

# Protects What's Good™

Sustainability Report 2022

The Araucaria Conservation Programme in Brazil

 **Tetra Pak**®  
PROTECTS WHAT'S GOOD

# Content

## ① Driven by Our Purpose

- > [Message from the CEO](#)
- > [Executive Summary](#)
- > [Sustainability Performance Highlights](#)
- > [About Us](#)
- > [Our Approach to Sustainability](#)
- > [Our Stakeholders](#)
- > [Our Sustainability Priorities](#)

3

4

6

9

11

12

13

14

## ② Our Focus Areas

- > [Contributing to Secure, Resilient, and Sustainable Food Systems](#) 16
  - > [Acting for Nature](#) 24
  - > [Taking Action on Climate](#) 34
  - > [Driving Circular Solutions](#) 46
  - > [Creating Positive Impact for People & Communities](#) 56
  - > [Securing Responsible Business Practices](#) 66
- 
- > [About this Report](#) 71



# Driven by Our Purpose

➤ Message from the CEO	4
➤ Executive Summary	6
➤ Sustainability Performance Highlights	9
➤ About Us	11
➤ Our Approach to Sustainability	12
➤ Our Stakeholders	13
➤ Our Sustainability Priorities	14



# Message from the CEO

As the world continued to experience the direct and indirect impacts of the COVID-19 pandemic, including global supply chain disruptions, resource shortages, employment challenges and inflation – these have not been easy times. Additionally, the start of 2022 brought the Russian invasion of Ukraine, which will have a further knock-on effect on the global economy. This tragic and terrible war, which we strongly condemn, unfortunately shows no signs of abating. And like many others, we hope that an immediate resolution can be found and peace can prevail.

These global events have a significant impact on global logistics and raw material prices. At Tetra Pak, we are doing our utmost to minimise the impact of these disruptions on our global supply chain. However, with demand being volatile, supply tight, and logistics unreliable, we need to think differently to secure supply while at the same time using these opportunities to set up more sustainable supply chains. This requires better planning and more collaboration with suppliers and food and beverage manufacturers to rethink existing setups and potential local sourcing. This reality is reflected in the industrial trend of moving linear supply chains toward autonomous ‘ecosystems’ that are far more agile in reacting to constantly changing market conditions.

Despite these challenges, we remain driven by our purpose, “We commit to making food safe and available, everywhere and we promise to protect what’s good: protecting food, people and the planet”, as we continued to deliver on our priorities to protect the health and wellbeing of our employees, consumers, and communities, while doing our part to help safeguard food security and protect the environment. This would not have been possible without the commitment of our teams across the globe, working around the clock to help secure food supplies. I am extremely proud of our employees, who inspire me every day.

We have a tall ambition to lead the sustainability transformation within our industry and I recognise that we can only achieve this by delivering concrete actions across our value chain. To do that, we need to address the interconnected nature of the environmental, social, and economic challenges we face, and leverage strong and system-wide partnerships, as collaboration is more instrumental than ever in overcoming challenges successfully.

We must ‘walk the talk’ by managing and maximising our positive impacts on nature and society, continuing to embed sustainability as a key business driver and decision-making criteria, promoting a

culture of sustainability in our business and industry, and working with our value chain and food and beverage manufacturers to support their own sustainability efforts.

This Report highlights the efforts we have undertaken in 2021 to lead our industry through tangible actions.

In 2021, we engaged in the World Climate Summit at the 26th UN Climate Change Conference (COP26) and the first global UN Food Systems Summit to explore avenues with other stakeholders towards transforming food systems to make them more secure and sustainable.

We continued to make progress on our ambition to deliver the world's most sustainable food package<sup>1</sup>. Early in 2022, in partnership with Elvir, we became the first carton<sup>2</sup> packaging company in the food and beverage industry to launch a cap using attributed recycled polymers<sup>3</sup>. We also successfully finalised a commercial technology validation of a polymer-based barrier replacing the aluminium foil layer which keeps perishable food safe in aseptic cartons involving several million packages in Japan. We are now progressing to the next level of development by testing a fibre-based barrier that is a first within food carton packages distributed under ambient conditions.

<sup>1</sup> A carton package made of renewable or recycled materials, that are responsibly sourced, therefore helping protect and restore our planet's climate, resources and biodiversity; contributing towards carbon-neutral production and distribution; convenient and safe, therefore helping to enable a resilient food system; fully recyclable.

<sup>2</sup> Throughout this report, we refer to the packaging we convert as “cartons”, which is a contraction of “carton based packaging for liquid food”.

<sup>3</sup> The attributed recycled polymers used in Tetra Pak carton packages are certified by the Roundtable on Sustainable Biomaterials (RSB), according to principles of attribution (RSB Advanced Products Category III).

When it comes to our climate impact, we are on track to achieve net-zero greenhouse gas (GHG) emissions across our own operations by 2030, with the ambition to reach net-zero GHG emissions across our value chain by 2050. Our revised target, approved by the Science Based Target initiative (SBTi), for Scopes 1, 2, and 3<sup>4</sup> means we are committed to reaching a 46% GHG reduction across our operations and value chain by 2030, in line with a 1.5°C pathway. In 2021, we have reduced our combined Scope 1 and 2 GHG emissions by 27%, driven by the work done to increase the use of renewable energy in our facilities. Our operational footprint (Scopes 1, 2 and business travel) was reduced by 36% compared to our 2019 baseline. However, the overall GHG emissions reduction (Scopes 1, 2 and 3) in 2021 was flat compared to 2019, signalling that we have more to do on our scope 3 GHG emissions to reach our ambition.

As a response to the United Nations' call to make this the Decade of Ecosystem Restoration, we launched, in collaboration with the local NGO Apremavi, a pioneering nature-based land restoration initiative in Brazil in early 2022. The initiative connects a range of stakeholders to restore over 7,000 hectares of land for biodiversity recovery, carbon capture, and climate change mitigation, playing a key role in our net-zero ambitions by balancing the residual, last mile emissions.

In 2021, 50 billion cartons, equivalent to 1.2 million tonnes<sup>5</sup>, were collected and sent for recycling. We are now intensifying our efforts, in collaboration with our suppliers and other partners, to increase the effective recycling rate.

As I reflect on our achievements of the past year and think ahead into the future, I am excited to be building upon our strong foundation to advance our sustainability ambitions. Having said that, I recognise the long journey ahead and the step change needed by the industry. Collective action, innovative products and operating models, and unconventional partnerships will be necessary to accelerate the current pace of change towards a more sustainable tomorrow.

As an industry leader, we remain committed to doing our part in driving fast, system-wide, holistic changes and doing what we can to support food and beverage manufacturers in achieving their own sustainability goals. I am confident that together with our customers, suppliers and partners, we will lead the sustainability transformation for the next decades and beyond.

**Adolfo Orive**

President & CEO,  
Tetra Pak



<sup>4</sup> Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

<sup>5</sup> 'Tonnes' refers to metric tonnes.

# Executive Summary

We believe that businesses can be a catalyst for positive change and create long-term value for society. Sustainability has always been front and centre in what we do at Tetra Pak. Our founder, Dr. Ruben Rausing, once said, “a package should save more than it costs.”

More than 70 years later, we continue to uphold this philosophy, working with our partners to achieve sustainable growth that protects food, people, and the planet. We are constantly building on our solutions, both in food and beverage packaging and processing, to further support food availability, safety, and reduce food loss and waste without compromising the health of our planet. We focus on initiatives that are making tangible impact in communities around the world as a core pillar of our business.

Our ambition is to lead the sustainability transformation, which means contributing to sustainable development and positive impact through our products and services in the industries and communities where we operate.

It is important for us to establish clear ambitions, meaningful targets and actions, and concrete plans on how to move forward to ensure we meet our sustainability goals. We continuously monitor our progress and review our targets and actions to make sure they stay relevant to stakeholders and are in line with best practices and the latest science.

The table on the following page illustrates our ambitions across food, people, and planet as well as the targets and actions we set ourselves to achieve these. Likewise, it evidences the progress we have made so far to attain our ambitions and our focus moving forward.

This report outlines our integrated approach to sustainability and how we continued to progress on our ambition to lead the sustainability transformation in 2021 by:

- Contributing to Secure, Resilient, and Sustainable Food Systems
- Acting for Nature
- Taking Action on Climate
- Driving Circular Solutions
- Creating Positive Impact for People and Communities
- Securing Responsible Business Practices

Each chapter describes the work we are doing to address these most pressing sustainability issues, including our related objectives, achievements from the past year, and “Way Forward” action plans to continue our progress and expand our positive impact.

We remain committed to monitoring, managing, and reporting on our sustainability performance. We look forward to continuing our engagement with you as we progress on our sustainability journey.



**Lars Holmquist,**  
Executive Vice President,  
Sustainability & Communications,  
Tetra Pak

	Ambitions	Actions & Targets	Progress	Looking Ahead
<b>Contributing to Secure, Resilient and Sustainable Food Systems</b>	Contribute to secure, resilient, and sustainable food systems that provide access to safe, affordable, and nutritious food, and minimise food loss and food waste across our value chain.	<ul style="list-style-type: none"> <li>Advocate for secure, resilient, and sustainable food system solutions and form or join alliances supporting systems-level change</li> <li>Continue to deliver high-performance food processing technology and packaging solutions that play a role in giving more people access to safe and nutritious food, and in reducing food loss and waste</li> <li>Keep leveraging new technologies such as digitalisation and connectivity in aseptic technology to further contribute to less food waste</li> <li>Reduce food waste of our best practice processing lines by 50% by 2030 compared to 2019</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Develop innovative food processing technologies to support food and beverage manufacturers create nutritious and safe foods by, for example, reducing sugar content, and reducing food loss and waste</li> <li>Engage with stakeholders/work in partnership to drive the transition to sustainable, resilient food systems, in line with the objectives of the UN Food Systems Summit</li> <li>Drive sustainable practices in our sector and beyond, leveraging our unique position to impact the food value chain both upwards and downwards</li> </ul>
<b>Acting for Nature</b>	Act for nature through responsible sourcing practices and strategic partnerships to conserve and restore biodiversity, mitigate and adapt to climate change, and contribute to global water resilience.	<ul style="list-style-type: none"> <li>Source 100% of our paperboard from Forest Stewardship Council™ (FSC™) certified sustainably managed forests and other controlled sources</li> <li>Drive a positive impact on biodiversity through forest conservation and nature-based solutions</li> <li>Ensure that 100% of the paperboard in our packages is traceable to FSC™ Chain of Custody (CoC) certified paperboard processing facilities</li> <li>Maintain our CDP Forest and Climate A-List leadership ranking</li> <li>Implement CDP Water reporting by 2023 and reduce water use in our own operations by 2030</li> <li>Reduce water consumption of the best practice processing lines by 50% by 2030 compared to 2019</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Accelerate collaboration with our base materials suppliers<sup>8</sup> to achieve the 20 actions for 2030 in the 'Join Us in Protecting the Planet' sustainability initiative</li> <li>Contribute to various initiatives, including the Corporate Engagement Programme of the Science Based Targets for Nature, Alliance for Water Stewardship, and the Sustainable Procurement Pledge</li> <li>Progress on the Araucaria Conservation Programme goals in Brazil</li> <li>Conduct a value chain Nature and Water assessment and set company targets on Nature and Water by the end of 2022</li> </ul>
<b>Taking Action on Climate</b>	Take action on mitigating climate change by decarbonising <sup>9</sup> our operations, products, and our value chain.	<ul style="list-style-type: none"> <li>Reach net-zero GHG target in our operations by 2030 compared to our 2019 baseline (Scopes 1 and 2 and business travel)</li> <li>Reach net-zero GHG ambition across our value chain by 2050 (Scopes 1, 2 and 3)</li> <li>Reach -46% GHG reduction across our value chain by 2030, in line with 1.5°C SBTi commitment, with a 2019 baseline</li> <li>Source 100% renewable electricity in our operations by 2030 in line with RE100 commitment</li> <li>Reduce carbon footprint of our best practice processing lines by 50% by 2030 compared to 2019</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>⊖</li> <li>⊖</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Work with our base materials suppliers to get certified against the new SBTi Corporate Net-Zero Standard</li> <li>Support our base materials suppliers in reducing their GHG emissions by 50% by 2030 with a 2019 baseline</li> <li>Phase out the use of fossil fuels in our onsite vehicles and offsite global car fleet</li> <li>Reduce energy demand through proactive energy management enabled by a Common Energy Monitoring Platform (CEMP)</li> <li>Increase our renewable solar photovoltaic (PV) capacity</li> <li>Focus on four steps to deliver on the 50% reduction goals related to food processing lines: Avoid, Optimise, Recover and Neutralise</li> </ul>

Ambitions	Actions & Targets	Progress	Looking Ahead
<p><b>Driving Circular Solutions</b></p>	<p>Drive circular solutions by designing recyclable liquid food packaging, using recycled and renewable materials, and expanding collection and recycling to keep materials in use and out of landfills.</p> <ul style="list-style-type: none"> <li>Put aseptic packaging with fibre-based barrier replacing aluminium foil layer on market starting 2022</li> <li>Continue deploying tethered caps in Europe towards 100% tethered by, latest, 2024</li> <li>Continue deployment of attributed recycled polymers to achieve a minimum of 10% recycled plastics in packages sold in Europe by 2025</li> <li>Take a leading role in industry collaborations to create a standard definition and assessment of what is a recyclable packaging, with third party certification, to enable homogeneity in design for recycling guidelines across local markets</li> <li>Plan to invest<sup>10</sup> around €120 million in the collection and recycling local ecosystems in the coming 3 years to increase the effective recycling rate</li> <li>Build upon a dedicated team of around 70 employees across countries to advise local authorities on collection and sorting schemes, co-invest with industrial partners in new recycling capacities, and implement various activities across the recycling value chain</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>⊖</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Invest a total of up to €100 million per year over the next 5-10 years to further enhance the environmental performance of our packaging portfolio, including reducing use of plastics and aluminium, while innovating on paper functionality with our existing and new value chain partners</li> <li>Increase activities with relevant players in the value chain towards the use of recycled fibres and recycled plastics, with the ambition to close the loop</li> <li>Get more granularity in science-based assessments of the sustainability of attributed recycled polymers versus virgin polymers</li> <li>Secure supply of attributed recycled polymers</li> </ul>
<p><b>Creating Positive Impact for People &amp; Communities</b></p>	<p>Create positive social impact for employees and people across our value chain by providing a safe and inclusive work environment and securing responsible business practices.</p> <ul style="list-style-type: none"> <li>Continue to deliver wellbeing programmes for employees, support a positive and open safety culture across the company, and work towards reducing accidents and work-related ill health, with zero as the ultimate goal</li> <li>Continue to invest in training on inclusive leadership for managers and mentoring programmes driving gender equity and inclusiveness</li> <li>Sustain investment in Future Talent Programmes and enable world-class training and development for all our employees</li> <li>Further collaborate with our partners in the development of School Feeding Programmes to provide millions of children globally access to safe nutrition every year</li> <li>Continue to expand our projects through the Dairy Hub model<sup>11</sup> to increase income for smallholder farmers and secure a supply of locally produced quality milk</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Introduce a standardised OHS induction at all Tetra Pak sites and a global safe driving program and a travel safety program</li> <li>Ensure all voices in the company are heard and considered to enhance our culture of inclusion and diversity</li> <li>Further improve the gender balance and diversity within our organisation by, for example, increasing the number of women in senior positions</li> <li>Ensure equitable development opportunities to empower everyone at Tetra Pak through our training and mentoring initiatives</li> <li>Review and update our social sustainability strategy, supporting our overall ambition for creating positive impact</li> </ul>

- ✓ On track to meet target
- ⊖ Deviation but we have a plan/ action to get to green
- ✗ Off track to meet target

<sup>8</sup> Base materials suppliers include suppliers for paperboard, plastics, plastic films, aluminum foil, and inks.  
<sup>9</sup> Our decarbonisation efforts focus on avoiding and mitigating GHG emissions correlated to our products and company, and carbon compensation to balance unavoidable residual emissions through nature-based solutions and other initiatives.  
<sup>10</sup> Both operational and capital expenditures.  
<sup>11</sup> Through the Dairy Hub model, we are helping train smallholder farmers. Find more information on our website <https://www.tetrapak.com/en-gb/sustainability/food/food-availability/dairy-hubs>



# Sustainability Performance Highlights

**The hard work, determination, and ingenuity of our people, together with our various partners, has resulted in many high-impact sustainability achievements over the past year.**

## Food

### 30,632

farms delivered milk to food and beverage manufacturers in 18 Dairy Hub projects, contributing to sustainable value chains, increasing dairy productivity and income while providing access to knowledge and skills

Collaborated with over 5 start-ups to develop innovative solutions to improve and develop fortified and nutritious food and beverage products, and transform potential food waste into sources of nutritious food



Published a white paper on Building Resilient Food Systems, after consulting with over 114 key stakeholders

Worked on a strategic collaboration with Poka, the most comprehensive connected factory worker platform, to empower workers in food production with technology, tools, and training that can help accelerate zero waste processes

# People

1<sup>st</sup> company-wide **Mental Wellbeing Programme** launched, supporting employees worldwide with tools, trainings, support services, and external counselling

**1,630 leaders** trained through our Inclusive Leadership Training which aims to provide essential skills to create an inclusive environment

## 4%

increase in the number of women in senior positions, moving from 14% in 2020 to 18% in 2021

**Trained 3,000 leaders** and 11,500 out of 25,147 employees with our leadership training curriculum<sup>12</sup>

## 61



**million** children in 41 countries received milk or other nutritious beverages in Tetra Pak packages through **School Feeding Programmes**

Expanded scope of Gender Equity cross-company mentoring programme to whole Tetra Pak, to include a wider number of female talent and develop them to future roles

# Planet

Tested several million packages as part of a commercial technology validation in Japan on a polymer-based barrier replacing the aluminium foil layer in aseptic cartons and started testing a fiber-based barrier that is a first within food carton packages distributed under ambient conditions

## 80%

renewable electricity (own operations) achieved by doubling solar photovoltaic (PV) capacity to 5.55MW moving closer to 2030 target of 100% renewable electricity

## 36%

GHG emissions reduction in our operational footprint (Scopes 1, 2 and business travel) compared to our 2019 baseline and 27% GHG emissions reduction in Scope 1 and 2 combined compared to our 2019 baseline<sup>13</sup>

Kicked off work on pioneering land restoration programme set to restore at least **7,000 hectares over 10 years** (launched in 2022)

**Sold 17.6 billion** plant-based packages<sup>14</sup> and 10.8 billion plant-based caps. The amount of plant-based plastic used in 2021 equals to 96 kilo tonnes of CO<sub>2</sub> saved compared to fossil-based plastic<sup>15</sup>

Secured a place on CDP's prestigious 'A List' for the third year running for tackling climate change as well as acting for protecting forests, making Tetra Pak the only company in the carton packaging sector to be included in the CDP leadership band for six years in a row.



Showcased the integrated solution combining UHT 2.0 portfolio with OneStep technology and Tetra Pak® E3/Speed Hyper filling machine which reduces GHG emissions by 20%, water usage by 70% and product losses by 30%, when compared to a conventional line<sup>16</sup>

## €40 million

invested in operational and capital expenditures to support the collection and recycling of 50 billion cartons

1<sup>st</sup> product offering launched with attributed recycled polymers with Roundtable on Sustainable Biomaterials (RSB) Advanced Products certification

<sup>12</sup> Since August 2020.

<sup>13</sup> Our operational footprint reductions were driven by work done to increase the use of renewable energy in our facilities.

<sup>14</sup> Plant-based packages refer to packages made with plant-based plastic versus fossil-based plastic (external layer, lamination layer and internal layer).

<sup>15</sup> Based on climate accounting internal calculations considering 59 kilo tonnes of plant-based plastic purchased in 2021.

<sup>16</sup> Benchmark is based on a conventional indirect heating UHT milk processing line with a packaging line that doesn't use eBeam technology.

# About Us

Tetra Pak is a world leading food processing and packaging solutions company. Working closely with food and beverage manufacturers and our suppliers, we provide safe, innovative, and environmentally sound products and solutions that each day meet the needs of hundreds of millions of people in more than 160 countries. With more than 25,000 employees around the world, we believe in responsible industry leadership and a sustainable approach to business.

We are part of the Tetra Laval Group, which also includes Sidel and DeLaval, all focused on technologies for the efficient production, packaging, and distribution of food.

Our vision – “We commit to making food safe and available, everywhere” – is the aspirational goal that drives our organisation. It shapes our role and purpose in the outside world. Internally, it gives us a shared, unifying ambition. Our promise – PROTECTS WHAT’S GOOD™ – defines us and influences everything we do – not just the way we communicate, but also the way we carry out our individual roles to protect food, people, and the planet. It is our pledge to consistently deliver value through our processing and packaging solutions and services.

[➤ Please read more about the complete solutions and services we provide for food and beverage processing and packaging on our website](#)

## Our company in numbers

### Figures at January 1 2022



**25,147**  
employees



**>192 billion**  
Tetra Pak® packages sold in 2021



**€ >11.145 billion**  
net sales in 2021

**8**

Technical training centres

**6**

Customer innovation centres

**54\***

Production plants

**28**

Market companies

**94**

Sales offices

**6**

Research & Development Centres



**>200**  
Collaborating with >200 recycling facilities



**50 billion**  
packages were collected and sent for recycling



**78 billion**  
litres of product delivered

\* Production plants: packaging material converting factories 30, closures (caps) factories 4 (stand-alone), additional material strips & films 3, additional material straws factories 2 (stand-alone), processing solutions and packaging equipment production facilities 15.

# Our Approach to Sustainability

Since our inception 70 years ago, sustainability has been at the heart of our business. Our focus has always been to increase food availability and food safety, reduce food waste, and improve resource and logistics efficiency whilst protecting the planet and society. Since 1999, we have collected data and reported on energy use and GHG emissions from across the organisation on an annual basis, with our GHG accounts audited by an independent third party since 2013. We conducted our first Life Cycle Assessment (LCA) study of a beverage carton in 1986.

Our approach has always been driven by our vision, the expectations of our stakeholders, and the environmental, social, and governance (ESG) topics that are most material to our industry. Our Sustainability Strategy is an integral part of our corporate 2030 Strategy, as one of four pillars. We are supporting the UN Sustainable Development Goals (SDGs), building on our 18-year commitment to the UN Global Compact and its ten principles.

Through collaboration and strategic partnerships, we strive to maximise our impact across our value chain, leveraging our global scale and local presence.

As part of our internal sustainability transformation, we are fully embedding sustainability across all nine units of our business with an integrated governance framework and the capabilities, processes, systems, and data necessary to create a culture in which all our employees can ‘think and breathe’ sustainability with greater understanding, fulfilment, and impact.

➤ **To read more about our sustainability governance and how we integrate sustainability in our risk management processes, please see the [Securing Responsible Business Practices](#) chapter**

**Malini Mehra FRSA,**  
Chief executive,  
GLOBE International secretariat-  
and member of the Tetra Pak  
Sustainability Advisory Panel



The current context for business could not be more challenging. Just as firms began to emerge from the COVID-19 pandemic, they were hit with a perfect storm of interlocking crises from conflict and climate change, to inflation and food insecurity. Maintaining a course still guided by the SDGs and net-zero requires business leaders to hold their nerve. Tetra Pak’s systematic and holistic approach to environmental and social objectives, and its willingness to collaborate with different stakeholders across its value chain, hold it in good stead to weather the storm ahead.

# Our Stakeholders

Our business exists to serve our stakeholders, upon whom we rely to deliver on our purpose. We therefore strive to involve our key stakeholders in identifying, understanding, prioritising, and responding to material sustainability topics and concerns in an inclusive manner, and actively communicate around our decisions, actions, and performance. Continuous engagement enables us to maximise our impact around the topics that matter, and collaboration is at the heart of our approach, as we work with industry organisations, NGOs, IGOs, and multi-stakeholder initiatives around the world to raise awareness on sustainability issues, promote good practice, and support innovative projects.

