carbon-neutral production with minimal environmental impact.

Food protection & consumption.

Packaging that makes food safe and available without the need for refrigeration, backed by solutions that ensure traceability and reduce food waste.

Recycling.

Fully recyclable packaging with a supporting collection, sorting and recycling infrastructure everywhere to keep materials in use.

End-of-life.

Reducing the use of plastics and using materials with a reduced impact on nature.

THE TETRA PAK JOURNEY FOR:

Raw material & sourcing.

Pioneering a fully renewable paper-based package.

To preserve our planet and climate, we need to limit permanent drainage of our planet's fossil-based resources. That's why we aim to increase our renewable plant-based materials, including paper-based straws and caps made of sugarcane. The ambition is to refine our fully renewable solutions to fit all our applications and at industrial scale to meet demand.

Always exploring new alternatives.

As part of our commitment towards fully renewable packaging, we're continuously exploring sustainable alternatives that shift us from high-carbon, fossil-based materials to low-carbon, renewable and responsibly sourced materials. We also aim to increase the use of recycled materials in our packages to extend the life of materials without compromising food safety and quality.

Protecting biodiversity through responsibly sourced materials.

To protect biodiversity, we rely on a platform of voluntary certification standards, such as the Forest Stewardship Council™ (FSC™), Bonsucro and the Aluminium Stewardship Initiative standard (ASI). These certifications help us ensure we meet all the criteria and provisions for protecting biodiversity. And we support the continuous improvement of such standards and monitoring systems over time.

The FSC license code for Tetra Pak is FSC™ C014047

The first in our industry to have our packages FSC™-certified.

In March 2019, Tetra Pak passed the milestone for 500 billion packages carrying the FSC™ label. Today, 100% of our packages are FSC™-certified. We only source materials from well-managed forests and other controlled sources, including a focus on reforestation and wildlife protection.

Launching paper-based straws in Europe.

In 2019, Tetra Pak were the first company to launch paper straws on beverage cartons in Europe. The straws are fully functional and meet internationally recognised food safety standards. This was an important step in our vision to deliver a package made entirely from plant-based materials.

First to introduce a fully renewable beverage package.

In 2014, Tetra Pak were the first in our industry to introduce a package made entirely from plant-based renewable materials. Manufactured only with paperboard and sugarcane-based plastic, the Tetra Rex® Plant-based package is fully renewable, and today, we've delivered more than 1 billion of such packages to customers around the world.

First to use responsibly sourced sugarcane-based plastic.

In 2019, in partnership with our plant-based polymer supplier, we became the first company in our sector to obtain Bonsucro Chain of Custody certification, which includes all stages in the supply chain from feedstock production to final packaging. Bonsucro standards follow environmental, social and economic principles, promoting human rights and labour standards, biodiversity and efficiency.

THE TETRA PAK JOURNEY FOR:

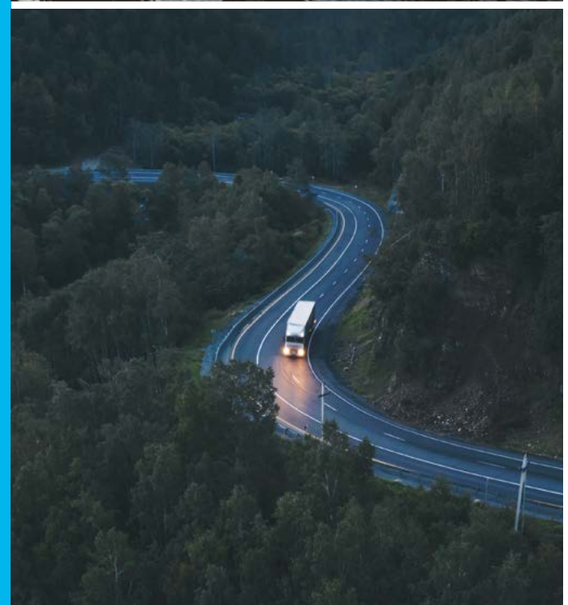
Production & distribution.

Net-zero GHG emissions.

In 2020, we announced our commitment to reach net-zero greenhouse gas (GHG) emissions in our own operations by 2030, with the ambition to achieve net-zero GHG emissions for the entire value chain by 2050. We were the first company in the food packaging industry to have our climate impact reduction targets approved by the Science Based Targets initiative (SBTi) in 2017 and we have already avoided 12 million tonnes of CO_2 emissions since 2010.

Efficient transportation.