[Read more about how we engage with our stakeholders on our website](#)

[Read more about our collaborations on sustainability topics here](#)

Suppliers	Internal stakeholders	Customers	End Consumers	Post Consumption stakeholders	Business Support Service Providers	Regulators/ Authorities	Local / Civil Communities
Suppliers for Packaging Material and Additional Materials	Board of Directors			Packaging Recovery Organisations	Utility Suppliers		Communities
Indirect Material Suppliers	Executive Leadership Team	Food & Beverages Producers		Packaging Material Recyclers	Transport Suppliers	Local & Regional Regulators	NGOs
Suppliers for Processing / Packaging Equipment	Management/ Administrative Employees		Consumers of Packaged Food & Beverages	Users of Recycled Materials	Facility Services Suppliers	Standard Setters	Indigenous People
Suppliers for Converting Equipment	Employees in Manufacturing	Retailers			IT Suppliers		
Technology Providers and Innovators	Service Providing Employees	Co-Packers		Waste Management Companies	Consultancy Services	Food & Packaging Industry Association	Media/Other Opinion Makers

## Our Sustainability Priorities

We regularly conduct a formal materiality assessment process to ensure we are addressing the sustainability topics of the greatest relevance, importance, and impact to our customers, our business, society, and the environment. In 2021, we worked with AccountAbility, an independent ESG advisory firm, to review the results of our 2019 materiality assessment and update topic definitions and prioritisations, as appropriate, to reflect the most current regulatory landscape, industry trends, and stakeholder expectations.

This Report details the work we are doing to address the sustainability topics that matter most to our business and our stakeholders:

[➤ Read more on our 2021 materiality assessment in the GRI Index](#)

### 2021 Materiality Matrix

The following 14 sustainability topics were prioritised based on importance to Tetra Pak’s stakeholders and potential impact to its business

#### Food

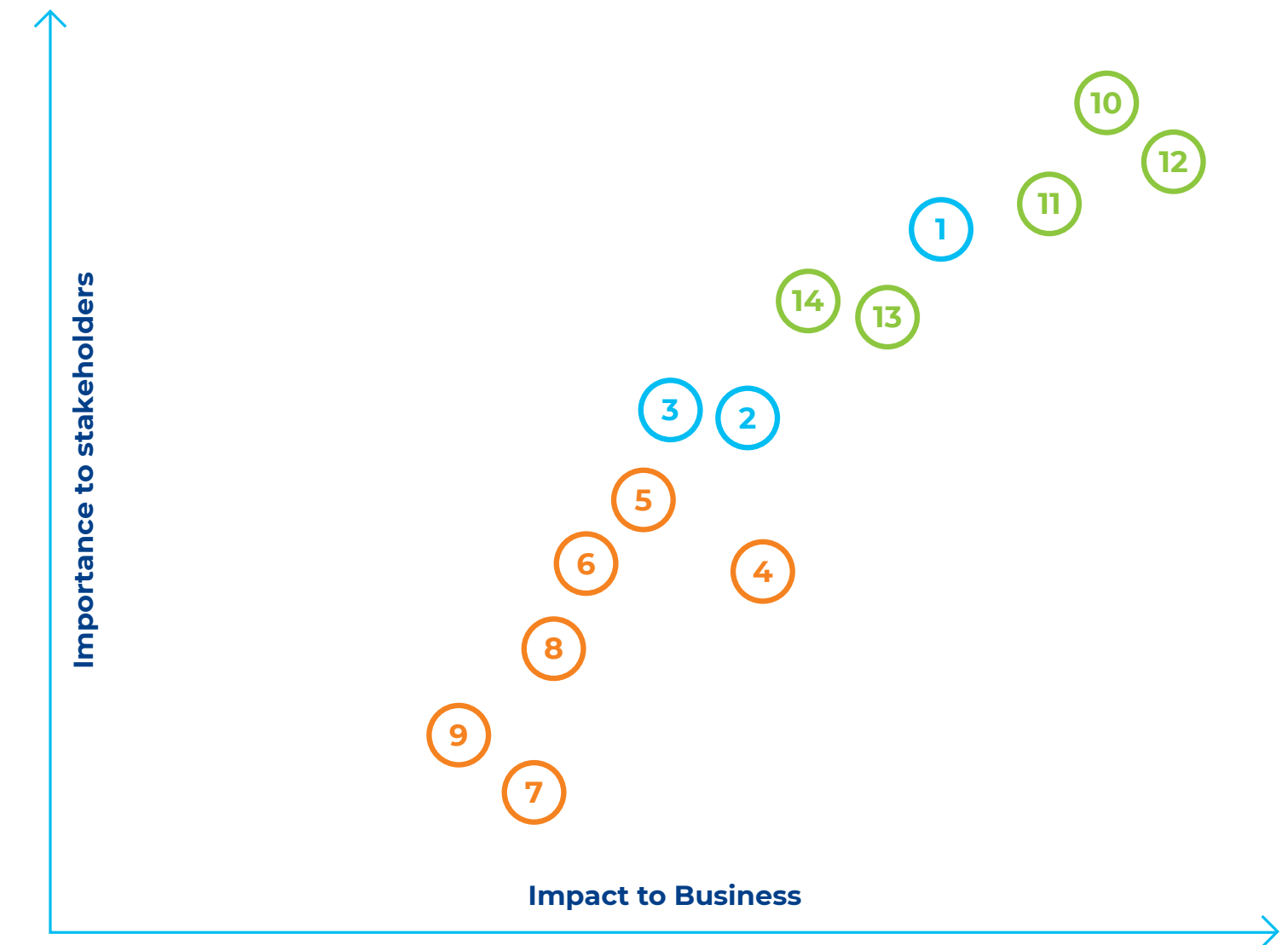
- ① *Food Safety & Quality*
- ② *Food Loss & Waste*
- ③ *Food Access, Availability & Resilience*

#### People

- ④ *Employee Health, Safety & Wellbeing*
- ⑤ *Business Ethics*
- ⑥ *Human Rights*
- ⑦ *Talent Attraction, Development & Engagement*
- ⑧ *Diversity & Inclusion*
- ⑨ *Responsible Marketing & Communications*

#### Planet

- ⑩ *Climate & Decarbonisation*
- ⑪ *Responsible Sourcing of Raw Materials*
- ⑫ *Circularity & Recycling*
- ⑬ *Biodiversity & Nature*
- ⑭ *Water Management*



# Our Focus Areas

➤ <b>Contributing to Secure, Resilient, and Sustainable Food Systems</b>	<b>16</b>
➤ <b>Acting for Nature</b>	<b>24</b>
➤ <b>Taking Action on Climate</b>	<b>34</b>
➤ <b>Driving Circular Solutions</b>	<b>46</b>
➤ <b>Creating Positive Impact for People &amp; Communities</b>	<b>56</b>
➤ <b>Securing Responsible Business Practices</b>	<b>66</b>
<hr/>	
➤ <b>About this report</b>	<b>71</b>



# Contributing to Secure, Resilient, and Sustainable Food Systems


Our current food systems<sup>18</sup> are failing to adequately and sustainably deliver the healthy diets and nutrition the world needs, as roughly 821 million people are chronically undernourished<sup>19</sup>, one out of every nine people globally are hungry, and one out of every three are overweight or obese<sup>20</sup>. Moreover, current food and land use systems generate up to 30% of global greenhouse gas (GHG) emissions<sup>21</sup> and the Food and Agriculture Organisation (FAO) estimates that one third of all food produced worldwide is not consumed because it is either lost or wasted<sup>22</sup>.

As the global population is expected to grow by more than 25% from a 2020 baseline to reach 9.9 billion by 2050<sup>23</sup>, food demand and consumption will increase dramatically, along with hidden health, environmental, and poverty costs as well as threats to food security.

Moreover, the current war between Russia and Ukraine has implications for food supply worldwide and in the region. International food and fuel prices have increased sharply since the conflict began. We are also seeing the integration of food systems globally and how dependent our supply chains are over borders. Ultimately, this affects local food prices and, consequently, access to food<sup>24</sup>.

To ensure our global food systems can sustainably meet the needs of current and future populations, we must work together to transform the way the world produces and consumes food. We are committed to making food safe and available, everywhere, by leveraging our expertise, technology, and partnerships to move the world's food systems forward.

Through our various initiatives and work around secure, resilient, and sustainable food systems, we contribute to SDGs 2, 12, and 17.

 **Find out about how we contribute to secure, resilient, and sustainable food systems: visit our Move Food Forward website**



<sup>18</sup> 'Food system' refers to the constellation of activities involved in producing, processing, transporting and consuming food.

<sup>19</sup> World Health Organisation (WHO)

<sup>20</sup> <https://globalnutritionreport.org/reports/2020-global-nutrition-report/inequalities-global-burden-malnutrition/>

<sup>21</sup> Food and Land Use Coalition (FOLU) <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>

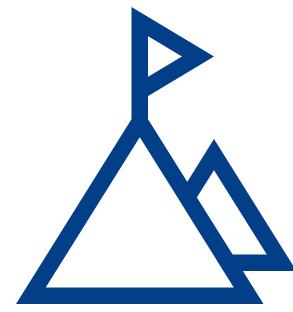
<sup>22</sup> Food loss is mainly caused by food grown not being preserved and inefficient production practices, while food waste is driven by short shelf life of food and unsustainable consumption practices.

<sup>23</sup> <https://sdg.iisd.org/news/world-population-to-reach-9-9-billion-by-2050/>

<sup>24</sup> [https://docs.wfp.org/api/documents/WFP-0000137463/download/?\\_ga=2.19937662.751236751.1652089842-1253343504.1649321802](https://docs.wfp.org/api/documents/WFP-0000137463/download/?_ga=2.19937662.751236751.1652089842-1253343504.1649321802)







## Our Achievements in 2021

We closely collaborate with farmers, consumers, governments, food and beverage manufacturers, and other stakeholders to maximise our contributions and impact on the following three food safety and sustainability imperatives of greatest urgency:

- Increase access to safe, nutritious food
- Reduce food loss & waste
- Build sustainable food value chains

### Increase Access to Safe, Nutritious Food

**We are helping food and beverage manufacturers worldwide meet the internationally leading food safety standards – now and for the future – with our expertise, packaging, equipment, and services.**

Our expertise in sterilisation technology and microbiology, combined with our hygienic equipment and robust digitised control systems, enable us to contribute to internationally leading food safety standards. Our global and cross-functional network of employees proactively monitors food safety legislations and regulatory developments so we can continue to ‘future-proof’ our products and solutions before compliance regulations emerge and evolve.

➤ **Find out more about our approach to food safety by reading our brochure**

**We are enabling secure long-term supply of locally sourced, high-quality milk by improving smallholder farmers’ productivity, market access, profitability, and livelihoods together with our partners.**

Through the Dairy Hub Model, food and beverage manufacturers can secure a long-term supply of locally produced quality milk by providing smallholder dairy farmers access to training services and cooling infrastructure technology needed to increase the productivity, availability and quality of milk, and farm profitability.

➤ **Find out more about the Dairy Hub projects in the Creating Positive Impact for People & Communities chapter**

In **West Africa**, we have partnered with food and beverage manufacturers to increase water availability, which is a crucial part of milk production, and to improve the safe transportation of milk to collection centres. Solar-powered bore holes were installed to provide water to communities, and we provided food contact safe milk collecting cans for transportation, which increase the shelf life of the product. As a result, 750 farmers in a nomadic dairy farming community in Osun State, Nigeria are increasing their yield by 3,750 litres of milk daily.



Farmers in Osun State, Nigeria

**We are exploring innovations around fortified, nutritious food and beverages with manufacturers in our Product Development Centre and Accelerator Lab.**

In **Lund, Sweden**, we are exploring innovative new ways to source nutrients such as protein more efficiently and sustainably, and create more tailored nutritional profiles in consumer products.



We started engaging with **Yelte**, a start-up that is developing plant-based drinks from Hemp seeds, a unique raw material that is resource-efficient and nutritious. We have been testing the functionality of the hempseed-based drink to maintain a high protein content without affecting the mouthfeel.

By collaborating with **Mycorena** to build a greenfield production facility for fungi fermentation towards alternative protein-based food applications, we are looking to address the challenges around food safety and security, through the exploration and advancement of innovative food sources. Alternative proteins open up significant opportunities for designing new forms of sustainable food. Along with the potential for a lower carbon footprint, there is also scope for significantly reduced land and water use, compared with traditional protein sources<sup>25</sup>.

We are also collaborating with **NuCaps**, a start-up specialising in the encapsulation procedures, known as nanoencapsulation, for nutritional and health industries. Through the collaboration, we are co-creating unique processing solutions featuring this novel nanotechnology, which encapsulates nutrients and bioactive compounds and prevents degradation during the processing and storing of foods.

<sup>25</sup> <https://mycorena.com/faq>



*We have a unique collaboration between Nucaps and Tetra Pak that enables food products with added ingredients such as omega-3 fatty oils or probiotics to be processed and still have desired benefits like long shelf life, better absorption in the gut, and this solution does not influence taste or odour in the final end-product.*

**Kim Andersen,**  
Category Leader Cheese,  
Tetra Pak

**We are fostering a culture where our people can dedicate time to creativity, innovation, and impact for the greater good around food systems.**

In 2021, graduates from our Future Talent Programme participated in the **Food Systems Game Changer Lab** organised by the Rockefeller Foundation as part of an accelerator programme within the Cohort 19 'Enabling Accessible and Affordable Nutrition'. The cohort included other companies, start-ups, research organisations, and universities, and explored holistic approaches to reduce all forms of malnutrition by 2030.



## Reduce Food Loss and Waste

**Our food processing and packaging solutions make a significant contribution to food resilience by extending the shelf-life of food and helping to strengthen local food systems.**

Our solutions are already helping to prevent food loss and waste across the value chain, from the efficiency of our processing and packaging equipment in production, to the right-sizing and functionality of our high-performance packaging at consumption. For instance, our recently developed Tetra Pak® Blender VCC vertical blender is optimised to produce cottage cheese with product loss reduction of up to 90% compared with conventional horizontal blenders<sup>26</sup>.

Our high-performance packaging helps to prevent food waste by protecting food and beverages from physical damage, heat, light, and potentially harmful bacteria. Our aseptic packaging extends the shelf life of the products without the need for added preservatives or refrigeration.

➤ **For more on our aseptic solutions: visit our website**

**We enable food and beverage manufacturers to get more out of raw materials and transform potential food waste into sources of nutritious food.**

In 2021, we continued to collaborate with Swedish start-up **EnginZyme** to explore opportunities to reduce waste streams and turn by-products from food production into added value ingredients through a technology expanding the applicability of enzymes.

We are investigating how smart enzymes could better serve the food industry to recover and reuse food production by-products. Currently, we are collaborating on a system for converting large volumes of acid whey produced from fresh cheese into added value ingredients such as fibre.

We also created a circular processing solution that enables breweries and other companies to use brewers' spent grain (BSG), a side stream of the brewing process, as an ingredient for other food applications like breads.

➤ **Find out more about the BSG solution and similar innovations in the Driving Circular Solutions chapter**

➤ **Read more about our work in food innovation: visit our website and our solutions page**

**Read more about collaborative innovation:**

➤ **Visit our website**

➤ **Visit our playlist Voices of Innovation on YouTube**

➤ **Visit our Voices of Innovation webpage**

**Dr. Karim Engelmark Cassimjee**  
CEO,  
EnginZyme



The food industry faces many sustainability challenges, especially the ability to achieve efficient and sustainable production at the same time. The cell-free biomanufacturing that we have pioneered at EnginZyme can meet this need with its broad applicability, low cost of production, short development timelines, and predictable scalability. Our collaboration with Tetra Pak is an incredibly exciting opportunity – in particular how we are exploring solutions to unlock the potential of by-products like acid whey.

<sup>26</sup> In a standard horizontal blender, 10 to 20 kilos of product are left in the blender after emptying. In the Tetra Pak® Blender VCC with a vertical design, less than 2 kilos remain in the blender after emptying.

We worked on a strategic collaboration with Poka, the most comprehensive connected factory worker platform, to empower workers in food production with technology, tools, and training that can help accelerate zero waste processes<sup>27</sup>. By providing us with a connected digital technology, the collaboration empowers workers in food production with the tools and training needed to make a step change in zero waste processes in food manufacturing plants and promote responsible consumption and production.

➤ Read more about the collaboration with Poka: visit our website

➤ Read more about our work on innovation: visit our website

“ This collaboration is part and parcel of our journey to provide access to safe food in a sustainable way, even in our own production and factory floor processes using the resources and technologies available to us.

**Roberto Franchitti,**  
Executive Vice President,  
Services & Quality,  
Tetra Pak



<sup>27</sup> Zero waste not only refers to carbon and energy emissions, but also wastage of water, raw materials, product, and time.  
<https://www.tetrapak.com/insights/cases-articles/zero-waste-in-the-factory-of-the-future>

## Build Sustainable Food Value Chains

**We are working towards full product traceability<sup>28</sup> through the entire food processing and packaging value chain to enhance the transparency, accountability, and quality control and to meet our high food safety standards, which we believe will make food systems more resilient and will contribute to less food waste.**

We are starting conversations about the contributions that food processing technologies and packaging solutions can make to build resilient food systems.

In 2021, we delivered over 1.2 billion connected packages with unique QR codes as part of our Tetra Pak® Connected Package platform<sup>29</sup>, which transforms our cartons into full-scale data carriers and digital tools to enable traceability and unique consumer interactions.

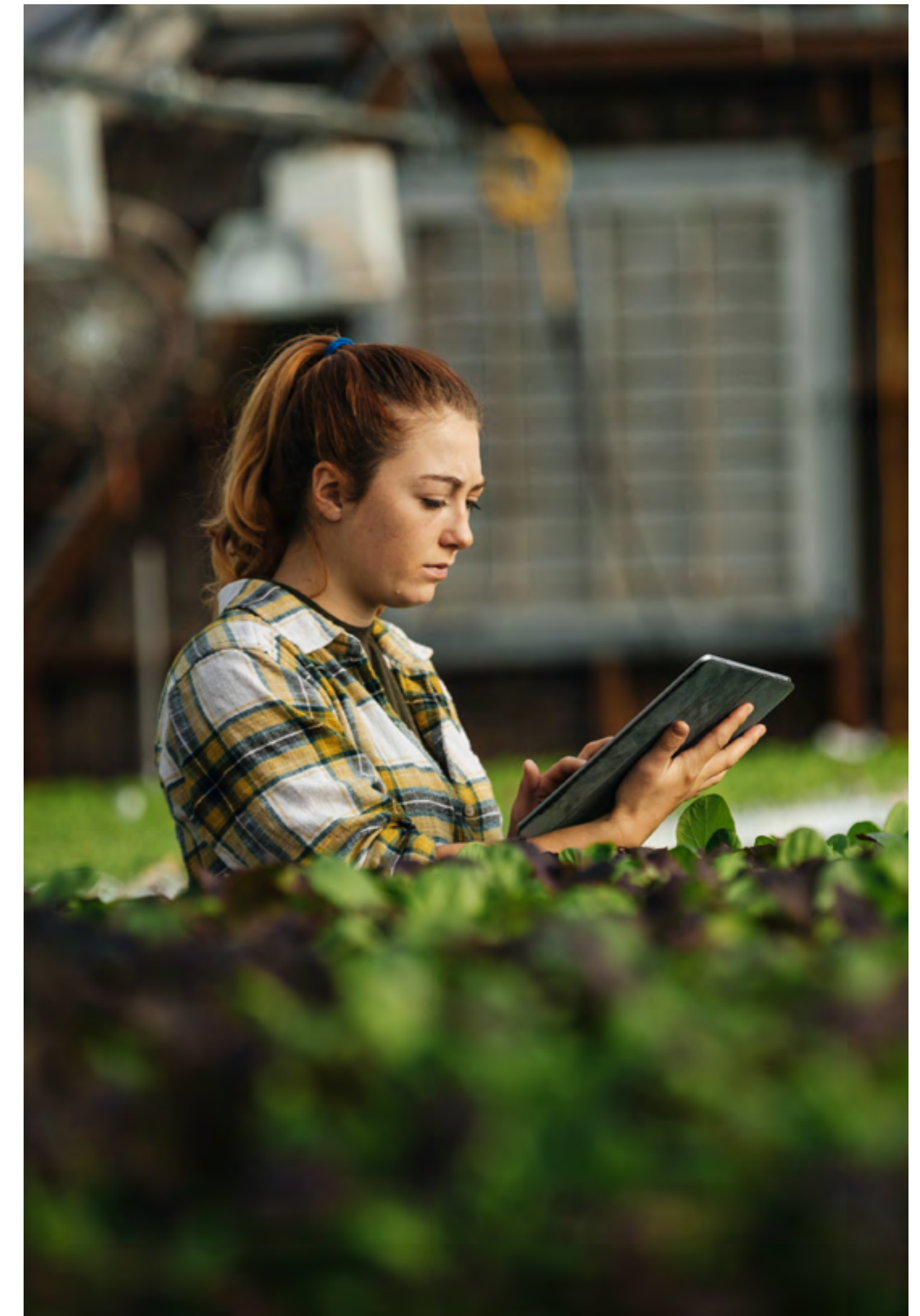
➤ **For more on the Tetra Pak® Connected Package platform: visit our website**

➤ **Read more on our traceability initiatives here**

**We believe a global, multi-stakeholder dialogue is needed to achieve new approaches to food systems improvement that are systems-based, inclusive, and collaborative. We are starting conversations about the contributions that food processing technologies and packaging solutions can make to build resilient food systems.**

At the 26<sup>th</sup> UN Climate Change Conference (COP26) in 2021, diverse stakeholders came together to explore avenues to decarbonise food systems and make them more sustainable, including a panel event that we hosted as part of the World Climate Summit. The panel focused on a value chain based approach to transforming food systems for a sustainable future. It was moderated by Dan Esty, Hillhouse Professor at Yale University, and the Chair of Tetra Pak Sustainability Advisory Panel, and featured Lars Holmquist, Tetra Pak Executive Vice President for Sustainability & Communications, Professor Johan Rockström, a leading climate scientist and Tetra Pak Sustainability Advisory Panel Member, and representatives from Oatly, the Club of Rome, and Stora Enso.

Prior to COP26, we participated in the first global UN Food Systems Summit in September 2021, which convened a multitude of stakeholders to chart a course towards transformed secure, resilient, and sustainable food systems in alignment with the UN SDGs and published a white paper on Building Resilient Food Systems<sup>30</sup> in collaboration with SYSTEMIQ Ltd, our knowledge partner, and in consultation with over 114 stakeholders.



<sup>28</sup> The concept of traceability refers to the tracking of a product throughout its production, processing, and distribution phases, from the procurement of the raw materials for its manufacture until it reaches the end customer.

<sup>29</sup> <https://www.tetrapak.com/solutions/automation/connected-package#connected-package-more-about-the-connected-package>

<sup>30</sup> [https://www.tetrapak.com/content/dam/tetrapak/publicweb/gb/en/moving-food-forward/TetraPak\\_WhitePaper\\_MovingFoodForward.pdf](https://www.tetrapak.com/content/dam/tetrapak/publicweb/gb/en/moving-food-forward/TetraPak_WhitePaper_MovingFoodForward.pdf)

## The six impact opportunities for food processing technologies and packaging solutions

We have identified six impact opportunities for food processing technologies and food packaging solutions to support the Food Systems Summit objectives, which we have outlined in our white paper.

[Read our white paper here](#)

[Read more on our journey to deliver on more circular food processing and services in the Driving Circular Solutions chapter](#)

### Our ambition

### The impact opportunities

### UN Food Systems Summit action tracks

#### Increase access to safe, nutritious food

1 Food innovation for healthy diets

2 School Feeding Programmes

#### Reduce food loss and waste

3 Minimised food loss and waste

#### Build sustainable supply chains

4 Sustainable dairy production

5 Sustainable food packaging

6 Supply chain transparency & traceability



**Action Track 1**  
Ensure access to safe and nutritious food for all



**Action Track 2**  
Shift to sustainable consumption patterns



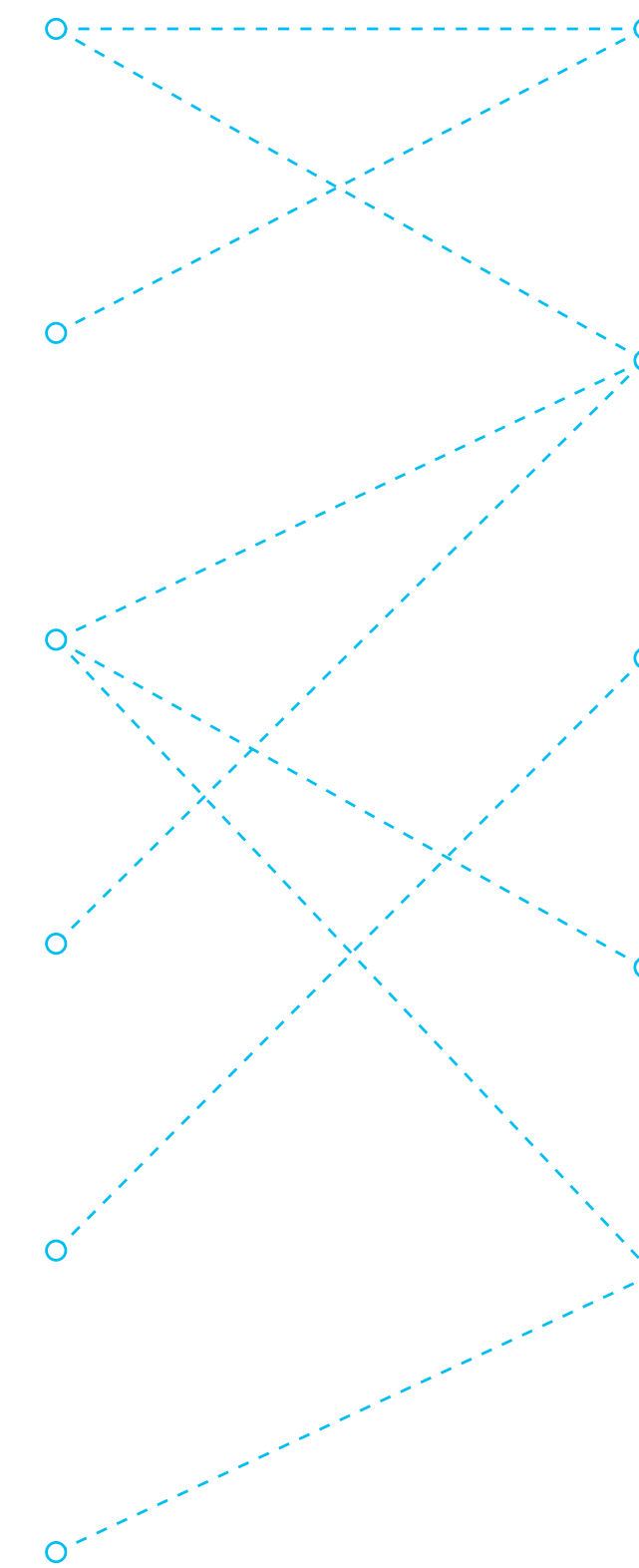
**Action Track 3**  
Boost nature-positive production



**Action Track 4**  
Advance equitable livelihoods



**Action Track 5**  
Build resilience to vulnerabilities, shocks and stress

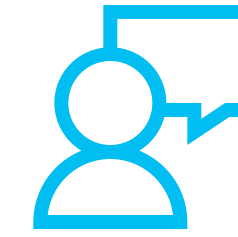




## The Way Forward

We will continue to work towards our ambition to contribute to secure, resilient, and sustainable food systems that provide access to safe, affordable, and nutritious food, and minimise food loss and food waste across our value chain. For this, we plan to act on the following steps moving forward:

Further explore packaging innovation and alternative barriers that are fully recyclable whilst protecting food safety and facilitating the attainment of high-quality standards.



Engage with others on the six impact opportunities we have identified to support the UN Food Systems Summit objectives.

Continue to work to enhance the transparency, accountability, and quality control across the entire food processing and packaging value chain.

Continue to develop innovative food processing technologies to support food and beverage manufacturers in creating nutritious foods, including sustainable ingredients, plant-based, and alternative protein substitutes. For example, together with **Tebritto**, a Swedish insect protein start-up, we are already developing capabilities to make insect protein a usable solution in food processing.

**Enhance the impact of the Dairy Hub initiative with programme expansion and growth. For instance, in the Dairy Hub project in Bangladesh, PRAN Dairy intends to train around 7,500 farmers by 2024 and increase milk production by 25% and gross income of farmers by 20% annually.**



# Acting for Nature

Biodiversity and healthy ecosystems provide us with our oxygen, regulate our weather patterns, pollinate our crops, and produce our food, feed, fibre, and essential raw materials – all of which are at serious risk if we fail to protect biodiversity and ecosystems with speed, impact, and scale.

The **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services** (IPBES) and the **Intergovernmental Panel on Climate Change** (IPCC) have determined human activity, including unsustainable sourcing and mismanagement of environmental resources, to be accelerating the impacts of climate change, the loss of biodiversity, and the depletion of raw materials – eroding the very foundations of our economies, livelihoods, food and water security, health, and quality of life, worldwide. Action to protect and restore nature will be essential to halting and reversing biodiversity loss and reducing GHG emissions to limit warming to near 1.5°C<sup>31</sup>.

Guided by our purpose “we commit to making food safe and available, everywhere, and we promise to protect what’s good: food, people, and the planet” we aim to safeguard the natural resources we rely on across our value chain to contribute to the world’s growing population access to safe and nutritious food.

The global footprint of our supply chain is considerable: we have 65 base materials suppliers<sup>32</sup> around the world and nearly 99% of the land used by our value chain comprises forests to supply our paperboard; the rest is made up of sugar cane cultivation (0.7%) for our plant-based plastics, bauxite mining areas (0.16%) for our aluminium foil,

with the remainder for other uses, including our buildings. Furthermore, in addition to water scarcity and wastewater production increasingly becoming a pressing industry concern<sup>33</sup>, up to a fifth of the food and beverage manufacturers we work with are based in high-risk or extremely high water-risk areas.

It is therefore our joint responsibility to see that biodiversity, healthy ecosystems, and responsible management practices are prioritised, championed, and delivered across our value chain. As a signatory to the **UN Global Compact**, we have prioritised responsible sourcing as a strategic objective for our business and our supply chain operations. By sharing best practices, setting ambitious targets, and reviewing progress continually, our ambition is to act for nature through responsible sourcing practices and strategic partnerships to conserve and restore biodiversity and contribute to global water resilience in our own operations and supply chain, and encourage our suppliers to drive such behaviours in their own value chains. Our supplier sustainability initiative sets out ambitious targets in this area.

Through our various initiatives and work around acting for nature, we contribute to SDGs 6, 7, 9, 12, 13, 15, and 17.



<sup>31</sup> <https://www.ipcc.ch/report/ar6/wg1/>

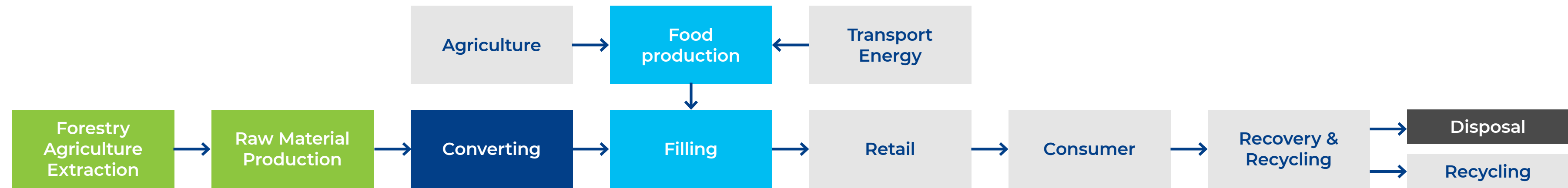
<sup>32</sup> Base materials suppliers include suppliers for paperboard, plastics, plastic films, aluminum foil, and inks.

<sup>33</sup> <https://www.tetrapak.com/en-lv/about-tetra-pak/news-and-events/newsarchive/cut-water-usage-and-carbon-emissions>





## Impact on nature – Tetra Pak’s value chain<sup>34</sup>



### Land use



### Climate impact



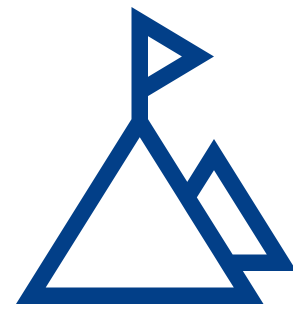
### Water use



### Packaging material end-of-life



<sup>34</sup> Graphic representation of the company's impact on nature: land, climate, water, and end-of-life. Data related to land use from results being taken from a Gabi model, climate reflects the company's GHG emissions base year 2019, and water is from value chain study from 2021.



## Our Achievements in 2021

For decades, we have led the food and beverage industry in protecting nature through our responsible sourcing practices. Although we do not own or manage any forests directly, we have applied our purchasing power to promote sustainable forest management and water stewardship, and to protect biodiversity in our extended value chain. We are applying independent certification and labelling, and working together with suppliers, NGOs, food and beverage manufacturers, and other stakeholders to promote system-wide action.

[Read more about how we ensure responsible sourcing of raw materials in the Securing Responsible Business Practices chapter](#)

## Responsible Sourcing in Action

Our “Join Us in Protecting the Planet” environmental sustainability initiative sets out twenty actions<sup>35</sup> for our base materials suppliers<sup>36</sup> to work on by 2030.

As a first call for action, we are requiring our suppliers to reduce our Scope 3 GHG (indirect) emissions by 50% by 2030 and to net-zero by 2050<sup>37</sup>. For this, we need to have alignment on the 2019 baseline emissions and require them to share an action plan that indicates how to reach the target. Once we have established the overall plan, we will be turning these into commitments.

Out of **65** base materials suppliers, **45** have joined us as partners through our “Join Us in Protecting the Planet” supplier sustainability initiative, launched in December 2020.

Together, these 45 suppliers account for **90%** of our base materials volumes and **92%**<sup>38</sup> of base materials GHG emissions.

## 20 Actions for Base Materials Suppliers

### Climate

Reduce GHG emissions by 50%	Declare CO <sub>2</sub> e emissions @ product level	Commit to the Science Based Target initiative	Join the UN Global Compact
Go to 100% renewable electricity	Maximise renewable content offering	Achieve CDP Climate A List	

### Biodiversity

Go to 100% FSC™	Continuously improve within the ASI framework	Source bio-based materials with minimum environmental footprint	Achieve a positive impact on biodiversity
Achieve CDP Water A List	Achieve CDP Forest A List	Enhance traceability in the value chain	

### Circularity

Obtain recycled content certification	Maximise recycled content	Achieve food safety approval for recycled content
Drive sorting, collection and recycling initiative	Innovate with us on circular solutions	Partner across industries on circular solutions

**Prioritised action**

<sup>35</sup> Not all actions are applicable to all suppliers (e.g., ASI is only for Aluminum foil suppliers).

<sup>36</sup> Base materials suppliers include suppliers for paperboard, plastics, plastic films, aluminum foil, and inks.

<sup>37</sup> From a 2019 baseline.

<sup>38</sup> Methodology: we count 100% of the available emissions for all base materials suppliers and compare what each supplier contributes to the total percentage of emissions to determine the individual suppliers' percentage.

**Our Supplier Sustainability Award rewards our best performing base materials suppliers in each of the three pillars of our “Join Us in Protecting the Planet” supplier sustainability initiative – Climate, Biodiversity, and Circularity.**

#### 2021 Award for best Climate Action Plan: BillerudKorsnäs

- Lowest GHG emissions for the products provided (below 0.3 CO<sub>2</sub>e/t of material)
- Submitted the most ambitious climate action plan (55% reduction by 2030)
- Climate action plan approved by the Science Based Targets Initiative (SBTi)

➤ **Please read more about this in BillerudKorsnäs’ press release here**

#### 2021 Award for best Circular Solution: Stora Enso

- Collaboration with Tetra Pak at Stora Enso’s Ostrołęka paper mill in Poland
- Lead to the current construction of a 50.000 tons recycling hub allowing to recover all materials included in cartons -wood fibres, plastics, and aluminium- for an entire region

➤ **Please read more about this in Stora Enso’s press release here**

#### 2021 Award for best Positive Impact on Biodiversity: Klabin

- Restoring and protecting habitats and saving red list species
- Identified areas of high biodiversity value. In Klabin’s Natural Heritage Reserves in Santa Catarina 600 species of flora and 75 species of fauna have been identified and are being tracked

➤ **Please read more about this in Klabin’s press release (Portuguese) here**

**Cristiano Teixeira**  
Managing Director,  
Klabin



It is an honour for Klabin to be recognised by Tetra Pak as the company with ‘Best Positive Impact on Biodiversity.’ The partnership between the two companies has lasted for almost four decades and reflects the mutual commitment to making environmental preservation and conservation a strategic pillar in business. The relationship we have with Tetra Pak drives us towards collaborative innovation to deliver increasingly safe, renewable, and recyclable packaging. We engage with and participate in meetings organised by Tetra Pak which involve excellent discussions and valuable reflection on responsible products and the construction of a sustainable future. We believe that collaborative action strengthens the history we are building together.

**Our Responsible Sourcing Programme is designed to build a financially robust, compliant, and resilient supplier base that aligns to our sustainability priorities and long-term goals.**

Together with our Supplier Code of Conduct, we have adopted the EcoVadis and Sedex methodologies to consistently identify, monitor, and manage social, environmental, and ethical supply chain risks, and compliance requirements.



**On average, 70% of our carton package is paperboard. In 2021, we sourced 2.17 million tonnes of paperboard and we are committed to ensuring that the wood fibre in our paper board is sourced from sustainably managed and deforestation-free<sup>39</sup> areas. To this effect, in 2021 we continued to ensure that 100% of the paperboard in our packages came from Forest Stewardship Council™ (FSC™)<sup>40</sup> certified forests and other controlled sources<sup>41</sup>.**

We launched the world's first FSC™-certified carton packaging in 2007. In 2020, we extended FSC™ Chain of Custody (CoC) coverage to include our paper straws and achieved the possibility to provide 100% of our packaging material as FSC™-certified to our food and beverage customers.

The FSC™ Mix label we currently use allows using a mixture of materials from FSC™-Forest Management certified forests (at least 70%), and/or FSC™ controlled wood. While controlled wood is not from FSC™ certified forests, it mitigates the risk of the material originating from unacceptable sources<sup>42</sup>. We are committed to decreasing the amount of controlled wood in our products and source 100% FSC™ forest management certified paperboard by 2030, in line with the global FSC™ strategy.

We are also committed to ensuring traceability of the wood fibres contained in our packages and we currently maintain full traceability down to processing facilities that produce the paperboard. All our

suppliers and facilities maintain FSC™ CoC certification to guarantee that the paperboard in our packages comes from FSC™ certified forests and other controlled sources. We also require our suppliers to report annually on the tree species, certification status, and country and area of origin of the wood fibre used in the paperboard supplied to us.

For plant-based plastics, we were the first in the food and beverage industry to require Bonsucro CoC certification, allowing for traceability to their sugarcane origins. Since 2020, 100% of our products made from plant-based plastics are delivered to our customers as Bonsucro certified and hence may carry the Bonsucro label.

In 2021, 99.56% of our aluminium volume was delivered by suppliers certified by the Aluminium Stewardship Initiative (ASI) Performance Standard, which addresses GHG emissions, water use, biodiversity, human and labour rights, and OHS, and we were recertified without any non-conformances.

We were the first company in the food and beverage packaging industry to be awarded the Roundtable on Sustainable Biomaterials (RSB) Advanced Products certification. Two of our production sites in Europe – our packaging material factory in **Budaörs, Hungary** and our additional material factory in **Châteaubriant, France** – have been certified since 2020 to produce packaging material and additional materials with attributed recycled polymers certified to the RSB Chain of Custody mass balance attribution method.

<sup>39</sup> Deforestation-free areas are areas where there has been no loss of natural forest as a result of: i) conversion to agriculture or other non-forest land use; ii) conversion to a tree plantation; or iii) severe and sustained degradation. Source: Accountability Framework Initiative.

<sup>40</sup> The FSC license code for Tetra Pak is FSC™ C014047

<sup>41</sup> Controlled sources are FSC controlled wood. This wood originates from low-risk sources which exclude illegally harvested wood, wood harvested in violation of traditional and human rights, wood harvested in forests in which high conservation values are threatened by management activities, wood harvested in forests being converted to plantations or non-forest use and wood from forests in which genetically modified trees are planted. Controlled wood can make up a maximum of 30% of FSC MIX certified wood fibre. More information: <https://fsc.org/en/controlled-wood-FSC-MIX>

<sup>42</sup> According to FSC Requirements for Sourcing FSC Controlled Wood, five unacceptable sources are: illegally harvested wood; wood harvested in violation of traditional and human rights; wood from forests in which high conservation values are threatened by management activities; wood from forests being converted to plantations or non-forest use; and wood from forests in which genetically modified trees are planted. More information: <https://fsc.org/en/chain-of-custody-certification#controlled-wood>

In addition, our packaging material factory in **Queretaro** and additional materials factory in **Mexicali**, both in **Mexico** are certified since October 2021 by the International Sustainability & Carbon Certification (ISCC) PLUS system. Similar to RSB, ISCC PLUS enables a third-party chain of custody attribution method to validate on-product environmental claims.

Both ISCC PLUS and RSB rely on mass balance certification for attributed recycled polymers, with annual third-party verification of the integrity of the respective chain of custody. Certification to ISCC PLUS and RSB enable companies sourcing attributed recycled polymer to credibly demonstrate their support for the circular economy and to use the certificate as an on-pack label.

**Through our supply chain intelligence project, we have conducted a comprehensive assessment of our sugarcane value chain.**

This was done in collaboration with two local partners in **Brazil**: our plant-based plastics supplier **Braskem** and **Preferred by Nature**<sup>43</sup>, a non-profit organisation that supports better land management and business practices through sustainability certification. This project enabled us to gain more visibility into supplier demographics and practices, as well as mitigate potential risks.

<sup>43</sup> <https://preferredbynature.org/>

We have drafted our own procedure for responsible sourcing of plant-based plastics with enhanced requirements by including the data and knowledge acquired through the Supply Chain Intelligence Project. We are working with Braskem to update its responsible sourcing practices based on our combined learnings. We are also conducting supply chain intelligence projects with other base materials suppliers to expand our impact and enhance our transparency on a larger scale.

Despite the global supply chain disruptions that followed COVID-19 in 2021, we were able to continue driving sustainability progress with our suppliers and maintain our responsible management practices.

Our employees stepped up and adapted to virtual audits to ensure our responsible sourcing procedures were not compromised and our sustainability objectives stayed on track. We reviewed compliance to responsible sourcing procedures of our own sites as well as those of our suppliers, by using tools such as the **Sedex Members Ethical Trade Audit (SMETA)**.

Moving forward, we plan to apply our learnings from the pandemic about the value of virtual audits to implement hybrid ways of working in our responsible sourcing procedures with greater efficiency, wider reach, and impact wherever possible.

**Jorge Soto**  
Sustainable Development Director,  
Braskem



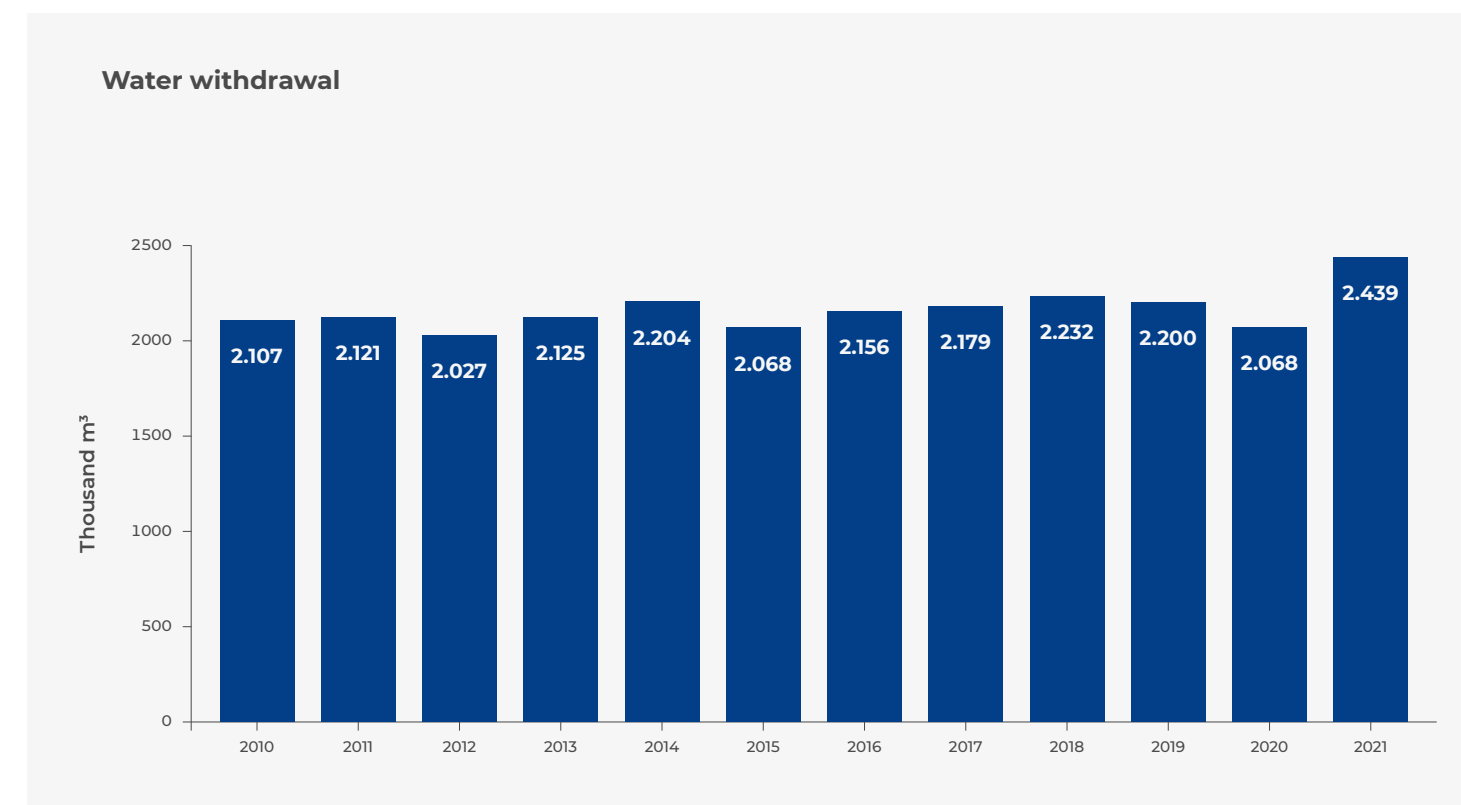
Our long-term relationship with Tetra Pak has yielded mutual benefits, including alignment on responsibly sourced procedures, clear certification standards used, and continuously sharing best practices in our sourcing process, making these more transparent and improving our own responsible procedures. We are now able to clearly communicate our path to a more sustainable value chain, mitigating risks together with Tetra Pak, and better position our biobased product and its sources.

## Water Management

**We have prioritised water consumption reduction with our water stewardship strategy as part of our Strategy 2030.**

In 2021, we created a new corporate Water Management Procedure for our operations, which will be launched in 2022 and rolled out to all our sites.

This procedure aims to reduce our exposure to water-related risks and bring company-wide attention to the importance of reducing our water consumption and impact.



Total water withdrawal and total water discharge both increased in 2021, due to the introduction of a new cooling system in our converting factory in **Sunne, Sweden**. The system uses surface water from a nearby lake for production cooling, after which the water is returned to the same lake. As a result, the net water consumption is not significantly affected.

**As part of our 2030 Strategy, we are working to reduce the water consumption of our best practice food processing lines by 50% by 2030.**

We have showcased a new UHT 2.0 integrated solution with OneStep technology and Tetra Pak® E3/Speed Hyper filling equipment, which improves water and steam consumption rates as well as wastewater production and the resulting removal costs for dairy manufacturers. Adding a Tetra Pak® Water Filtering Station equipment to Tetra Pak® E3/Speed Hyper filling equipment can recover 5,500 litres of water per filling machine running hour, further enhancing water use reduction opportunities.