Looking beyond sourcing and production, the lightweight paper-based materials and form factor of Tetra Pak® carton packages enable more efficient stacking and larger truckloads, compared to alternatives – reducing the total distribution and operational footprint for our customers.



Working towards net-zero emissions by 2050.

To achieve our ambition to reach net-zero GHG emissions by 2050, Tetra Pak are focusing on improvements in energy efficiency, shifting to renewable energy, cooperating with suppliers along the value chain to cut upstream emissions, accelerating our development of low-carbon packaging and equipment and helping to develop sustainable recycling value chains.

Towards 100% renewable energy.

Going beyond the package, Tetra Pak are also investing in using renewable energy across all operations. We have so far increased the share of renewable electricity to 69%, and are well on track towards our RE100 target of 80% by the end of 2020 and 100% by 2030.

Up to 20% more units per truck.

The efficient shape of Tetra Pak® carton packages means that they can be stacked closely together with minimal wasted space. Consequently, fewer trucks are needed to carry our products, less fuel to haul the weight, and less space to store the products. As an example, our Tetra Recart® takes up 30% less space than cans, resulting in 10-20% more units per truck.

THE TETRA PAK JOURNEY FOR:

Food protection & consumption.

Securing food safety & availability.

Our packaging protects food without the need for preservatives or refrigeration, saving energy, and helping make safe, nutritious and flavoursome products available to more of the world's rapidly growing population. Even in remote areas with no cold chain. Our solutions also help to prevent food loss and waste across the value chain, from the efficiency of our processing equipment in production, to the right-sizing and functionality of our packaging at consumption.

Protecting food & preventing food waste.

Reducing food loss and waste is one of our founding principles, and with 33% of food being lost or wasted each year, we will not back down on this. Our farm-to-table processing technologies and aseptic packaging solutions extend the shelf life of food and keep perishable food nutritious without the need for refrigeration or additional preservatives. From the control of raw materials all the way through to protective packaging, these technologies help reduce food waste and ensure more people have continuous access to high-quality nutrition.

Protecting nutritious content and taste of products – with no preservatives and no refrigeration needed.

Food waste accounts for approximately 8% of total global GHG emissions. Tetra Pak's innovative technologies focus on delivering low-waste processes and packaging that prolong the life of food and keep it from spoiling or perishing. This ensures food availability while helping to solve the food waste problem.

Source: http://www.fao.org/3/a-i8000e.pdf

Full traceability across the supply chain.

Traceability is becoming an increasingly important part of demonstrating food safety to food producers and consumers. That's why at Tetra Pak, we're committed to maintaining internationally leading standards of safety and achieving full product traceability through the entire food processing and packaging supply chain. And our packages offer the necessary space to communicate this story to consumers.

THE TETRA PAK JOURNEY FOR:

Recycling.

A full value chain approach.

Recyclability and circularity are fundamental requirements for packaging, and today Tetra Pak® carton packages are recyclable; they are collected and recycled across the world where collection and infrastructure are in place. This way, they can be transformed into a wide range of new products. Yet a low-carbon circular economy depends on sustainable recycling value chains, which ensure carton packages are collected, sorted and recycled at scale. That's why we're striving for increased recycling worldwide, working with collaborators across the full value chain and more than 170 recyclers globally, and why we co-invest in recycling capacity and initiatives.

Ensuring materials are a valuable input.

Tetra Pak is an active member of global and regional industry initiatives aimed at jointly addressing collection and recycling of carton packages. On one hand, we have engaged in innovation collaborations to advance on the technology roadmap towards the future carton package as well as new recycling technologies. On the other hand, we collaborate with players across the full waste management value chain to strengthen the collection, sorting and recycling infrastructure of our carton packages. That's how we can increase the circularity of our packages.

Increasing recyclability with increased paper-based content.

Our ambition includes reducing the amount of plastic, starting to remove aluminium by 2021 and increasing the paper-based content in our packages. We aim for fully recyclable carton packages – recycled in practice and at scale globally – made solely from renewable or recycled materials.

Introducing the use of recycled material in our carton packages.

Beyond the recycling of our packages, the other side of circularity and extending the life of materials is the ability to use recycled content in our packages, without compromising food safety and quality*. We have committed to introducing 10% recycled plastic content across our carton packages in Europe by 2025.

*This depends on the technical and commercial availability of food safe materials.

Collaborating with companies in the waste management system.