In 2021, we also launched the new **Tetra Pak® Air Jet Cleaning system for powder**, which reduces product loss by as much as 50 litres per 2,000-litre batch. Compared to a wet CIP (clean-in-place) it also eliminates water and detergents use from the process, saving 10m³ at 70°C of water per cleaning cycle. This new system represents the fastest dry-cleaning technology in the industry, meaning it significantly reduces operational downtime required for cleaning, leading to improved production rates and operational cost savings<sup>44</sup>.

Our team worked with the industry leader in Liquid Dairy Products, **Dairy Plus**, in **Thailand**, to develop a three-phase plan to reduce water consumption in their factory operations. This was a critical need of the customer to enable the expansion of production capacity required to meet growing consumer demands.

The company's wastewater treatment plant was operating at 75% capacity in Q3 of 2020 and would have become a bottleneck due to additional wastewater treatment needed for the factory expansion. Together with Dairy Plus, our team prepared a prioritised set of actions to reduce water consumption in all factory operations and began to deploy them in phases.

The results from the first phase, which ended in September 2021, indicated water savings of 400 tonnes per day, equivalent to saving one Olympic size swimming pool per week. The overall utilisation of the wastewater treatment facility was reduced from 75% to 60%, alleviating capacity constraints and establishing improved operational efficiencies for future production. The next phase of the project will focus on reducing product loss during product processing, which will help reduce operational costs as well as water consumption.



Wastewater treatment plant at Dairy Plus, Thailand

<sup>44</sup>In infant formula production, for example, with two cleaning cycles a day, the annual savings in the cost of operators amount to up to around €50,000 depending on the level of salaries.



The Araucaria Conservation Programme, Brazil

## Ecosystem Restoration

**We focused on a nature-based restoration project to promote biodiversity, ecosystem regeneration, wellbeing of local communities, and reduced climate impact and deforestation.**

According to the **UN's second Global Land Outlook**, conserving, restoring, and using our land resources sustainably is a global imperative. Land is the operative link between biodiversity loss and climate change. Thus, restoring land is a priority to meaningfully tackle these intertwined global challenges<sup>45</sup>. In response to the Global Land Outlook's findings and the **United Nations Decade on Ecosystem Restoration**, in 2022 we launched the carton packaging industry's first "nature-based" restoration project – the Araucaria Conservation Programme, a pioneering land restoration initiative in the Atlantic Forest in **Brazil**, one of the richest biomes and the second most endangered in the world.

The Programme was developed in collaboration with **Apremavi**, a Brazilian NGO specialising in conservation and restoration projects since 1987 and is intended to restore at least 7,000 hectares – equivalent to 9,800 football pitches – by 2030, to protect biodiversity in the region and generate other positive economic and social benefits for local communities.

<sup>45</sup> United Nations Convention to Combat Desertification, 2022. The Global Land Outlook, second edition. [https://www.unccd.int/sites/default/files/2022-04/UNCCD\\_GLO2\\_low-res\\_2.pdf](https://www.unccd.int/sites/default/files/2022-04/UNCCD_GLO2_low-res_2.pdf)

**Miriam Prochnow**  
Counselor and Co-Founder,  
Apremavi



Among the proposed methodologies are the planting of native seedlings, the ecological enrichment of secondary forests and natural regeneration. In the long run, the restored areas will be integrated into ecological corridors, contributing to reducing pressure on endangered animals such as the purple-breasted parrot and the pampas deer. These actions are fundamental for the protection of biodiversity, the restoration of soil quality and the maintenance of water availability in the region.

In addition to a pilot restoring 80 hectares, the project's first year will focus on mapping potential areas for restoration. After the validation of this initial phase, the model will be replicated on other rural properties over ten years across 7,000 hectares of the Atlantic Forest. We will also certify a much broader territory under international voluntary carbon and biodiversity standards<sup>46</sup>. The certification will measure carbon sequestration, meaning the project will play a key role in balancing residual, last mile, emissions and help Tetra Pak's commitment to achieve net-zero GHG emissions in its operations by 2030. The aim is for this territory to reach up to 13.7 million hectares and encourage other organisations to join the initiative.

[Read more about this initiative: visit our website](#)

*This initiative is our response to the United Nations challenge to make this the decade of ecosystem restoration. We are thrilled to be a lead partner of such a pioneering project, connecting a range of stakeholders and merging environmental restoration with carbon capture to help mitigate climate change and recover biodiversity.*

**Julian Fox,**  
Director Nature Programmes,  
Tetra Pak



<sup>46</sup> Certification of the project to the [Verra](#) VCS and CCB standards will follow the same approach as [Conservador da Mantiqueira](#).

The Araucaria Conservation Programme, Brazil





## The Way Forward

We will continue to work towards our ambition to act for nature through responsible sourcing practices and strategic partnerships to conserve and restore biodiversity, mitigate and adapt to climate change, and contribute to global water resilience. For this, we plan to act on the following steps moving forward:

Conclude a full value chain analysis on water in 2022 that will provide us with a comprehensive data set for water across our value chain and enable us to start reporting to CDP's water disclosures in 2023.



Contribute to the sustainability of local water-resources, as a private sector member of the **Alliance for Water Stewardship**, through the adoption and promotion of a universal framework for the sustainable use of water that drives and rewards good water stewardship performance.

Join the CDP Nature Positive Challenge and Disclosure on Landscapes and Jurisdictional Approaches.

Join the **Sustainable Procurement Pledge (SPP)**<sup>47</sup> and enhance sector collaboration by actively communicating our commitments and progress to our business partners and suppliers as a SPP Champion while educating our procurement teams on best practices.

<sup>47</sup> The Sustainable Procurement Pledge (SPP) is an international bottom-up and non-profit organisation for procurement professionals, academics, and practitioners, driving awareness and knowledge of responsible sourcing practices and empowering people in procurement.

<sup>48</sup> The SBTN aims to transform economic systems and protect the global commons – our air, water, land, biodiversity, and oceans – by setting science-based targets for the whole Earth system by 2025.

Joined the **Corporate Engagement Program of the Science Based Targets Network (SBTN)**<sup>48</sup> in early 2022 to support the network in developing science-based targets for nature through methods, tools, and guidance to help companies transform their businesses. We commit to set company targets on Nature by end of 2022.

Continue to work with our base materials suppliers as part of the “Join Us in Protecting the Planet” Environmental Sustainability Initiative to advance our twenty goals for 2030.



Published a Procedure for responsible sourcing of renewable polymers in 2022, outlining our requirements specifically applicable to renewable polymers sourcing. We expect existing and future suppliers of renewable polymers to comply with the procedure, and to meet Tetra Pak's commitments for sustainable sourcing of renewable polymers as stated.

Further work on ecosystem restoration and nature-based solution projects to address global biodiversity and ecosystems degradation and focus on the social implications of nature-based solutions, such as landowner compensation, land rights of local communities and indigenous peoples.

 **To read the procedure: visit our website**

# Taking Action on Climate

The **IPCC Sixth Assessment Report** has reaffirmed the linkage of human-induced climate change to negative impacts on nature and people, including rising temperatures, sea level change, and more frequent and intense extreme weather events<sup>49</sup>. In 2021, COP26 launched an urgent call-to-action for companies to set GHG emissions reduction targets in line with a 1.5°C warming limit.

As food systems are responsible for about a third of global anthropogenic GHG emissions<sup>50</sup>, actors, like us, who operate in the global food supply chain system must take action to mitigate their – and their respective value chains' – negative climate impact. We also have a responsibility to consumers, who have cited global warming as a top concern<sup>51</sup>.

To achieve our ambition to lead the sustainability transformation, we take seriously our responsibility to work through our commitments, solutions, and partnerships to help reduce negative environmental

impacts. It is for these reasons that we have made our own operational and value chain net-zero GHG emissions commitments<sup>52</sup> and why we are actively pursuing and initiating collective actions along our value chain that can create a sustainable tomorrow without ever compromising on food safety or quality. The actions include both reduction and mitigation of emissions in our own operations, our supply chain, and from the use of our products, and carbon compensation to balance unavoidable residual emissions through nature-based solutions and other initiatives.

Through our various initiatives and work around acting on climate, we contribute to SDGs 7, 12, 13, 15, and 17.



Tetra Pak, Rubiera, Italy.  
Drone image provided by Baywa,re

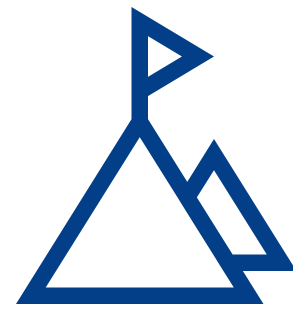
<sup>49</sup> IPCC Sixth Assessment Report, Summary for Policymakers (SPM).

<sup>50</sup> <http://www.fao.org/news/story/en/item/1379373/icode/>

<sup>51</sup> 78% of respondents cited global warming in their top two concerns in the most recent Tetra Pak Index report 2021.

<https://www.tetrapak.com/content/dam/tetrapak/publicweb/gb/en/insights/documents/tetrapak-index-report-2021.pdf>

<sup>52</sup> Our net-zero trajectory builds on a combination of reduction and mitigation of emissions in our own operations, our supply chain and from the use of our products, and compensation of residual emissions via our nature conservation programme.



## Our Achievements in 2021

### Advancing Our Decarbonisation Performance and Commitments

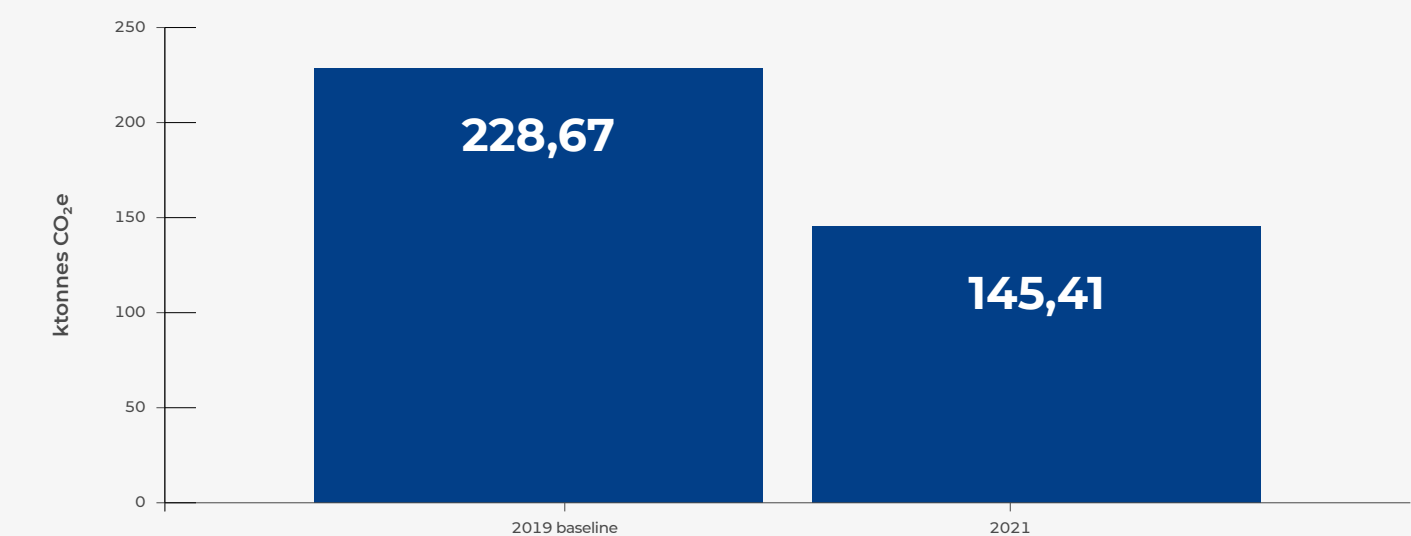
**Through our various decarbonisation initiatives, we reduced our GHG emissions operational footprint (Scopes 1, 2 and business travel) by 36% compared to our 2019 baseline in 2021.**

For decades, we have led the food processing and packaging solutions industry in developing innovative products and solutions that are energy efficient. In 2010, we set out to decouple economic growth from GHG emissions and to cap, by 2020, emissions at 2010 levels despite growth. We outperformed this 2020 climate goal decreasing emissions across Scopes 1, 2 and 3<sup>53</sup> by 19%. At the same time, over the ten year period, we reduced direct and indirect emissions from our operations (Scopes 1 and 2) by 70%.

After achieving our targets in 2020, we raised our ambitions and strengthened our public commitments. We have committed to achieving net-zero GHG emissions in our operations by 2030 and have set a net-zero GHG emissions ambition across the value chain by 2050. Our revised SBTi-approved target across all Scopes 1, 2 and 3 involves reaching 46% GHG reduction across our value chain by 2030, compared to 2019, in line with a 1.5°C pathway<sup>54</sup>. We have since enhanced our industry collaboration and continue to be recognised by the industry for our climate leadership, as demonstrated by our ability to maintain our position on the CDP leadership band for the sixth year in a row.

In 2021, we have reduced our combined Scopes 1 and 2 GHG emissions by 27%, driven by the work done to increase the use of renewable energy in our facilities. Our operational footprint (Scopes 1, 2 and business travel) was reduced by 36% compared to our 2019 baseline. However, we have more work to do to reduce the overall GHG emissions (Scopes 1, 2 and 3), which were flat in 2021 compared to 2019 due to the increase in sales of equipment. To tackle this, we plan to continue to develop more efficient packaging and processing equipment and lines as well as related services. This is supported by our ambition to reduce the carbon footprint of our best practice processing lines by 50% by 2030 compared to 2019.

#### Tetra Pak operations Scope 1, 2 and business travel



**For detailed information on our environmental performance: visit our website**

<sup>53</sup> Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain. Carbon trust: <https://www.carbontrust.com/resources/briefing-what-are-scope-3-emissions>

<sup>54</sup> Reductions only, no offsets included in the calculation.

In the lead up to COP26, we signed up to and were accepted by **Business Ambition for 1.5°C** campaign<sup>55</sup>, the world's largest and fastest-growing group of companies that are aligning with 1.5°C and helping to halve global emissions by 2030. As part of this commitment, we are focusing on how to achieve net-zero GHG emissions as defined by the new Net-Zero Standard released in November 2021 by the SBTi. Amongst other things, the standard requires that emissions be reduced by at least 90% by 2050 and that any hard to reduce residual emissions should be balanced – not with offsets – but with carbon uptake or removals<sup>56</sup>. Similarly, we started supporting the **Race to Zero Campaign** to work towards a healthy, resilient, zero carbon future. We joined hundreds of other companies in what is the largest ever alliance committed to decarbonisation.

In 2021, we also started engaging in the **Alliance of CEO Climate Leaders** from the World Economic Forum (WEF) to support the Paris Agreement. The Alliance is the only CEO-led climate action initiative, enabling the group to play an influential role within the business community and in engagement with policy makers. As members of the Alliance, we restated our commitment to following a 1.5°C pathway<sup>57</sup>, reducing emissions and reporting progress on this publicly through CDP, among others.

We have maintained our position on the **CDP leadership band** for the sixth year in a row, as one of the roughly 45 companies that achieved a 'Double A' score<sup>58</sup>, out of nearly 12,000 that were scored based on data submitted through CDP's questionnaires in 2021.

<sup>55</sup> <https://sciencebasedtargets.org/resources/files/status-report-Business-Ambition-for-1-5C-campaign.pdf>

<sup>56</sup> The Araucaria Conservation Programme aims at creating carbon sinks to be used against our own operations' net-zero target. The first plantation started early 2022, which means that we can expect the first carbon "effects" to be in place in the coming months.

<sup>57</sup> <https://sciencebasedtargets.org/how-it-works>

<sup>58</sup> We received an A in CDP's Climate and Forest questionnaires in 2021.

We also join local coalitions and collaborations to further contribute to the acceleration of GHG reductions, such as joining **Net-Zero Pakistan for 2050** in August 2021. This is an official Accelerator of the UN-backed Race to Zero campaign and national collaboration between the private sector, public institutions, and industry experts.

Our largest global customer, the **Yili Group** in **China**, has named us as a key partner in its plans to achieve carbon neutrality by 2050. Yili became the first food company in China to commit to carbon neutrality in response to the country's "30-60" decarbonisation goals. Along with other suppliers, we were designated as 'Low Carbon Pioneers' in Yili's global supply chain. We will support the group in its carbon neutrality ambition with our end-to-end sustainability solutions and best practices.

**Alberto Carrillo Pineda**  
Managing Director,  
Science Based Targets at CDP



We congratulate Tetra Pak on setting science-based targets consistent with limiting warming to 1.5°C, the most ambitious goal of the Paris Agreement. By setting ambitious science-based targets grounded in climate science, Tetra Pak is taking action to prevent the most damaging effects of climate change.

**Dan Esty**  
Hillhouse Professor at Yale University  
and Chair of the Tetra Pak  
Sustainability Advisory Panel



Mitigating climate change requires a multi-faceted approach to greenhouse gas emissions control with broad engagement from all sectors. For companies with net-zero emission ambitions, such as Tetra Pak, this means taking a value-chain-wide approach and forming partnerships with suppliers, customers, and other stakeholders to drive innovation, share best practices, and push for ramped-up action by all.

**Maxfield Weiss**  
Executive Director,  
CDP Europe



We need all companies to take urgent action and align their entire value chain with our planet's natural limits. Tetra Pak is one of just 18 companies around the world to earn a place on CDP's A Lists for climate change and forests in 2021. This small cohort of companies are playing their part in achieving a net-zero emissions, nature-positive world

## Our Value Chain Approach to Decarbonisation

Our decarbonisation strategy is centred around the four key elements of our value chain: sourcing and transportation of our raw materials, our operations, the equipment used in food and beverage manufacturers' operations, and the end-of-life management of our packages.

In 2021, we continued our work with the 45 base materials suppliers<sup>59</sup> that joined our "Join Us in Protecting the Planet" initiative in 2020. These suppliers account for 92% of base materials GHG emissions. Out of the 20 actions for 2030 of the initiative, the prioritised action is for our base materials suppliers to reduce their GHG emissions by 50% by 2030 versus a 2019 base line.

Different raw materials have varying environmental footprints. As such, increasing the share of paperboard and replacing fossil-based plastics with plant-based plastics in our packages can lower their environmental footprint. Our Carbon Trust verified numbers for plant-based packages support this across the portfolio where plant-based plastics have been applied. In 2021 alone, the amount of plant-based plastic used by Tetra Pak resulted in 96 kilo tonnes of CO<sub>2</sub> saved compared to the amount of CO<sub>2</sub> which would have been emitted if using fossil-based plastic<sup>60</sup>. Another example is our secondary packaging where we have developed a protective film that comprises 50% post-consumer recycled plastic<sup>61</sup>. Using this film instead of a fossil-based film reduces CO<sub>2</sub> emissions by 38%<sup>62</sup>.

**Read more on our Join Us in Protecting the Planet initiative and results in the Acting on Nature chapter**

<sup>59</sup> Base materials suppliers include suppliers for paperboard, plastics, plastic films, aluminum foil, and inks.

<sup>60</sup> Based on climate accounting internal calculations considering 59199 tonnes of plant-based plastic purchased in 2021. To calculate the avoided emissions number, we use a third party validated emission factor for the plant-based polymers.

<sup>61</sup> Material that is made from the items that consumers have used.

<sup>62</sup> Based on results from life cycle assessment done using the SW tool e-DEA\* eliPack, software of Elipso (trade association).



*As of April 2021, the initiative and, specifically, the GHG emissions action plan, will be part of the supplier performance evaluation desired state for our base materials suppliers. We have also engaged with our colleagues in Supplier Management to broaden engagement beyond our base materials suppliers. There is so much more that procurement teams can do with our supply partners to drive the required transformation.*

**Anke Hampel,**  
Director Innovation & Sustainability,  
Tetra Pak

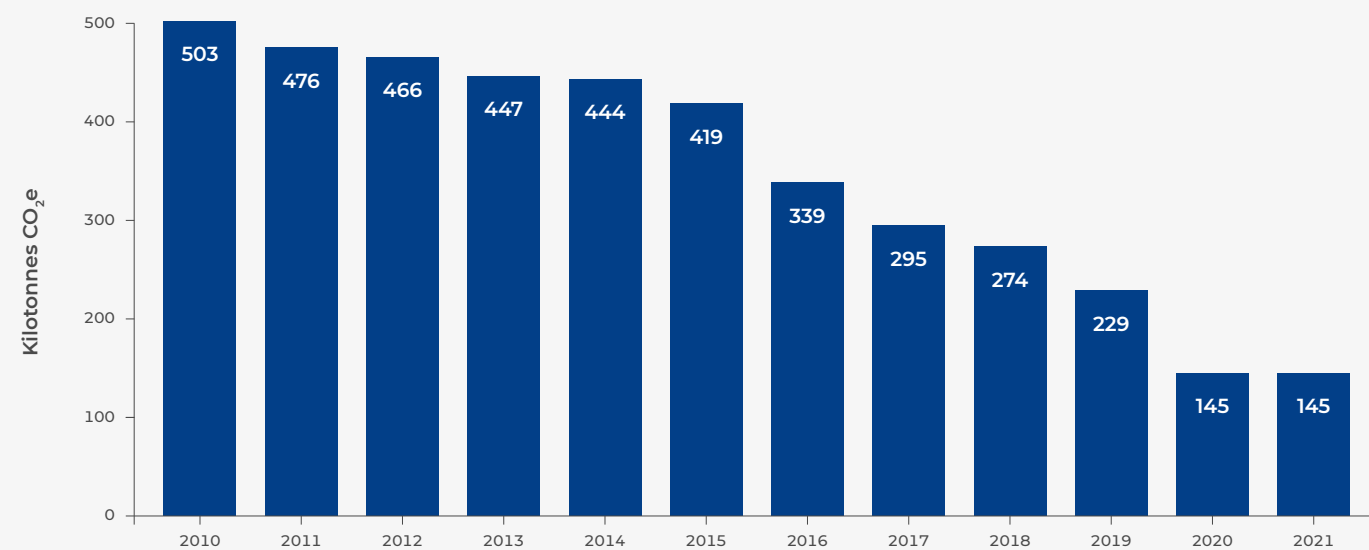
We completed a 15-month commercial technology validation of a polymer-based barrier replacing the aluminium foil layer, which plays a critical role in ensuring food safety in aseptic packages. Even though it is thinner than a human hair, the aluminium foil layer contributes to a third of the GHG emissions linked to the base materials we use. With a view to reducing this climate impact, the commercial technology validation was conducted in **Japan** starting late 2020 using a polymer-based barrier to replace the aluminium foil layer.

The validation helped to understand the value chain implications of the change, and to quantify the carbon footprint reduction. It also confirmed adequate oxygen protection for vegetable juice, while enabling increased recycling rates in a country where recyclers favour aluminium-free cartons. Incorporating these learnings, we are now

testing a new fibre-based barrier, in close collaboration with some food and beverage manufacturers. Early results suggest that the package with a fibre-based barrier will offer substantial CO<sub>2</sub> reduction when compared to traditional aseptic cartons<sup>63</sup>, together with comparable shelf life and food protection properties<sup>64</sup>. We believe this development will therefore act as a breakthrough in reducing climate impact.

➔ **Read more on the fibre-based barrier in the Driving Circular Solutions chapter**

### Our Operational GHG Emissions (Scopes 1, 2 and business travel)



\* 2019 change in accounting practise

As a result of these efforts, we have earned a place as a leading company on CDP’s 2021 Supplier Engagement Leader board for effectively taking action to engage our suppliers on the challenges associated with climate change and to measure and reduce climate risk within our supply chain.

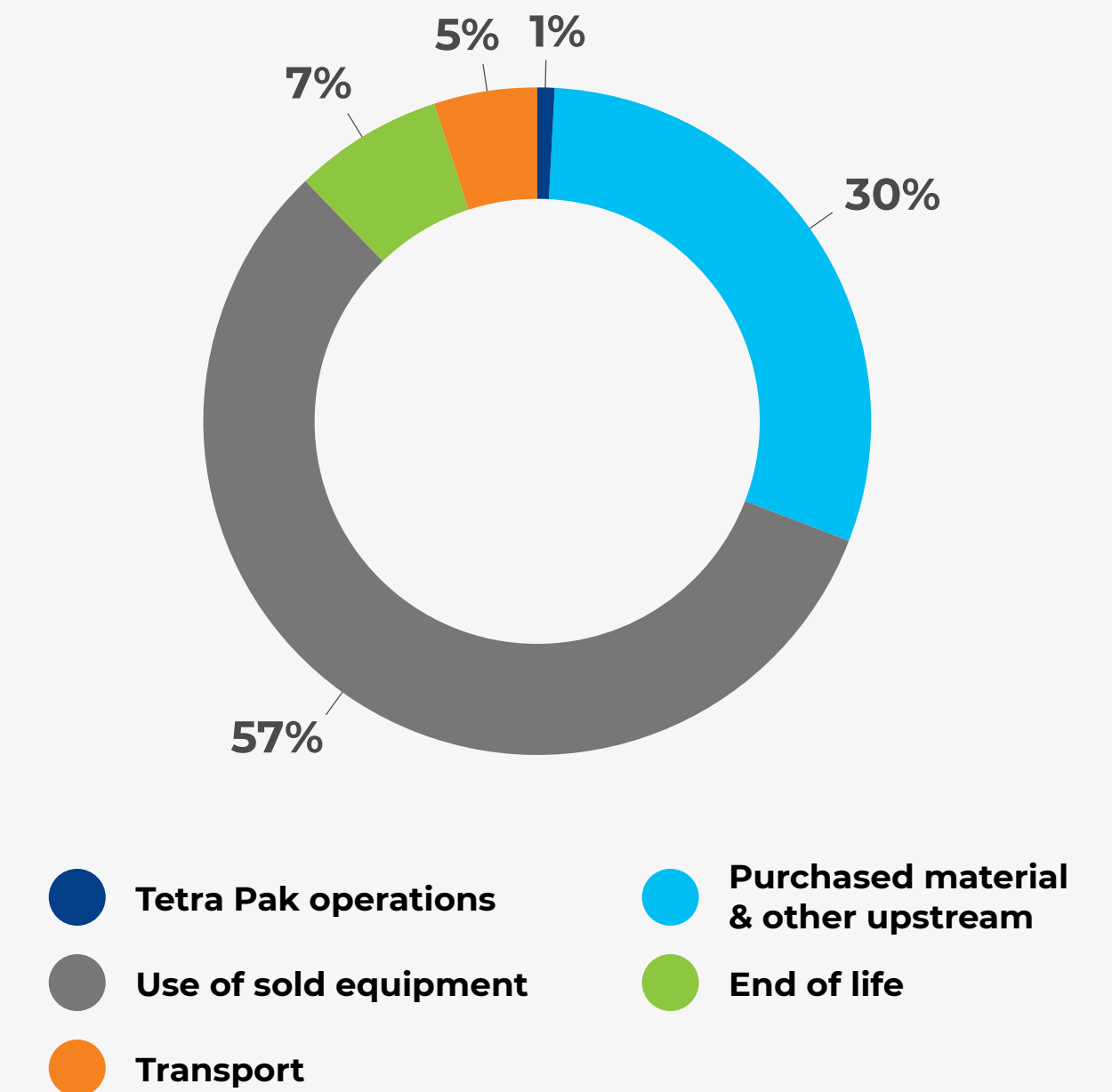
Leading the sustainability transformation means leading by example, and we want our own operations to be a global benchmark for our suppliers, peers, and other leaders. To this end, we are maximising efficiency and minimising waste through World Class Manufacturing (WCM), using and investing in renewable energy, seeking “green building” certifications, promoting lower carbon business travel, and investing in nature-based initiatives for carbon sequestration.

“ We ask our suppliers to make ambitious climate commitments. We cannot demand this of them if we are not doing the same type of work ourselves. For our operations, we need to go beyond what we are requesting of other parts of the value chain and thereby be in a position to support our suppliers and customers to reduce their emissions as well.

**Oliver Edberg,**  
Climate Manager,  
Tetra Pak

### Our 2021 value chain emissions

#### Breakdown of value chain impact

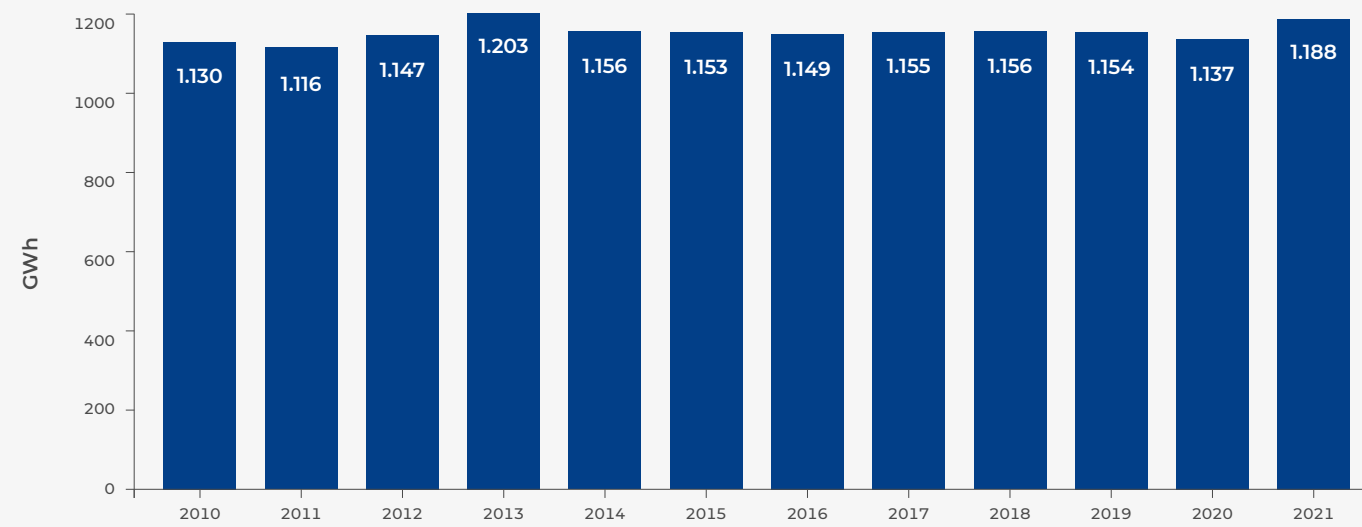


As a significant share of the GHG emissions in our value chain come from raw materials and transportation, we work closely with our suppliers to identify opportunities to reduce CO<sub>2</sub> emissions, both in their operations and throughout their own supply chains. We are also working to reduce the carbon footprint of our best practice processing lines to address the impact of use of sold equipment.

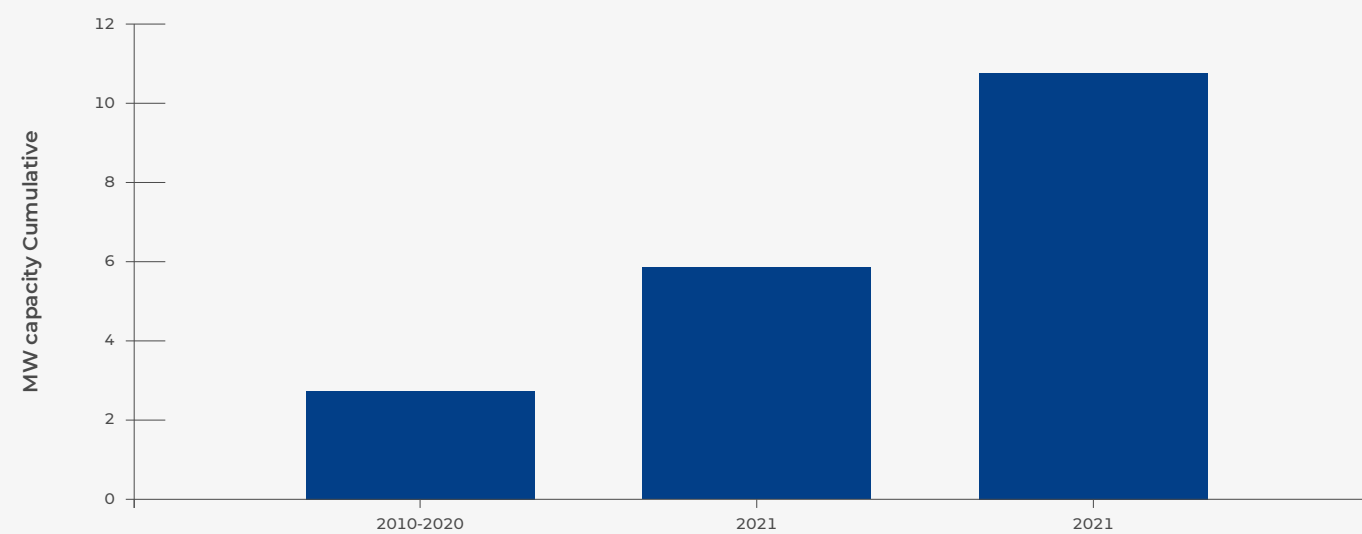
<sup>63</sup> A one litre Tetra Pak carton package is typically made of approximately 70% paperboard, 25% of polyethylene and 5% of aluminium to protect the product inside.

<sup>64</sup> For certain product categories, such as dairy products, the shelf life and food protection properties offered by the fibre-based barrier are comparable to aseptic carton packages that make use of aluminium.

## Our Operational Energy Use



## Solar PV installed at Tetra Pak (MW)<sup>65</sup>



In 2021, we launched the Common Energy Monitoring Platform project to reduce energy demand across our manufacturing sites through proactive energy management. The project will enable further onsite energy optimisation by providing real time data and identifying areas where we can improve energy efficiency. It will be fully rolled out across our manufacturing sites by the end of 2022.

We have achieved 80% renewable electricity in 2021 in part by doubling our renewable solar photovoltaic (PV) capacity from 2.7MW to 5.6MW in 2021 with an additional 5MW contracted for installation in 2022. This is a big step towards our ambition to source 100% renewable electricity in our operations by 2030 in line with the RE100 commitments.

In pursuit of green buildings that minimise impact, our Hohhot closure factory in **China** achieved the Leadership in Energy and Environmental Design (LEED)<sup>66</sup> Gold level certification in 2021. When it comes to business travel, our ambition is to reduce emissions by 50% by 2030 compared to 2019 by reducing the number of trips and providing lower carbon options and alternatives to air travel for short haul travel.

The Araucaria Conservation Programme, our nature-based land restoration initiative in the Atlantic Forest in **Brazil**, includes the certification of up to 13.7 million hectares under international voluntary carbon and biodiversity standards<sup>67</sup> for carbon sequestration measurement. The certification will measure carbon sequestration, which means the project will play a key role in our commitment to achieve net-zero GHG emissions in our operations by 2030.

[Read more on this in the Acting on Nature chapter](#)

<sup>65</sup> In the graph, the 2022 number represents projects already commissioned in 2022 or planned to be commissioned.

<sup>66</sup> LEED is a leading international green building rating system which ensures economic, health, and environmental benefits.

<sup>67</sup> Certification of the project to the Verra VCS and CCB standards will follow the same approach as Conservador da Mantiqueira.



Tetra Pak, Rubiera, Italy.  
Drone image provided by Baywa, re

“ We have embedded a sustainability mindset to our four-step approach as we work with food and beverage manufacturers in improving their operations:

The best way to save energy and water and to reduce food loss is to **AVOID**, i.e., not to use it in the first place or not let it happen

We should **RECOVER** any energy and water use to the greatest possible extent

We should **OPTIMISE** the operations to reach maximum efficiency, i.e., consume minimal water and energy, and keep product loss at a minimum

We **NEUTRALISE** across the value chain and compensate outside of it by, for example, helping food and beverage manufacturers switch to renewable energy and treat wastewater before discharging

**Charles Brand,**  
Executive Vice President,  
Processing Solutions & Equipment,  
Tetra Pak



Almost 60% of our total climate impact comes from the equipment sold to and used by food and beverage manufacturers. To address these value chain emissions, we are developing more efficient packaging and processing equipment and lines, as well as related services, and supporting manufacturers' efforts to measure and benchmark plant performance for operational optimisation.



**Oatly**, the world's original and largest oat drink company, has purchased an integrated processing and packaging solution from us for its first UK factory, currently under construction. To meet the demanding sustainability goals that Oatly set, we have developed systems capable of recycling approximately 80% of CIP (Cleaning-in-Place) chemicals and potentially saving up to 240,000 litres of water per day at full production capacity. This is a unique opportunity for us to provide a truly sustainable solution for Oatly, helping to deliver on their sustainability goals to decrease water consumption and lower the carbon footprint of their products. Wastewater and cleaning chemicals will be captured, cleaned, and then re-used with our advanced filtration systems.

In 2021, we launched the Tetra Pak® Preparation System B-ES and B-EXT equipment. Considering a production scenario containing paste ingredients or sticky concentrates that typically occur for juice, nectars, and still drinks applications, the advanced technology of Tetra Pak® Preparation System B can achieve significant savings throughout the year. In fact, compared to a traditional system with agitators and high shear pump, it can reach annual savings of more than 23 million litres of water (29%), more than 520,000kg of steam (69%) and 260,000 kWh of electrical energy (60%). Overall, this can save food and beverage manufacturers up to €100,000 per year<sup>68</sup>.

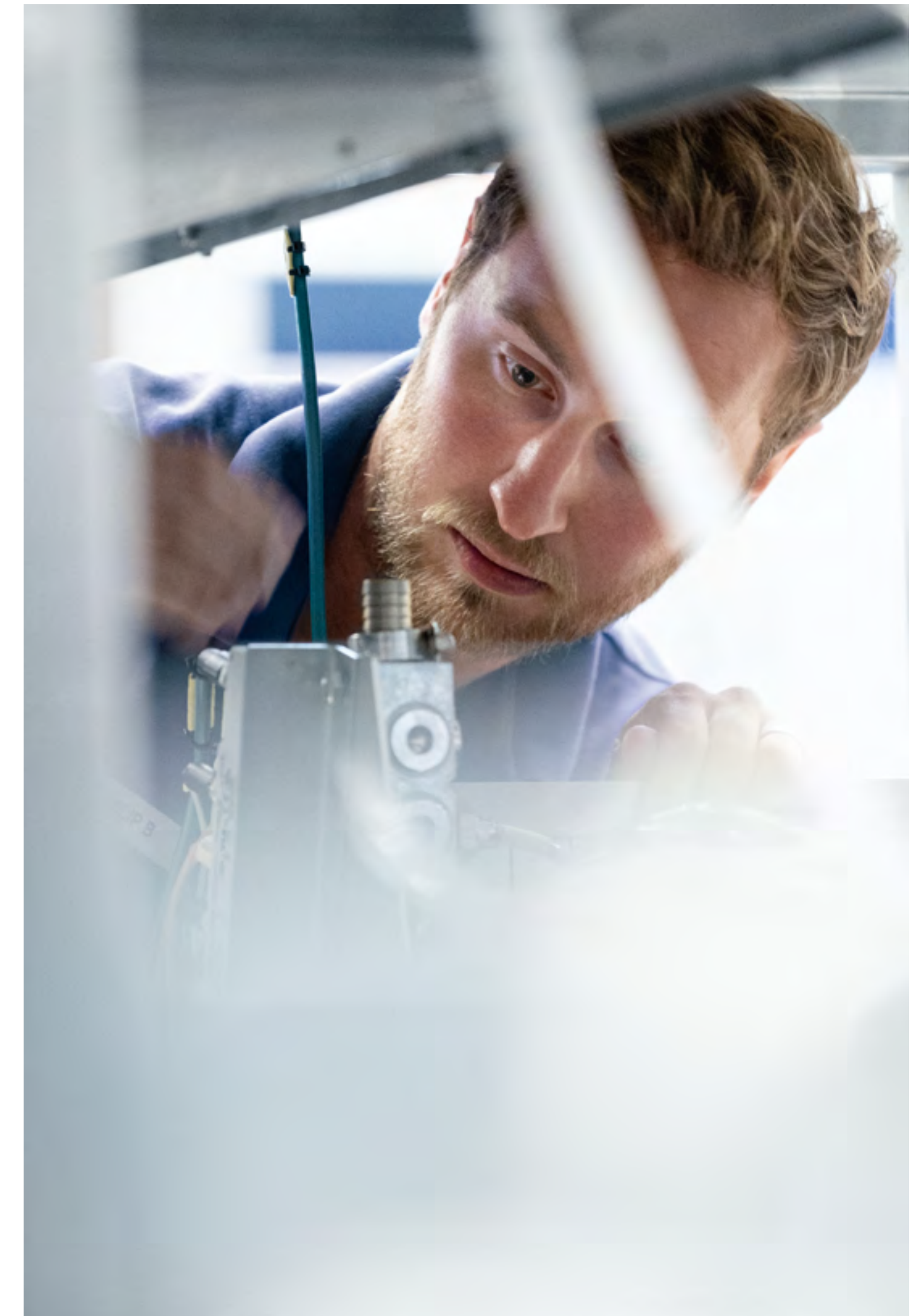
We introduced a unique Extraction and Recovery System that not only generates lower emissions, but also completely eliminates the loss of ingredients as airborne dust during extraction, avoiding food waste. This is available for our new Tetra Pak® Mixer RJCI 4X equipment and our Tetra Pak® Preparation System B-EXT equipment.

Our Preparation System B-ES and B-EXT equipment, as well as the Mixer RJCI 4X equipment, also have an optional auto mixing device that has a near-zero energy consumption. The combined use of the Tetra Pak® Mixer RJCI 4X with the auto mixing device can avoid up to 47,863 kg CO<sub>2</sub> per year compared to an inline high shear pump<sup>69</sup>.

Our new UHT 2.0 heating portfolio and Tetra Pak® E3/Speed Hyper packaging equipment combined reduce GHG emissions by 20%, water usage by 70%, and product losses by 30% compared with a conventional line solution<sup>70</sup>.

We continued to work on improving our filling lines for better environmental performance. One example is the eBeam technology available in our Tetra Pak® E3 line, which replaces the traditional hydrogen peroxide sterilisation process, and can reduce energy consumption by up to 33%, reduce product and packaging waste and make it easier to recycle water, when compared to lines with the traditional process.

Regarding services, we work with food and beverage manufacturers to optimise operational performance and reduce environmental impact, including Maintenance Services as well as Expert Services, such as Plant and Line Optimisations, Food Safety and Quality Solutions and Environmental Assessment Services. We also offer a wide upgrade portfolio, ranging from upgrade kits to full line and plant modifications. Such upgrade solutions enable manufacturers to improve their operational efficiency and reduce their energy consumption and emissions, ultimately reducing costs.



<sup>68</sup> Calculation data captured from internal modelling tool: Production scenario: Working days 365, Working hours 24h, Final mixing time 6min, caustic cycle time 18min, Juice recipe with concentrates, 0.2% gum concentration, Preparation System equipped with Radial Jet Mixer T and centralised Operating table using Auto Mixing Device, compared to Traditional system with agitators and High shear pump and requiring an external pre-mixing vessel for powders.

<sup>69</sup> Calculation details: Operating 8 hours/day, 330 days per year.

<sup>70</sup> Benchmark is based on a conventional indirect heating UHT milk processing line with a packaging line that does not use eBeam technology.

**We take a proactive, collaborative, and pioneering approach to contribute to cartons being collected, sorted, and recycled. Recycling contributes to a low-carbon circular economy by keeping valuable materials in use and out of landfills. It helps prevent littering, saves resources, and reduces climate impact.**

We focus on an innovation pathway driven by renewability and recyclability to ensure the decarbonisation and circularity of materials and to address the need for sustainable food packaging. We also work with food and beverage manufacturers, municipalities, Packaging Recovery Organisations, recyclers, and other packaging converters on carton collection, sorting, and recycling initiatives around the world to contribute to increasing the effective recycling rate. By increasing the number of cartons recycled, we can help reduce methane emissions resulting from landfills. Between 2019 and 2021 our end-of-life emissions reduced from 906 to 886 kilo tonnes.

[Read more on this in the Driving Circular Solutions chapter](#)

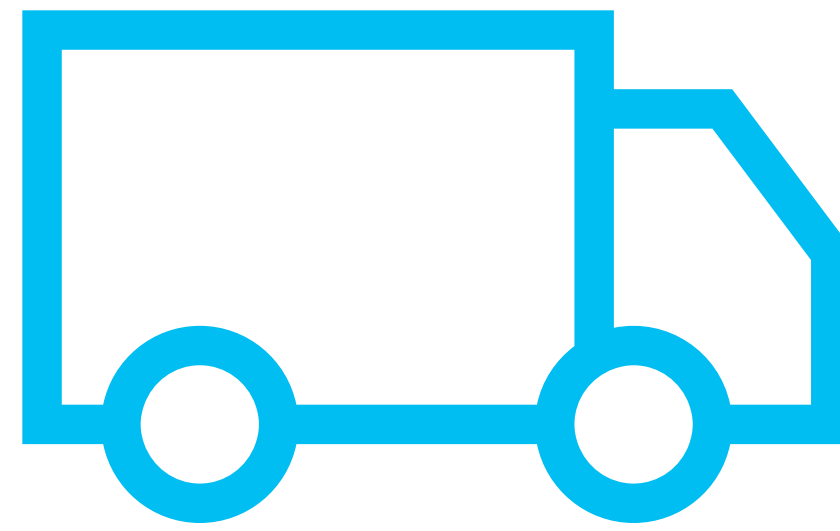
[Read more on this in the Acting on Nature chapter](#)





## The Way Forward

We will continue to work towards our ambition to take action on mitigating climate change by decarbonising our operations, products, and our value chain. For this, we plan to act on the following steps moving forward:

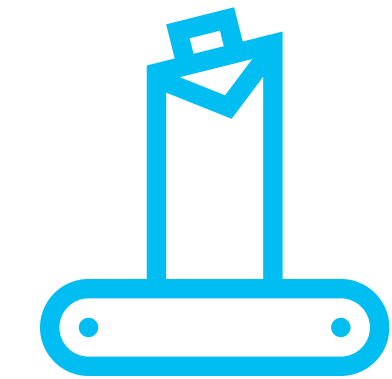


Actively phasing out the use of fossil fuels in our onsite vehicles such as forklifts used in production and warehousing.

Continue working towards sourcing 100% renewable electricity for all our operations by 2030.

Keep our focus on the development and deployment of sustainable food processing equipment and lines to achieve our ambition to reduce the water consumption, food waste and carbon footprint of food production in half by 2030<sup>71</sup>.

Further improve our filling lines for better environmental performance, reducing energy and water consumption, as well as food and product loss thanks to performance optimisation and water recycling.



Identify ways of reducing GHG emissions in our catering service. For example, our Brazilian plant in Monte Mor, Sao Paulo built a composting site in 2021 to help reduce the plant’s organic waste being landfilled to zero. Since the implementation of composting until March 2022, 5.9 tonnes of organic waste were diverted from landfill and composted. The local team is also working on activities to reduce the organic waste generated in the plant’s cafeteria in the first place.

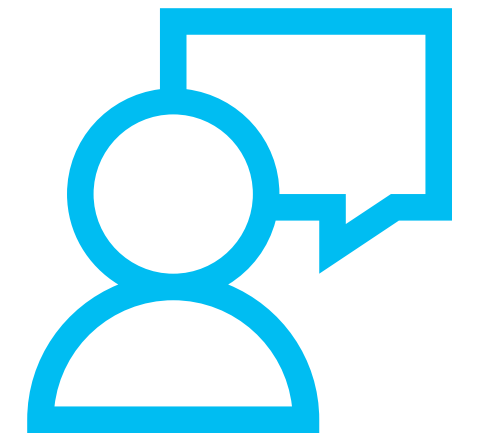
<sup>71</sup> In comparison to a 2019 baseline.