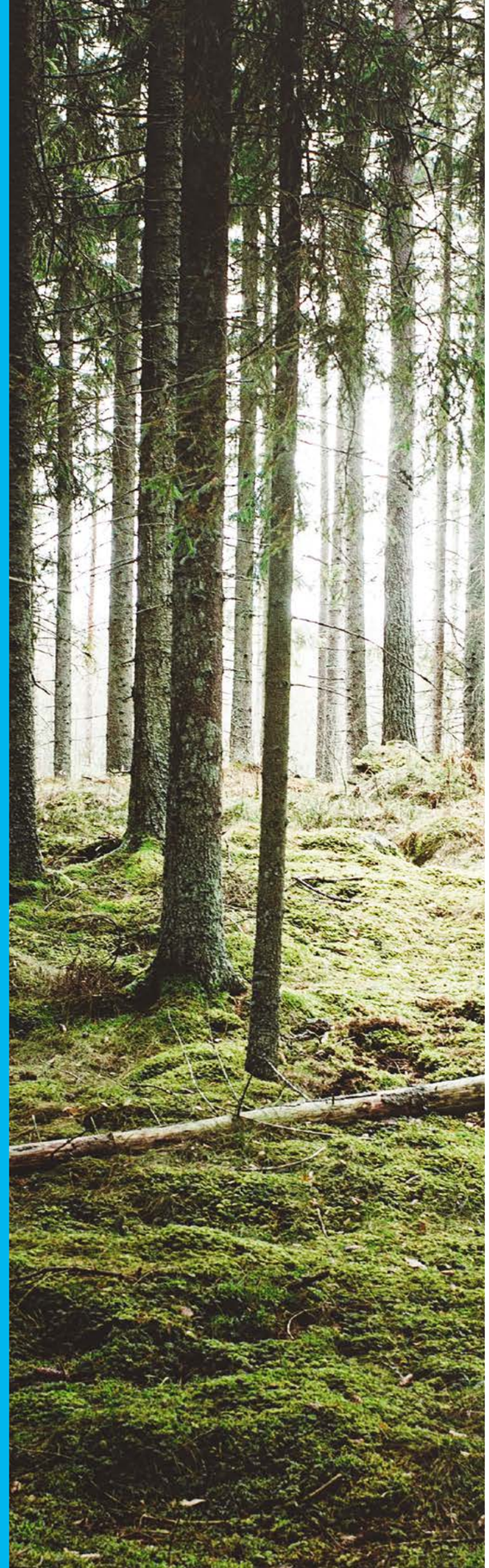
We've joined forces with Veolia to enable increased recycling of beverage carton packages. The recovered fibres from paperboard can be converted into high-quality paper pulp, and the polymer and aluminium fraction into a wide range of other products. With this collaboration, the extracted non-fibre content will be processed at dedicated facilities and converted into raw materials. This is expected to increase the overall value and recycling of used beverage carton packages.

THE TETRA PAK JOURNEY FOR:

End-of-life.

The future package maximizes the use of materials that reduce the impact on nature.

Since waste management systems across the world are far from optimal and not all materials can be infinitely recycled, we need to focus on the use of materials with a reduced impact on nature. Today Tetra Pak® carton packages are made with an average of 70% paperboard – the sustainable alternative for nature. Our ambition includes reducing the amount of plastic, starting to remove aluminium by 2021 and increasing the paper-based content in our packages.



Replacing fossil-based finite materials with responsibly managed renewable materials can decrease carbon emissions.

Forests and sugarcane crops absorb CO_2 from the atmosphere whilst growing. According to a recent European study, “choosing forest-based products over fossil materials is good for the climate”. Renewable materials cycle atmospheric carbon – leaving fossil carbon in the ground. By increasing the paper-based content and share of renewable materials, not only do we minimise end-of-life impact but we also reduce the impact on nature.

Source: New Cepi study on material substitution effect: Choosing forest-based products over fossil materials is good for climate and EU economic recovery

The world’s most sustainable package should be fully renewable, fully recyclable, carbon-neutral – and created by Tetra Pak.

A traditional Tetra Pak® carton package is made from an average of 70% paperboard, 25% plastic and 5% aluminium to protect the product inside. These carton packages are already recyclable, but to reduce our impact on nature and increase recycling, we are investing heavily in the research and development of carton packages that are made with a simplified material structure and increased paper-based content. Besides removing aluminium, we aim to create a food package with a reduced amount of plastic. That means the world’s most sustainable food package will be made fully of responsibly sourced renewable or recycled materials, and it will be fully recyclable and carbon-neutral.

Go nature. Go carton.

Learn more at
gonature.tetrapak.com

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