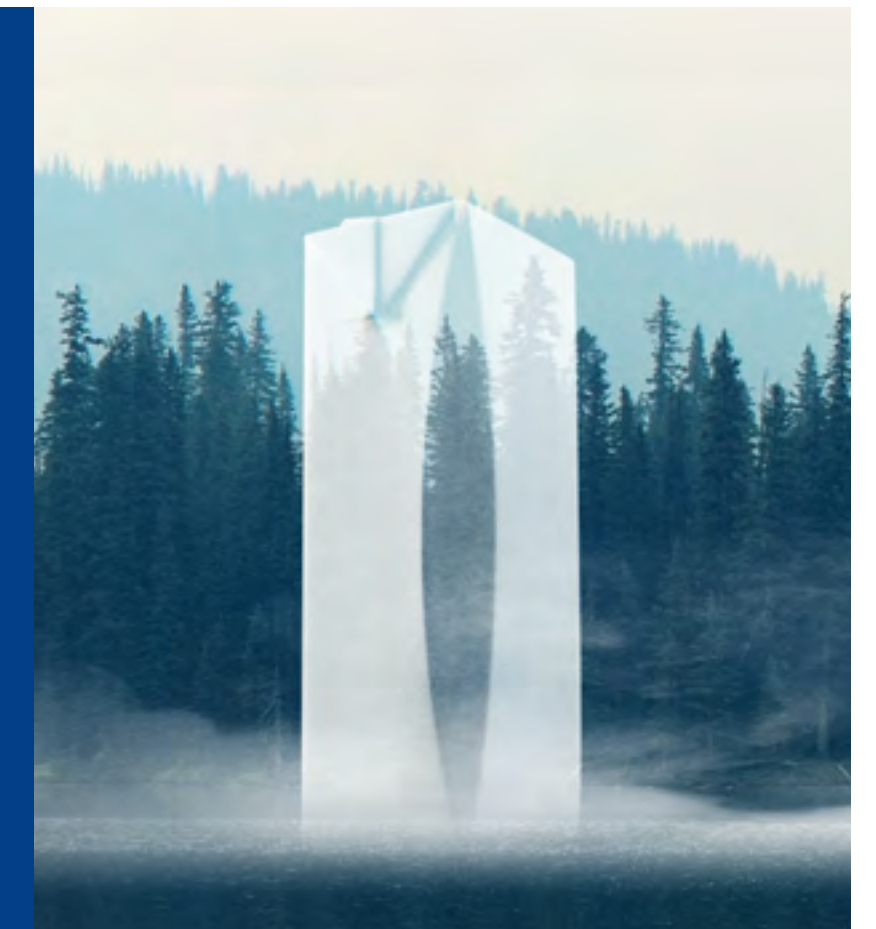
We have started the journey to transform our global company car fleet with the aim to provide our employees with the safest and most sustainable cars available as part of our wider commitment to protecting people and the planet.

Maintain our end-to-end approach to improve sustainability in food and beverage manufacturers' operations, leveraging on our four-step approach: avoid, recover, optimise, and neutralise.

Ensure that our base materials suppliers get certified against the new SBTi Corporate Net-Zero Standard, the world's first framework for corporate net-zero target setting in line with climate science and consistent with limiting global temperature rise to 1.5°C.



**Continue further technology validation to replace the aluminium foil layer barrier in our packages with a fibre-based barrier. Early results suggest that such barrier offers substantial CO<sub>2</sub> reduction when compared to traditional aseptic cartons<sup>72</sup>, alongside comparable shelf life and food protection properties<sup>73</sup>.**

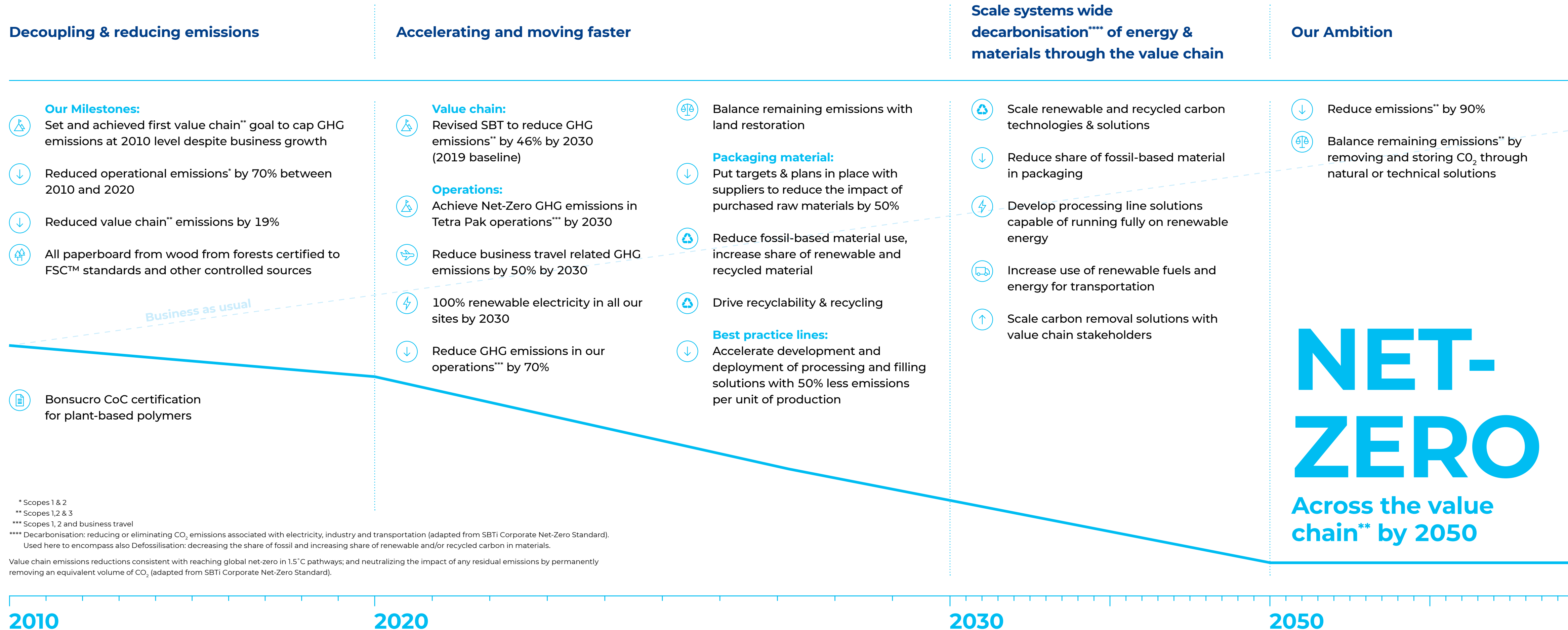


<sup>72</sup> A one litre Tetra Pak carton package is typically made of approximately 70% paperboard, 25% of polyethylene and 5% of aluminium to protect the product inside.

<sup>73</sup> For certain product categories, such as dairy products, the shelf life and food protection properties offered by the fibre-based barrier are comparable to aseptic carton packages that make use of aluminium foil layer barrier.

# Tetra Pak's NET-ZERO Roadmap

Our journey in line with a 1.5°C pathway – decarbonising energy and materials\*\*\*\*



\* Scopes 1 & 2  
 \*\* Scopes 1, 2 & 3  
 \*\*\* Scopes 1, 2 and business travel  
 \*\*\*\* Decarbonisation: reducing or eliminating CO<sub>2</sub> emissions associated with electricity, industry and transportation (adapted from SBTi Corporate Net-Zero Standard). Used here to encompass also Defossilisation: decreasing the share of fossil and increasing share of renewable and/or recycled carbon in materials.  
 Value chain emissions reductions consistent with reaching global net-zero in 1.5°C pathways; and neutralizing the impact of any residual emissions by permanently removing an equivalent volume of CO<sub>2</sub> (adapted from SBTi Corporate Net-Zero Standard).

# Driving Circular Solutions

Waste mismanagement endangers human health and local ecosystems, while simultaneously exacerbating climate change and its negative effects<sup>74</sup>. The World Bank projects global waste to increase by 70% from a 2018 baseline by 2050<sup>75</sup> if we continue our “take-make-waste” linear economy model. **Changing the course of this projection requires a shift to a circular economy, based on three principles: designing out waste and pollution, keeping products and materials in use; and regenerating natural systems<sup>76</sup>.** Circular economy models have the potential to significantly reduce the negative impacts to human and ecosystem health associated with waste mismanagement and simultaneously promote innovation, increase competitiveness, and foster business growth.

As an important player in the food and beverage industry, we are committed to managing our resources efficiently. As a result, we continue to innovate in the design of food processing and filling equipment to reduce food waste, energy and water usage, and emissions in food and beverage manufacturers’ operations.

In terms of our packaging solutions, we stand by our founder’s belief that “a package should save more than it costs” and are thus working on developing the world’s most sustainable food package – a carton that is made solely from responsibly sourced renewable or recycled materials, is fully recyclable, and carbon neutral.

To make this possible, we are investing approximately €100 million per year over the next 5-10 years to develop sustainable packaging solutions further. As for the equipment we supply to food and beverage manufacturers, we work to extend their lifespan by designing them to be maintained, leased, reused, repaired, and upgraded. And finally, we have around 70 recycling experts across the world who collaborate every day with recyclers, local authorities, and food and beverage manufacturers to enable materials from our packaging re-enter the economy at the end of their use by working on expanding industrial recycling solutions and pulling market demand for quality recycled material (paper pulp, plastics compounds) produced from cartons.

Through our various initiatives and work around driving circular solutions, we contribute to SDGs 9, 12, and 17.



<sup>74</sup> United Nations Environmental Programme. “Waste and climate change: Global trends and strategy framework.” International Environmental Technology Center (2010).

<sup>75</sup> <https://openknowledge.worldbank.org/handle/10986/30317>

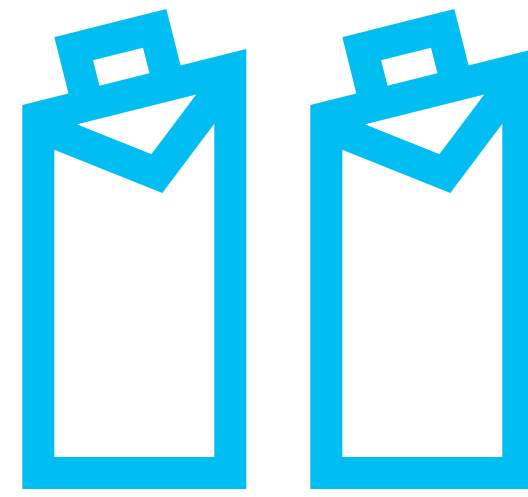
<sup>76</sup> Ellen MacArthur Foundation.



## A concrete approach to recycling and circularity

1.2 million tonnes of cartons were collected and sent to recyclers in 2021. This represents 26% of the total volume of cartons sold and reflects the volume sent to recyclers, which is higher than the volume effectively recycled<sup>77</sup>. As an industry, we have the ambition to achieve a 90% collection rate and a 70% effective recycling rate in the European Union by 2030<sup>78</sup>.

A systemic change is needed in many countries to increase the collection rate and large investments are needed to increase the capacity of paper mills and polyAl<sup>79</sup> recyclers' infrastructure. Our strategy is to invest up to approximately €40 million annually<sup>80</sup> in the coming three years to build the needed collection and recycling infrastructure in partnership with other value chain players and recyclers – we praise countries where local authorities and Packaging Recovery Organisations (PROs) are committed to collecting cartons nationwide and in the same collection for recycling scheme as other liquid food packaging.



Ensuring that our cartons are designed to be effectively recycled at scale in state-of-the-art industrial infrastructure

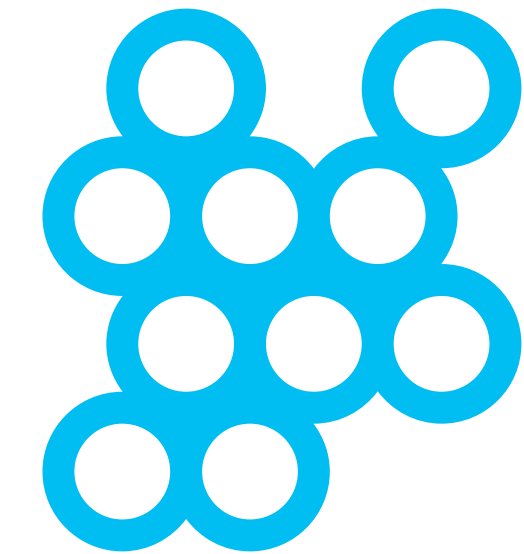
### Co-investing with partners in new recycling capacities for cartons

# €100 million

**to be invested per year over the next 5-10 years to develop sustainable packaging solutions**

### Convincing local authorities and PROs to mandate the collection for recycling of cartons with all other packaging for liquid food

Increasing our capabilities to drive market demand for recycled fibres and recycled polyAl



Gradually **increasing the recycled content** in our packaging, with the ambition to close the loop

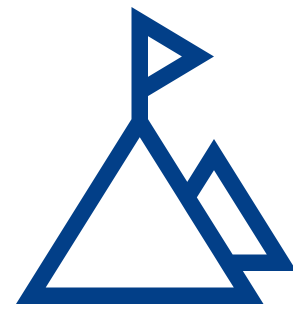
<sup>77</sup> Calculated based on aggregated consumption data in country, including all carton converters.

<sup>78</sup> The collection rate is measured as the weight of packaging sent to recyclers, divided by the weight of packaging put on the market. The collection rate does not consider the losses of material that occur during the cleaning and recycling steps, while the effective recycling rate does deduct these losses.

<sup>79</sup> PolyAl is the non-fibre fraction of a carton package made up of polymer and aluminium.

<sup>80</sup> Both operational and capital expenditures.

<sup>81</sup> Examples of PROs: [www.fostplus.be](http://www.fostplus.be) in Belgium, or [www.return-it.ca](http://www.return-it.ca) in Canada.



## Our Achievements in 2021

### Packaging, Collection, and Recycling

#### Packaging

**We are on a journey to deliver the world’s most sustainable food package, made solely of responsibly sourced renewable or recycled materials, fully recyclable and carbon neutral. We are focusing on decreasing the share of plastics and aluminium and increasing the share of paper more than the average 70% of today, while continuing to keep food safe and available for consumers.**

Following the successful completion of a 15-month commercial technology validation of a polymer-based barrier replacing the aluminium foil layer, we started testing a fibre-based barrier that is a first within food carton packages distributed under ambient conditions. A first pilot batch of single serve packs featuring this industry-first material are currently on shelf for a commercial consumer test, with further technology validation scheduled later in 2022.

This initiative underscores our approach to design for recycling, where increasing the paper content is critical, and supports end-user expectations. Based on recent global research, approximately 40% of consumers confirmed they would be more motivated to sort for recycling if packages were made entirely from paperboard and had no plastic or aluminium. In addition, cartons with higher paper content are also more attractive for paper mills. Thus, this concept presents clear potential for realising a low carbon circular economy for packaging.

### Tetra Pak portfolio strategic objectives to get there

Secure solutions to address regulations and climate change

Secure “circularity” in portfolio

#### Sustainable openings

- Paper straws
- Non-detachable alternatives
- Tethered caps

#### Recycled content

- Use of recycled polymers and paper in primary/secondary packaging and additional material

#### Renewable package

- Launch fully renewable aseptic carton package
- Expand deployment of plant-based products

#### Enable recycling by design

- Explore new packaging material structures
- Smart packaging that enables collection/sorting/recycling

**Our ambition to deliver the world’s most sustainable food package, made solely of responsibly sourced renewable or recycled materials, fully recyclable and carbon-neutral.**



“ To keep the innovation engine running, we are investing €100 million per year and will continue to do so over the next 5 to 10 years to further enhance the environmental profile of cartons, including the research and development of packages that are made with a simplified material structure and increased renewable content. There is a long journey ahead of us, as we strive to achieve our sustainability ambitions while ensuring food safety, but with the support of our partners, we are well on our way.

**Eva Gustavsson,**

Vice President Materials & Package,  
Tetra Pak

By the end of 2021, paper straws that we developed and launched in 2019 had been ordered by more than 90 beverage manufacturers, replacing more than one billion plastic straws.

Early in 2022, **Elvir**, a subsidiary of Savencia Fromage & Dairy, a world leading milk processor in **France**, became the **first brand** to use our HeliCap™ 23 opening solution integrating attributed recycled polymers<sup>82</sup> and by that continued to reduce its dependency on virgin, fossil-based resources. The new caps used by the company's Elle & Vire cream brand are certified by the Roundtable on Sustainable Biomaterials (RSB) using the 'attribution' chain of custody approach, meaning that the supplier of the polymers used in the packaging guarantees that it has produced the equivalent weight of polymers from recycled oil.

➔ **Read more about alternative barriers: visit our website**



Elle & Vire cream with HeliCap™ 23 opening solution integrating attribute recycled polymers

<sup>82</sup> The attributed recycled polymers used in Tetra Pak carton packages are produced under the RSB attribution model (RSB Advanced Products Category III). The plastic produced via such a process is made of a mix of recycled and non-recycled plastic, the exact composition of which is not possible to determine in each individual product, but by purchasing attribution credits according to the mass balance system, and tracking these throughout the Tetra Pak supply chain, the material used in the caps corresponds to a similar amount of chemically recycled plastic. This is verified by a third-party auditor, according to the RSB Chain of Custody Procedure, which forms part of the RSB Advanced Products certification.

Since 2015, with the launch of the Tetra Rex® plant-based package, we have steadily increased the use of plant-based plastics over fossil-based plastics which contributes to an even lower carbon footprint of our packaging. We continued this development and sold 17.6 billion packages made with plant-based plastic and 10.8 billion caps made with plant-based plastic in 2021. In 2021 alone, the amount of plant-based plastic used by Tetra Pak resulted in 96 kilo tonnes of CO<sub>2</sub> saved compared to the amount of CO<sub>2</sub> which would have been emitted if using fossil-based plastic<sup>83</sup>.

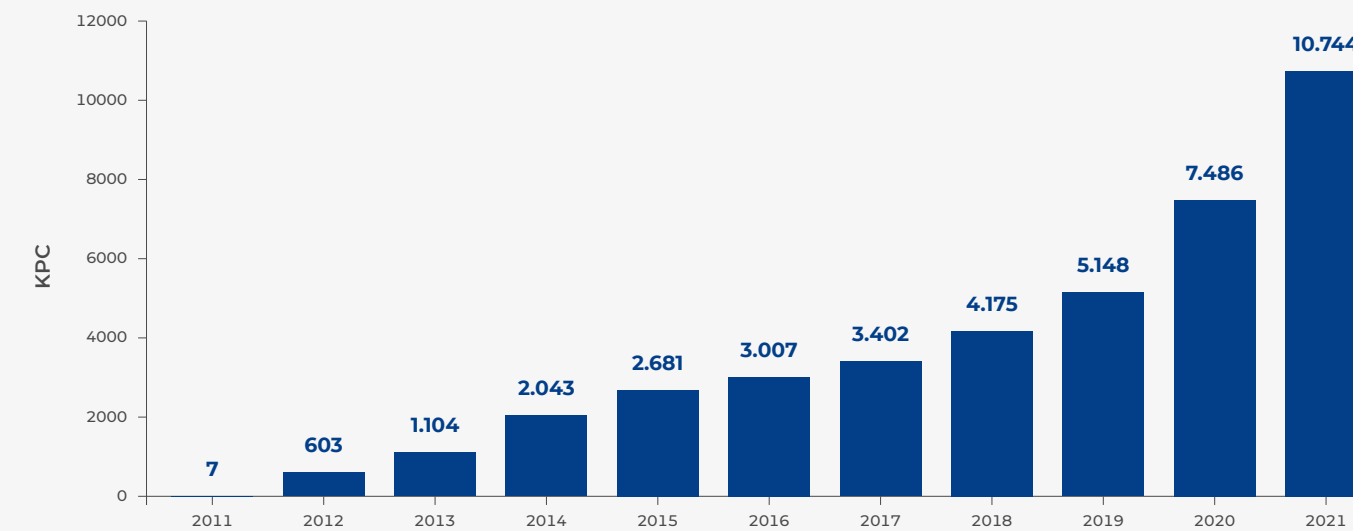
Joining forces with leading beverage producers, we launched tethered caps on carton packages in 2022, with five new tethered cap solutions being introduced by **Borrisoleigh Bottling Ltd** in **Ireland**, **Cido Grupa** in the **Baltics**, **LY Company Group** and **Lactalis Puleva** in **Spain** and **Weihenstephan** in **Germany** in different product categories – a market first for these geographies. As part of a wider programme, this development paves the way for Europe-based food and beverage manufacturers to stay ahead of schedule and meet the Single Use Plastics (SUP) Directive coming into force by 2024.

To enable the future transition to tethered caps, in 2021 we invested €100 million in our factory in **Châteaubriant, France**. In total, we are investing around €400 million in the development and roll-out of tethered cap solutions. We are planning to equip approximately 150 packaging lines with tethered caps in Europe by the end of 2022.

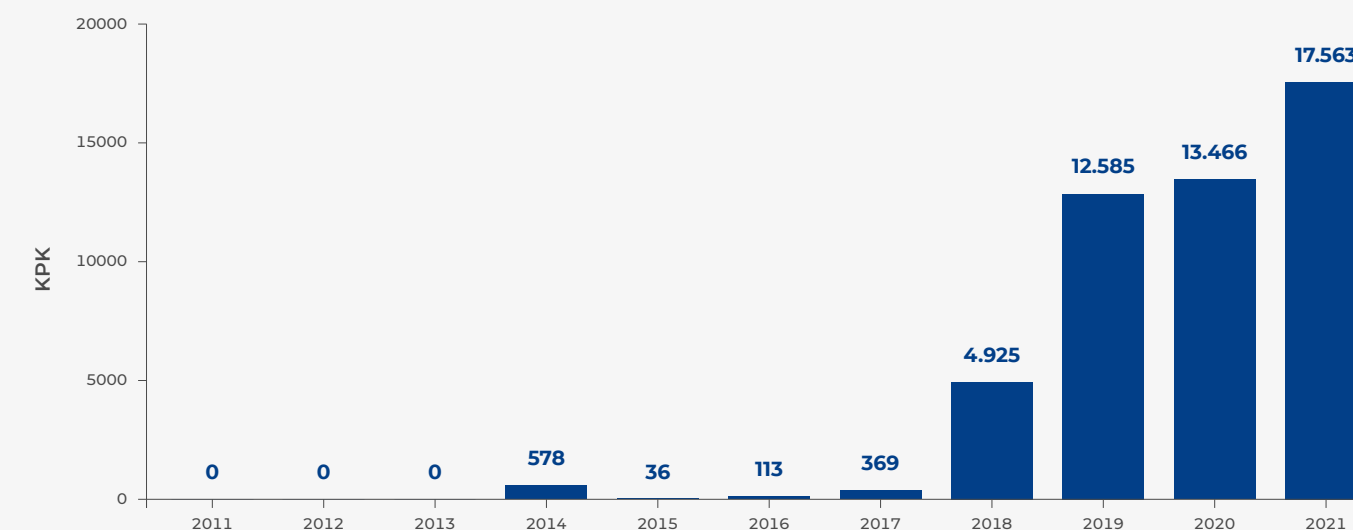
- **To read more about world's first tethered caps carton packages: visit our website**
- **To read more about Tetra Pak's investment: visit our website**
- **To read more about reducing littering: visit our website**

<sup>83</sup> Based on climate accounting internal calculations considering 59 kilo tonnes of plant-based plastic purchased in 2021. To calculate the avoided emissions number, we use a third party validated emission factor for the plant-based polymers.

### Plant-based cap quantity



### Plant-based packaging material quantity



## Collection & Recycling

### Collection

**Recycling starts with collection. The collection of household waste packaging is a complex matter, ruled by many different local legislations and local authorities. The key to achieve collection at scale is to have efficient public-private partnerships.**

In countries where citizens have access to a collection infrastructure for household waste, our experts are advising municipalities, local authorities, and PROs on how to increase the collection rate<sup>84</sup> through informed regulatory and systemic choices.

In countries where no infrastructure is yet in place, we collaborate with local recyclers and help the informal sector to collect accessible volumes. In these countries, we also invest in environmental training for schoolchildren, educating the next generation to improve waste management in their countries.

Examples of successful regulations are **Belgium** and **Canada**. In **Belgium**, the packaging national ordinance includes a 90% collection for recycling target for beverage cartons, resulting in a collection rate of cartons above 90%. This will support our overall ambition to achieve at least a 70% recycling rate by 2030 in the European Union. In countries where beverage cartons are collected without specific targets, the collection for recycling rate remains most often lower than 50%.

In **Canada**, there is a widely established deposit return system (DRS) in 11 out of the country's 13 provinces. Since 2011, beverage cartons have been included in 10 DRS. As the system evolves, last year the province of British Columbia, which was already achieving a collection rate of cartons of 66%, announced that it will now also include milk containers into their DRS effective February 2022. The province of Quebec followed, announcing the expansion of its DRS in 2023 to all beverage containers, including dairy, from only carbonated beverages. Generally, the carton recycling performance is greater in DRS systems compared to non-DRS systems.

In 2021 we collaborated with **VECA**, in **Vietnam**, to add cartons on the collection list of the VECA smartphone app. With the application of this digital technology platform, cartons can be easily collected at households or businesses.

*“Our goal is to make cartons collectable everywhere, including at home, schools, bars, or workplaces. If we can do that, we will be very close to forming a culture of sorting used cartons to preserve and protect the environment and natural resources. The application of digital technology in collection is the key to achieving this goal.”*

**Ly Quynh Trang,**  
Director of Sustainability,  
Tetra Pak Vietnam

In **Mexico**, we collaborated with governments and civil organisations in campaigns to collect recyclable waste through the installation of containers made of polyAl in cities across the country. More than 40 kilo tonnes were collected in 2021. In **Peru**, we deployed a “Supplier's prospection and usable inorganic solid waste conditioned area's implementation project” with the NGO **Reciclame**. With this project, we aim to develop Peru's recycling chain by seeking new collection sources.

*“We acknowledge that we cannot attain high collection rates for our packaging alone. Our ambition to achieve a 90% collection rate by 2030 in the European Union will only be obtained through wise local regulations and cooperation between the public and the private sectors.”*

**Christine Leveque,**  
VP Collection and Recycling,  
Tetra Pak



<sup>84</sup> Collection rate is the amount of packaging collected and sent to recyclers, divided by the amount of packaging put on the market.

## Collection & Recycling

### Recycling

**In 2021, 50 billion cartons were collected and sent for recycling<sup>85</sup>, representing a volume of 1.2 million tonnes.**

Today, the vast majority of cartons collected for recycling are mostly sent to paper mills, which recover the fibre, separating the polyAl. The fibre is then recycled into several different types of paper materials such as tissue paper, office paper, and cardboard. Then, the polyAl can be sent to plastic and aluminium recyclers that will recycle it by using different technologies to create valuable products such as pellets, panels, profiles, pallets, crates, and tiles.

**This year, we have reviewed and updated our recycling reporting methodology to improve reliability, transparency, and relevance.**

This is the first step towards our ambition to have third-party verified recycling reporting for our industry. The changes introduced with the new methodology include:

- Moving toward post-consumer recycling rate, which means the pre-consumer waste from food and beverage manufacturers' factories is no longer included in the calculation of the collection for recycling rate.
- Introducing a tier-based system to drive an increase in data quality and reliability
- Tracing the destination of collected volumes to receiving recyclers wherever possible, and better integration of information provided by the recyclers.

As a result of the changes in accounting, our actual global recycling rate figure was 26% in 2021, compared to 25% in 2020, both using the new recycling reporting methodology.

[To learn about other collection and recycling initiatives: visit our website](#)

**We continued our close collaboration with partners across the world to expand recycling capacity for cartons, both the paper and polyAl materials. We are a leading member in global and regional industry initiatives aimed to boost collection and recycling infrastructure. We drive local activities with around 70 full-time employees around the globe who focus on advancing the carton recycling value chain in collaboration with other industry partners.**



In **Saudi Arabia**, we joined two leading recycling companies, **Obeikan Paper Industries** (OPI) and **Saudi Top Plastic Factory** (STP) on the 'RIYcycle' project. With a combined investment of over €3 million, the project – the country's first – aims to increase collection and recycling by creating value for post-consumer cartons. The goal is to recycle all the components of the packages collected in Saudi Arabia and neighbouring countries, such as **Kuwait** and **UAE**. The new line for carton recycling has an expected capacity of 8 kilo

<sup>85</sup> Carton packages are collected and recycled worldwide, where waste management and recycling infrastructure is in place.

tonnes a year, while the new plant for polyAl has a capacity of around 4 kilo tonnes of granules per year.

[To read more about this: visit our website](#)

In **Vietnam** we collaborated with the **Dong Tien Packaging and Paper Co., Ltd** and pledged a combined investment of €3.5M to upgrade and expand the recycling capacity of carton packages. This was the first time a foreign packaging solutions company has invested in promoting the capacity of Vietnam's recycling industry.

[To read more about this: visit our website](#)

In **Poland**, we joined forces with our paperboard supplier **Stora Enso** and recycler **Plastigram** in a project to triple the country's beverage carton recycling capacity from 25 to 75 kilo tonnes, with a total investment of €29.1 million in two lines to recover and separately recycle the plastics and the aluminium. A patented separation technology will be used, allowing the plastics and aluminium to be used separately as raw materials for various end applications such as crates and foils. Both lines will be operational by the beginning of 2023.

[To read more about this: visit our website](#)

With our active support, Dutch start-up **Recon Polymers BV** opened a new plant in the **Netherlands** with a capacity that will be progressively upgraded to 7 kilo tonnes input of polyAl per year. Recon Polymers is exploring new applications for recycled materials from polyAl, including working with design furniture producers, 3D printing and companies producing logistic packaging. The plan is to double capacity to 15 kilo tonnes per year by the end of 2023.

In **Australia**, builders will soon be able to replace plywood, particle board, and plaster board with recycled construction boards made from packaging waste such as post-consumer carton packages. Funded by the Australian Government's Recycling Modernisation Fund and the New South Wales (NSW) Government's Waste Less, Recycle More initiative, the project is the first outcome of the collaboration between Tetra Pak and industry players under the umbrella of the Global Recycling Alliance for Beverage Cartons and the Environment (GRACE) and is a joint initiative with **saveBOARD** and its supporters Freightways and Closed Loop. An AUD1.74 million grant from the Federal and NSW Government will enable the creation of an AUD5 million facility before the end of 2022, with an estimated 4 kilo tonnes carton recycling capacity.

In **Turkey**, in collaboration with **Kahramanmaraş Paper**, the country's first complete recycling solution for carton packages was inaugurated in 2021. The plant enables the recycling of all components of our cartons, with an annual recycling capacity of 18 kilo tonnes of cartons, equalling 47% of the current carton recycling capacity in the country. Recycled fibres are re-purposed into the paper production process, with the remaining polyAl components granulated and given new life in the form of produce baskets, irrigation pipes, containers, and pallets.

 **To read more about these initiatives: visit our website**



Carton recycling – paper manufacturing phase

## Equipment lines for food processing

**We are applying circular design principles as we improve and innovate food processing equipment that operates more efficiently to reduce food waste, energy and water consumption, has extended lifespans and greater opportunities for reuse, refurbishment, and recycling.**

In 2021, we launched a new Business Processing Selling Model that enables the reuse and recycling of food processing equipment. Through this model, the food and beverage manufacturers we work with can lease a piece of equipment from us and, at the end of the leasing period, if the used equipment is no longer needed, we offer a buy-back solution. The used equipment will then either be sold, after refurbishing, to new food and beverage manufacturers on the second-hand market or recycled. As this model was only recently launched, we still do not have quantified benefits but plan to measure these soon.

To increase the life span of our Maintenance Unit's station wheel part<sup>86</sup>, we started to apply special coatings (Temp Coat Umbra 5001™). This enabled the food and beverage manufacturers we work with to use the parts for longer and therefore, fewer parts get scrapped. Increasing the life cycle of these parts also makes it possible to refurbish and reuse the old maintenance units to a much larger extent, reducing the amount of scrapping.

We explored new ways of making Brewer's Spent Grain (BSG), a side stream from the brewing industry, safe and available for human nutrition by turning it into food. Every year, 40 million tonnes of BSG, rich in fibre and protein, ends as animal feed and in landfill due to its rapid spoilage, preventing its usage in the food industry. With our highly efficient patented sterilisation process, BSG now can be heat treated for longer preservation. This circular processing solution enables breweries and other companies to use BSG as an ingredient for further food applications such as plant-based milk or bread.

**“** Making food side streams safe and available goes hand in hand with sustainability. Moreover, by upcycling food side streams, we can use our resources in a more efficient way. Circular food solutions help the planet to stay in its planetary boundaries.

**Mirko Stanic,**  
Processing Account Manager,  
Tetra Pak

**➤ To read about another example of how we are contributing to circularity by turning by-products into new ingredients, [click here](#)**



<sup>86</sup> Maintenance Units are complete plug and play units that further simplify the handling of parts and maintenance. They are made up of single parts that together perform a function in the machine. The station wheel moves the package when it comes from the jaw and secures its exact position for bottom folding.



## The Way Forward

We will continue to work towards our ambition to drive circular solutions by designing recyclable liquid food packaging, using recycled and renewable materials, and expanding collection and recycling to keep materials in use and out of landfills. For this, we plan to act on the following steps moving forward:

Continue our stepwise approach in the gradual development and validation of new solutions towards a package that is fully renewable, fully recyclable and carbon neutral. Early in 2022, we started testing a fibre-based barrier that is a first within food carton packages distributed under ambient conditions. A first pilot batch of single serve packs featuring this industry-first material are currently on shelf for a commercial consumer test, with a further technology validation scheduled later in 2022.

**Progress towards our goal of a minimum of 10% attributed recycled polymers content on average across carton packages sold in Europe by 2025, knowing that the supply of these attributed recycled polymers is currently limited, and their carbon footprint needs to remain lower than the one of virgin polymers.**

Drive systemic change to drastically increase the carton collection, supported by large investments to increase the capacity of the paper mills and polyAl recyclers infrastructure.



Increase effective recycling rates by investing<sup>87</sup> up to approximately €40 million per year in collection and recycling infrastructure.

Increase our efforts around refurbishing, reusing, or recycling processing equipment, with the aim to going beyond key components and including other processing units in the future.



<sup>87</sup> Both operational and capital expenditures.

# Creating Positive Impact for People & Communities

The world is currently behind on meeting the 17 UN SDGs, many of which have been exacerbated by COVID-19.

- The pandemic resulted in an additional 119 to 124 million people being driven back into poverty and a total of 255 million full-time jobs lost<sup>88</sup>.
- Each day 7,500 people die from unsafe and unhealthy working conditions<sup>89</sup> and hundreds of millions of people suffer from discrimination in the workplace<sup>90</sup>.
- The World Economic Forum's Gender Gap report<sup>91</sup> estimates it will take 135.6 years to close the gender gap worldwide, up from 99.5 years before the pandemic<sup>92</sup>.

These challenges are also deeply interconnected with the environmental and food-related issues we are focused on. Environmental issues like climate change, biodiversity loss, and freshwater scarcity can result in sickness and death, physical destruction of homes and communities, and unemployment<sup>93</sup>. Unsustainable food systems put additional pressure on the environment as well as food security, leaving many hungry and malnourished.

Therefore, it is important for us to apply a social lens to everything we do, particularly to the initiatives we drive to address environmental and food-related issues. In the same way, socioeconomic development efforts must be holistic, with a systems-based approach and collaborative initiatives that are connected to planet and food. The private sector

has an important role to play in achieving the SDGs, as drivers of the economy with considerable influence and impact. Through our business interactions and our packaging and food processing solutions, we touch millions of people's lives every day, and we want to ensure that we contribute to creating a healthy, fair, and inclusive society, and that we generate positive social impact for the communities across our value chain.

Our ability to generate meaningful impact, whether for our extended network of stakeholders or for our own business, relies on the strength of our most important asset: our people. Our history of industry innovation, our ability to weather the COVID-19 pandemic with resilience, and our optimism for a future of sustainability leadership would not be possible without the ingenuity, commitment, and compassion of our employees.

Through our various initiatives and work around driving circular solutions, we contribute to SDGs 4, 5, 8, and 17.



<sup>88</sup> <https://unstats.un.org/sdgs/report/2021/>

<sup>89</sup> [https://unglobalcompact.org/take-action/safety-andhealth#:~:text=This%20means%207%2C500%20people%20die,HIV%2FAIDS%20\(312%2C000\).](https://unglobalcompact.org/take-action/safety-andhealth#:~:text=This%20means%207%2C500%20people%20die,HIV%2FAIDS%20(312%2C000).)

<sup>90</sup> <https://www.unglobalcompact.org/what-is-gc/our-work/social/labour>

<sup>91</sup> [https://www3.weforum.org/docs/WEF\\_GGGR\\_2021.pdf](https://www3.weforum.org/docs/WEF_GGGR_2021.pdf)

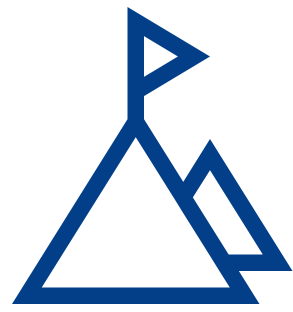
<sup>92</sup> [WEF\\_GGGR\\_2020.pdf](https://www3.weforum.org/docs/WEF_GGGR_2020.pdf) (weforum.org)

<sup>93</sup> <https://csd.wustl.edu/areas-of-work/environment-social-development/#:~:text=Global%20environmental%20changes%2%80%94such%20as,%2C%20health%2C%20and%20sometimes%20survival.>



School Feeding Programme, Mexico





## Our Achievements in 2021

### – Our People

We have made it our priority to attract and retain the best talent, promote wellbeing and occupational health and safety with a goal of zero accidents and work-related ill health, and ensure a diverse workforce and an inclusive culture, where all employees can thrive, learn, and grow.

## Employee Health, Safety & Wellbeing

Our occupational health and safety (OHS) initiatives ensure fair and safe working conditions everywhere for our employees where physical and mental well-being are promoted and protected. We launched our Mental Wellbeing Programme to raise awareness on mental wellbeing and create dialogues within our teams to destigmatise poor mental wellbeing and encourage employees to seek support if needed.

In 2021, our CEO Adolfo Orive introduced the Mental Wellbeing Programme through a video campaign called 'It's okay, to not be okay!'. Through the Programme, we developed tools, trainings, and support services and launched an external counselling service.

- **5,000+** employees have completed the awareness training
- **7,300+** hits on the mental wellbeing self-help tool Orbis page
- **72%** of employees feel comfortable talking about their mental wellbeing at Tetra Pak
- **79%** understand the available resources regarding mental wellbeing

Mental wellbeing is a personal matter that can be heavily influenced by local cultures. Thus, our markets have adapted the Mental Wellbeing Programme to local contexts.

In our **Asia-Pacific** region, colleagues organised the APAC Wellbeing Week with daily activities to share tools to keep employees safe and active.

In **Brazil**, two mental wellbeing awareness eLearning modules were developed for employees.

As COVID-19 persisted in 2021, we continued to provide comprehensive information on the developments of the pandemic to our employees, keeping everyone informed on variants, vaccines, travel restrictions and safety, preventative measures, etc. In addition to the focus on COVID-19, we also continued to improve how we manage the safety risks associated with our activities.

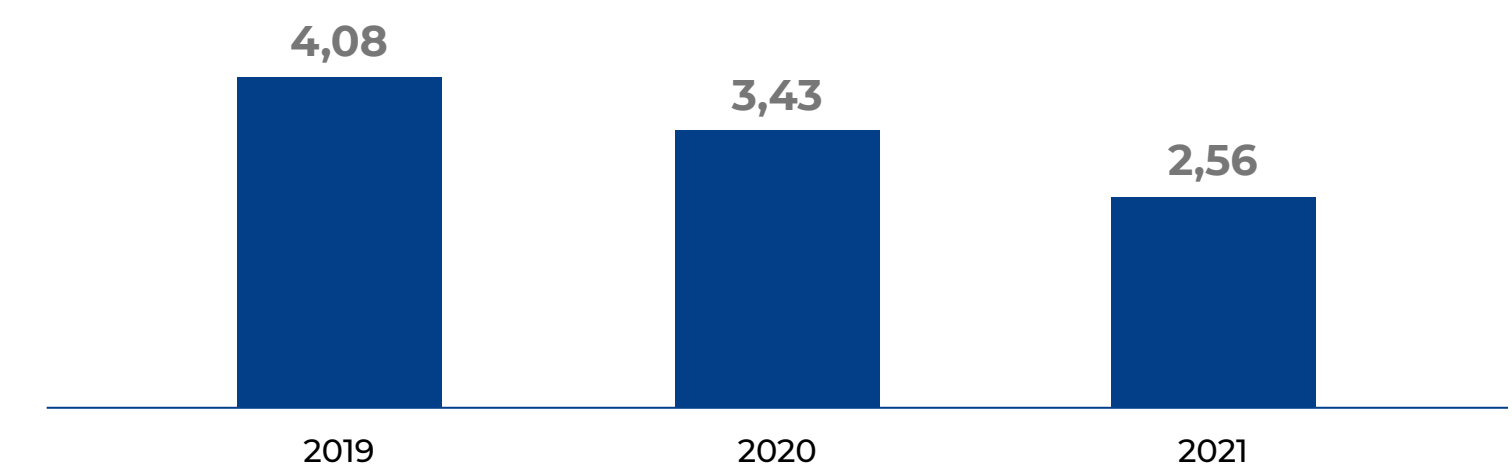
We implemented a new global software platform, MyOHS, to deliver OHS support wherever our employees are working. Through a new virtual course, we are raising the OHS competency of our project and site managers. So far, 75% of global project and site managers have completed the training with the rest planned for 2022.

In 2021, there were no fatalities but one high consequence incident. As we do on all high consequence accidents, we have put in place a detailed action plan to drive improvements and prevent reoccurrence.

We had 144 recordable incidents giving us a Total Recordable Accident Rate<sup>94</sup> of 2.56, a 25% reduction compared to 2020.

### Total Recordable Accident Rate (TRAR)

12 months average (MA)



<sup>94</sup> Total number of accidents with a severity greater than first aid per 500 employees.

## Diversity and Inclusion

Through our Diversity and Inclusion (D&I) initiatives, we continue to strive for a truly diverse workforce where every employee is respected, included, engaged, offered fair opportunities, and treated equally irrespective of their backgrounds. As an example, we created our regional D&I panels in 2020 to better address issues at local levels and embed accountability within the organisation.

In 2021, the regional D&I panels started regional initiatives on a range of topics, including gender equality, discrimination and bullying prevention, and promoting a safe and inclusive environment. We also launched the Allyship training for our D&I panel members to prepare them to better support, collaborate with, and advocate for people from minority and marginalised groups inside and outside of the workplace.

Our D&I efforts have resulted in an increase in the number of women in senior positions from 14% in 2020 to 18% in 2021.

### Our global campaign to prevent bullying, discrimination, and harassment Speak Up! enables our employees to feel more confident to speak up about their experiences.

In 2021, the campaign focused on psychological safety and wellbeing, encouraging our employees to create open and productive discussions where people feel safe sharing their experiences and perspectives and are receptive to learning. As part of Speak Up!, we launched an educational toolbox of self-learning online modules.

We continued to invest in cross-company mentoring initiatives to support gender equity and inclusiveness.

### We continued to invest in cross-company mentoring initiatives to support gender equity and inclusiveness.

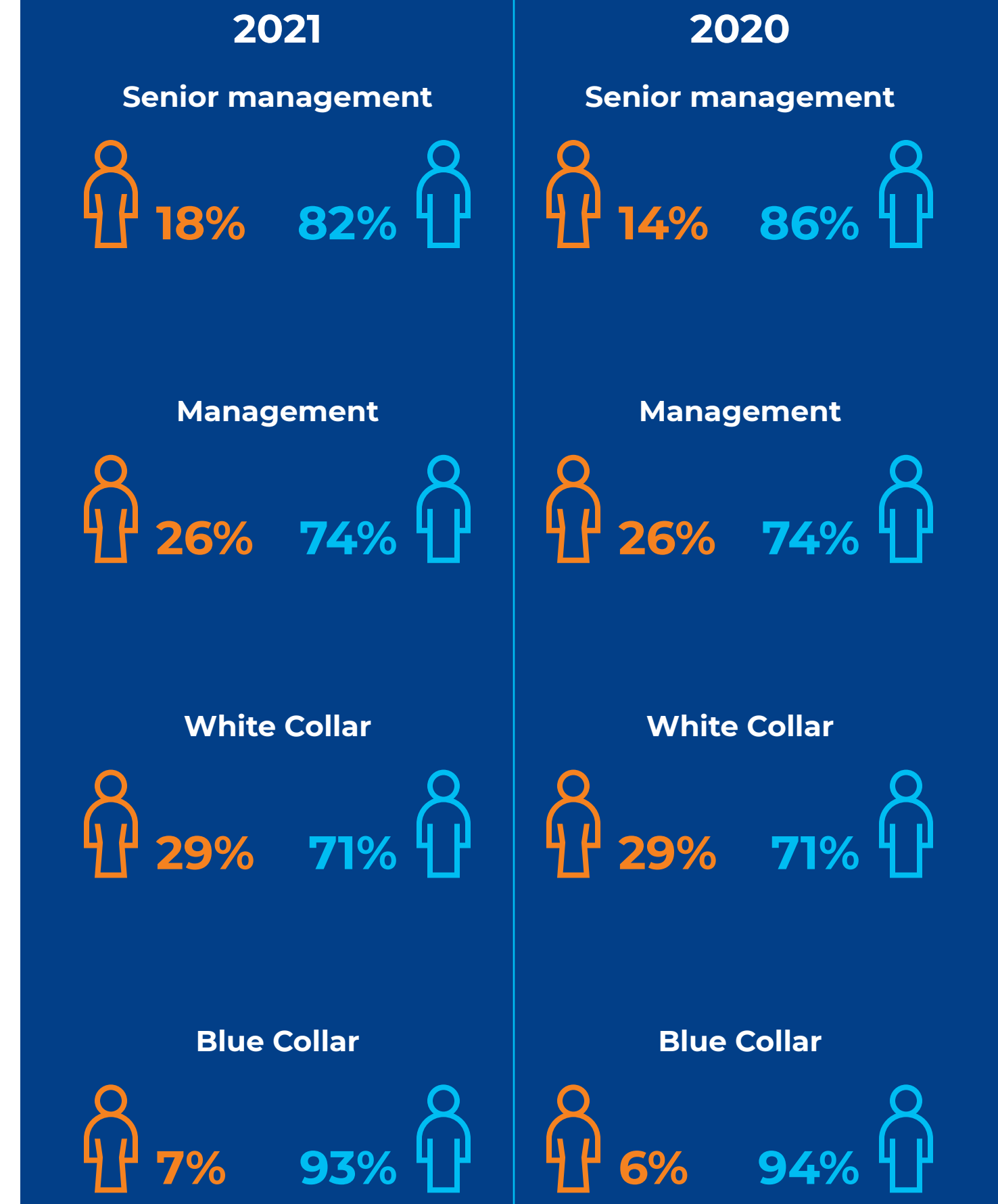
In 2021, we expanded the participation to the Gender Equity cross-company mentoring programme, a structured developmental programme delivered by Moving Ahead<sup>95</sup> that matches women from all levels in the organisation to more senior mentors from another company. From 34 participants in 2020, we moved to 80 mentors and mentees joining the programme in 2021.

For the third year in a row, we offered Inclusive Leadership training which aims to provide essential skills to create an inclusive environment. We have trained a total of 1630 leaders, 430 of those in 2021 and we will continue in 2022 with 20 sessions scheduled.

- [Read about our call for more women to join the food and beverage industry: visit our website](#)
- [Read about the women at Tetra Pak driving innovation: visit our website](#)

### Our D&I Data

Gender representation at all levels of the organisation



<sup>95</sup> Moving Ahead is a D&I social impact organisation dedicated to enabling workplace inclusion.

## Talent Attraction, Development and Engagement

**We continued our focus on talent attraction, development, and engagement. Re-skilling and up-skilling are very important to the sustainability of our business. They are also vital in empowering our people in their career development.**

**We designed a new leadership curriculum as part of our long-term plan to foster transformational leadership and generate cultural change to deliver our Strategy 2030.**

Launched in 2020, we continued the deployment of our leadership training curriculum in 2021, reaching 95% for people leaders and 80% of employees (except for Factory employees, who will be trained in 2022). We received very positive feedback from participants and observed incremental changes in our participants' behaviours through our Success Case Method measurement.

**Since August 2020 we trained 3,000 leaders and 11,500 out of 25,147 employees.**

**We rolled out our SustainABLE programme to 1,560 employees globally.**

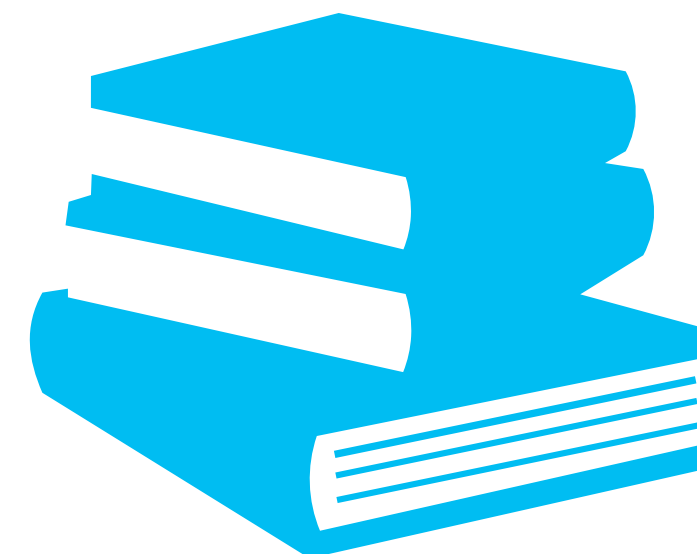
The e-learning programme is tailored to our frontline staff to better prepare themselves to have detailed conversations on sustainability with food and beverage manufacturers, NGOs, and other external stakeholders. SustainABLE covers our strategic areas of climate, circularity, and biodiversity and includes content from various sources, interviews with subject matter experts, podcasts, etc. The feedback received from employees was very positive.

**We organised the first Tetra Pak Learning Conference in 2021 to promote the importance of learning and to give our employees the opportunity to discover new subjects.**

Sustainability was one of the ten learning tracks available, covering topics such as climate, circularity, biodiversity, and sustainability in local markets. The feedback received was positive, with employees saying they are now more aware of the importance of sustainability. Due to the overall positive response, a second Learning Conference was launched in May 2022 and sustainability was kept as one of the learning tracks, covering topics such as the UN Guiding Principles for business and human rights and sustainable innovation.

*“The knowledge I gained has not only shaped my personal attitude towards sustainability in everyday life, but it has also helped me understand better our customers' sustainability goals and challenges.”*

**Brigitta Rainer,**  
Marketing Executive,  
Mid Europe



**We are empowering every employee to be a sustainability ambassador.**

Our ambition is to empower every Tetra Pak employee to be a sustainability advocate. In 2021, we started an internal training programme to help employees understand the meaning of our promise “PROTECTS WHAT'S GOOD™” and how they help to protect food, people, and the planet. Further training modules explain how we protect the planet in the areas of climate, circularity, and biodiversity, and the current sustainability credentials and future goals of our carton packages.

The average score from employees rating this training is above 4.5 out of 5. In April 2021, 19,067 employees responded to an employee engagement pulse survey, with 91.1% (as measured by total favourable scores) stated they have a good understanding of Tetra Pak's sustainability ambitions and 90.3% said they believe strongly in Tetra Pak's sustainability ambitions.

Additional activities are continuing to keep employees informed and engaged on our sustainability journey, including internal communications campaigns, global webcasts and other dialogue forums, and the launch of an employee advocacy platform to help employees engage with stakeholders outside the company on social media.

**We hired 85 graduates from our Future Talent Programme, a global initiative focused on a long-term approach to developing and hiring the next generation of talents to our organisation and building a more diverse workforce.**

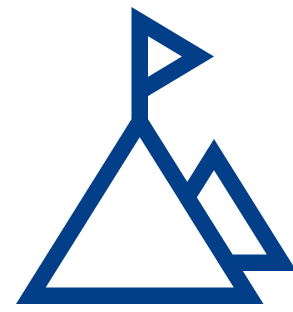
We witnessed a considerable drop in 2021 compared to the 137 graduates hired in 2020, which was largely due to the COVID-19 pandemic resulting in a cautious approach and lower turnover, as well as all international work rotations, a key component of the Programme, being put on hold.

Our Future Talents help us to design and develop innovative ideas across the business. For example, in 2021, a group of seven Future Talents created an innovation programme – Fast Forward Services. The initiative enables everyone working in Tetra Pak Services to pursue their innovative ideas with the opportunity to pitch to a jury and develop their idea into a new product or service.

“*The programme gave me a platform and the tools to shape my career development the way I want. I had the chance to build capabilities and networks in many different areas, from sales to innovation facilitation. It made me a more multi-faceted employee and person. You are given the freedom and trust to work with projects that will create a better future for the company and its people, for example Fast Forward Services.*”

**Alicia Lindkvist,**  
Specialist Product &  
Category Communications,  
Tetra Pak





## Our Achievements in 2021 – Communities

We strive to make a positive social impact along our value chain, working to protect and support the food systems, wellbeing, and livelihoods of the communities where we and our suppliers operate.

### School Feeding Programmes

**As part of the School Feeding Programmes, 61 million children in 41 countries received milk or other nutritious beverages in Tetra Pak packages intermittently during the school year despite shutdowns and food delivery disruptions caused by COVID-19.**

We participate in the development and implementation of School Feeding Programmes around the world, together with our food and beverage manufacturers and in collaboration with governments, aid agencies, NGOs, and others. These Programmes have proven to improve health and stimulate development by making healthy food accessible – a critical component of SDG 2. We work in partnership with these stakeholders and provide technical assistance training in food safety and quality, sharing global best practices in school feeding, and environmental education.

**To read more about positive benefits that school feeding programmes are bringing to children and communities worldwide,**

- **please access the School Feeding Handbook,**
- **visit our website**
- **and watch the video**

In **Mexico**, we have been supporting a School Feeding Programme since 1962, helping to address challenges related to malnutrition, education, and food insecurity. We have been actively involved in supporting manufacturers who produce UHT (ultra-high temperature) milk for the programme – currently, 14 food manufacturers we work with are delivering milk and nutritious beverages to children in schools countrywide.



*Through the School Feeding Programme, we've been able to offer our partners practical support in sharing best practices in food safety and quality used worldwide. We also share best practices in environmental education and recycling in schools as well as promote nutritional awareness.*

**Robert Graves,**  
Managing Director,  
Tetra Pak Mexico

➤ **To read more about the Mexico case, visit our website**



School Feeding Programme, Mexico

**Through our Dairy Hub model, we help build sustainable value chains by training smallholder farmers and creating a link to food and beverage manufacturers to source higher-quality milk, who can establish a more stable supply of milk and provide access to market for the smallholder farmers. This model contributes to SDGs 2, 8, 12, and 17 by creating jobs and increasing incomes for all people along the value chain.**

In 2021, through active Dairy Hub projects, 30,632 farms (99% smallholders) delivered milk to food and beverage manufacturers. Since the start in 2011 with the introduction of the first Dairy Hub, 57,403 farms (98% smallholders) are delivering milk to food and beverage manufacturers in 18 Dairy Hub projects.

Impact data from the first Dairy Hub in **Bangladesh** has shown an average milk yield increase per cow per day of 143%, from 4.45 litres to 10.8 litres, and an average income increase per smallholder farmer per month of 144%, from USD\$100 to USD\$244.

[Find out more about the Dairy Hub projects in Bangladesh here](#)

Since the initiative started in **Kenya** in 2017, about 30,000 beneficiary Kenyan farmers and their families have been able to increase dairy productivity and income while simultaneously providing more women and young people access to life-changing knowledge, skills, and employment in the dairy value chain.

The reference farm project resulted in a 52% increase of total milk production and a 65% increase in milk production per cow. With the average number of cows having stayed the same, the increase in numbers can be attributed to improved practices and management. Average farm income for the reference farms increased 96% in the 12-month project. These results show that with dedicated focus and resources, results can be achieved faster, and impacts can be greater.

[Find out more about the Dairy Hub projects in Kenya here](#)



Dairy Hub, Kenya

**Agnes Kavatha**  
Project Manager,  
Heifer International Kenya



The reference farms project has enhanced the skills, knowledge and competencies of the extension officers involved. I have noticed growth of their confidence and passion for farm advisory work. The farmers who were involved in the project are very happy as they have seen increase in production, profitability and incomes and are also more confident to let other farmers learn from them. I can say that the impact of reference farms project will keep on growing as more and more extension officers and farmers will keep on learning from it.

## “Chile Comparte Vivienda” Campaign with TECHO, Chile

More than 1,700 sheets made from post-consumer recycled carton packages provided insulation for TECHO's social housing development project, benefiting more than 600 people.

Our collaboration with **TECHO**, in **Chile**, supports the organisation in their “Chile Comparte Vivienda” campaign which uses sheets made with post consumption carton packages as the interior lining for social housing construction. This provides housing with a better finish and improved thermal-acoustic conditions.

During 2020 and 2021, more than 1,700 sheets were used, equivalent to about 2 million locally recycled containers. In these two years, 150 houses were built, benefiting more than 600 people. This project demonstrates that recycling not only has an impact on the environment, but also contributes to the economy by creating jobs, driving industrial innovations, and generating a social contribution by improving the quality of life of people in need.

[▶ Please look at the video on the results of this initiative in Chile](#)



<sup>96</sup> The John Tung Foundation focuses on children's health education, aiming to influence the public's dietary habits and to combat diet-related chronic diseases. The Division has been recognised as an important opinion leader in nutrition and food safety related issues among consumers and has strong influence on Taiwan FDA in making food-related policies and regulations, and on education authorities in planning school feeding programmes.

## Waste Pickers Support, Brazil

Tetra Pak Brazil developed a pioneering initiative in collaboration with Cataki connecting waste pickers to recycling cooperatives in the city of São Paulo.

The “Cataki + Longa Vida” project facilitates a bonus system for waste pickers in **Brazil**, providing a subsidy that increases the value of waste material and, consequently, provides a new source of income. The pickers participating in the programme get paid per kilo of packaging collected and delivered to a cooperative. The cooperatives, in turn, receive an identical bonus for the service.

Through the initiative more than 2 million carton packages have been collected and properly destined for recycling, representing 50 tonnes of recycled carton packaging that might otherwise end up in a landfill. Due to the positive results, the initiative is expected to expand to other cities in the future.



Cataki + Longa Vida project, Brazil

## “Protects What's Good” with Food & Nutrition Division of John Tung Foundation, Taiwan

We supported the Food & Nutrition Division<sup>96</sup> of the John Tung Foundation (JTF) in Taiwan to provide school children with educational materials.

The Division launched the “Two servings of milk a day for health” (“2-milks a day”) campaign in **Taiwan** in 2005 to celebrate World School Milk Day. Since then, every year, educational materials have been developed by JTF with our support around the “Protects What's Good” theme. One of these materials include a “2-milks a day” height ruler, which incorporates an easy-to-understand infographics explaining the life cycle of milk, its nutritional information, the use of renewable materials in carton packages, as well as tips for recycling. The height rulers are printed on recycled paper containing fibre from recycled milk cartons.

In 2021, a total of 4,332 copies were delivered to 1,156 schools, engaging around 328,650 teachers and students.



John Tung Foundation, Taiwan

## Kraftsamla Project, India

**We offered trainings in non-traditional female job roles to 30 women in India to build capacity and capabilities, remove barriers, create job opportunities, and integrate these women into the workforce, for instance as fork-lift drivers, technicians, and machine operators.**

This is part of the Kraftsamla project, a collaborative programme with **Swedish** companies like IKEA and Sandvik under the umbrella of the **Swedish Chamber of Commerce in India**, exploring and developing models for sustainable development in the context of community-based collaboration.

The program also set up a Task Force on gender sensitisation where 29 leaders, both women and men, from 20 different Swedish companies in India are currently engaged in an assignment on the theme of building a gender sensitive culture at the workplace, leading seminars for close to 400 senior representatives from more than 50 Swedish companies. The project is now looking to expand to other countries in Asia.

## Ecoyarn Empowers Artisans in Ecuador

**PolyAl yarn made of recycled carton packages generates business opportunities to artisans in Ecuador. This ecological yarn created by Ecuaplastic can be applied in the fabrication of furniture and other interior design items.**

We work closely with Ecuaplastic S.C., the main recycler of polyAl in Ecuador. As part of the cooperation, in the search for new possibilities surrounding the use of the polyAl recycled from used carton packages, Ecoyarn was born.

This ecological yarn has not only benefited the recycling business by being a new way to use the polyAl recovered from our packaging, but also opened new possibilities for artisans in Ecuador. As of now, Ecoyarn has been embraced as a new raw material, illustrating that the circular economy can create new business opportunities. Local artisans using the Ecoyarn said that their business has attracted the interest of new customers who seek to make more conscious and responsible purchases.

[!\[\]\(2b17f17ebbacc911bb0ff784ab641779\_img.jpg\) Watch the video on the results of this initiative in Ecuador](#)



Ecuaplastic, Ecuador





## The Way Forward

We will continue to work towards our ambition to create positive social impact for employees and people across our value chain by providing a safe and inclusive work environment and securing responsible business practices. For this, we plan to act on the following steps moving forward:

Maintain our current D&I efforts and further our work on identifying and removing barriers for all diversity groups and increasing the number of women in senior and blue-collar positions.



The learning and development of our people is and will remain an area of continuous focus. For example, in 2022, we will launch our redesigned Leadership Acceleration Programme, focused on developing our top talent, and will roll out a new training programme tailored to our blue-collar employees.

**Carry on implementing initiatives to make a positive social impact along our value chain, working to protect and support communities where we and our suppliers operate.**



Continue and expand the support of the mental wellbeing of our employees. In 2022, our Mental Wellbeing Programme will focus on the topic of resilience to empower our workforce to build on their resilience to endure and thrive through change and adversity.

# Securing Responsible Business Practices

All businesses – regardless of their structure, geography, industry, or size – have a responsibility to contribute to sustainable development in the countries where they operate, whilst avoiding and addressing negative impacts from their operations<sup>97</sup>. To us, responsible business practices, including good governance, are fundamental to delivering on our promise PROTECTS WHAT'S GOOD™ and to contributing to the UN Sustainable Development Goals (SDGs). As signatories to the UN Global Compact since 2004, we commit to upholding the **UNGC's Ten Principles** on human rights, labour, environment, and anti-corruption across our value chain. By incorporating the Ten Principles into strategies, policies, and procedures, and maintaining a strong culture of integrity, we aim to maximise positive outcomes for people and the planet.

Our purpose, “We commit to making food safe and available, everywhere. And we promise to protect what’s good: protecting food, people and the planet”, shapes our role in society. Internally, this gives us a shared, unifying vision.

Our core values shape our corporate culture and guide our behaviour internally and externally, uniting people from different cultures, countries, and backgrounds, enabling us to treat each other with mutual respect and to work harmoniously together.

Our core values are:

- Customer Focus & Long-term View
- Freedom & Responsibility
- Quality & Innovation
- Partnership & Fun

Our Governance Framework helps us deliver on our purpose and our core values. It also helps us maximise our positive impacts on people and planet to contribute to the SDGs while simultaneously complying with relevant regulations and legislation and behaving ethically and responsibly. The Executive Leadership Team (ELT) is responsible for implementing the Framework, supported by the Corporate Governance Office and a network of local governance, risk, and compliance officers.

All employees, at all levels of the company, are responsible for complying with the Governance Framework in their everyday decisions and actions. Details of the framework are available on our intranet and supported by mandatory e-learning for employees.



<sup>97</sup> <https://mneguidelines.oecd.org/#:~:text=The%20OECD%20Centre%20for%20Responsible,environmental%2C%20labour%20or%20human%20rights>

## Organisation & Decision-making Structure

### Tetra Laval Board of Directors

The Governance Framework also defines the Tetra Laval Group Board's requirements and expectations for the three industry groups and provides guidance throughout the organisation.

The Tetra Laval Group Board has five primary areas of responsibility:

- 1 Development and definition of overall strategies and policies.
- 2 The appointment and succession planning of senior management.
- 3 Corporate governance.
- 4 Financial and operational control. An Audit Committee and a Remuneration Committee support the Board in these functions.
- 5 The Board defines financial targets for the Group's different operations and for total resource allocation within the industry groups.

The Tetra Laval Group Board schedules four regular meetings each year and when circumstances require, additional meetings are held.

[➤ For more information on the Tetra Laval Group Board visit our website](#)

### Tetra Pak Executive Leadership Team (ELT)

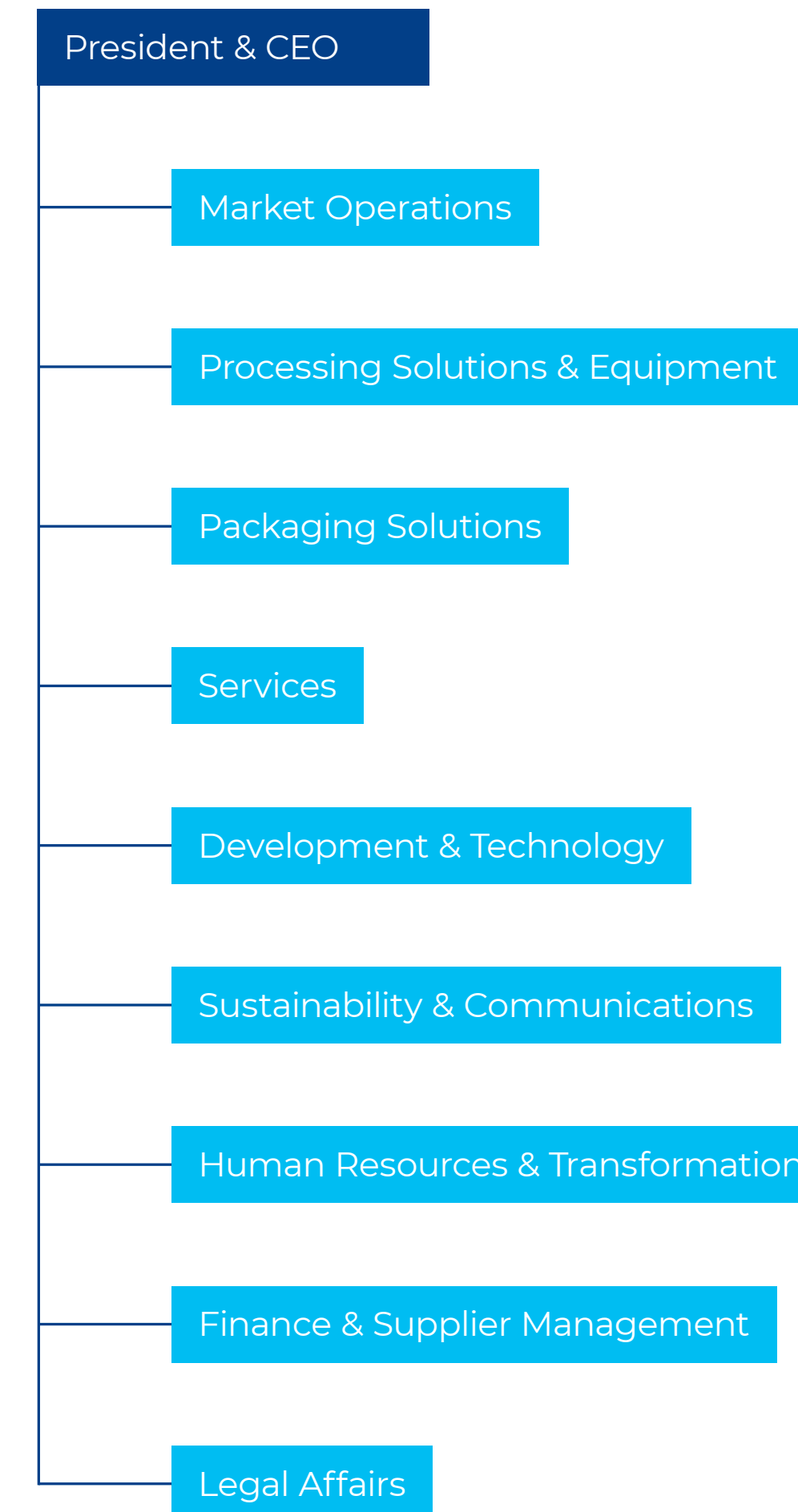
In 2021 we embarked on a change journey for our organisational structure and operating model to simplify how we work and empower our teams to take quicker decisions, deliver better outcomes that can contribute to sustainable development, and achieve our Strategy 2030 goals faster with higher quality, for the best customer experience.

The new members of the ELT started their new roles September 2021 and oversee the nine new units outlined to the right.

### Sustainability Advisory Panel

Our Sustainability Advisory Panel was formed in 2020 to provide us with an 'outside-in' perspective to advise us on our sustainability strategy within the business, broader industry, and beyond. The panel comprises six independent external advisors, who were selected based on their range of experience and expertise deemed necessary to shape and inform a pioneering sustainability agenda that will help us maximise positive impacts for people and planet and achieve our sustainability goals, including our ultimate ambition to create the world's most sustainable food package.

[➤ Read more on our Sustainability Advisory Panel on our website](#)



## Codes of Conduct

### Code of Business Conduct

Our Code of Business Conduct sets out the company's position on working conditions, discrimination, confidentiality, conflicts of interest, financial reporting, compliance, corruption, bribery, child exploitation, and environmental issues. The performance is audited by external auditors as part of our Corporate Governance Framework.

### Code of Business Conduct for Suppliers

Our Code of Business Conduct for Suppliers is an integral part of our supplier onboarding process and purchasing agreements, setting mandatory requirements for our suppliers and their sub-suppliers. It defines our requirements in the areas of human rights and labour practices, occupational health and safety, environmental management, and business integrity.

We work together with our suppliers to ensure that human and labour rights are respected, driving transparency and active communication across the value chain. We expect our suppliers to support our human rights due diligence and take steps to eradicate human suffering in their supply chains. We fulfil the requirements of existing due diligence legislations on business and human rights, in particular the Australian Modern Slavery Act 2018, the UK Modern Slavery Act 2015, and the California Transparency in Supply Chains Act 2012.

## Policies and Procedures

Business-wide, we have more than 50 policies and procedures in place to safeguard responsible business practices and business ethics. We implement policies and procedures across a variety of topics, including food safety, supplier management, and environmental aspects of our business. Below are two examples of business ethics related policies and procedures.

### Corruption: Zero Tolerance

We take a zero-tolerance approach to corruption, bribery, and fraud. We have established an Anti-Corruption Policy which applies to all Tetra Pak Group companies and processes worldwide, including procurement of forest commodities. Each operating unit, corporate function, market area/company and its head or managing director is fully responsible for implementation and enforcement of our anticorruption policy in their respective organisation(s). Combating corruption is an important part of building trust with all our stakeholders and fostering a responsible, transparent business culture.

### Whistleblowing

Anyone within or outside our business can anonymously report actual or suspected breaches of our Code of Business Conduct or any other unethical behaviour directly to either the Corporate Governance Officer or Head of Audit, or to [ethics@tetrapak.com](mailto:ethics@tetrapak.com), without risk of being penalised in any way. Every case of a breach of our Code of Conduct is handled individually and investigated appropriately, depending on its severity. If the incident is criminal, we report it to the relevant authority.



## Risk Management

Risk management is an integral part of every decision we take, to both protect the value of our company and mitigate potential negative impacts on people, society, and the environment. The foundation is our Governance, Risk, and Compliance (GRC) process, which helps our ELT to:

- Conduct our business in compliance with our Code of Business Conduct, policies, procedures and all laws, regulations, and reporting standards
- Identify risks to our tangible and intangible assets
- Manage the identified risks in the most cost-effective way to prioritise our actions
- Ensure that risks are escalated promptly, and decisions are shared across the organisation.

We consider over 70 risk categories, of which more than a dozen are directly linked to sustainability related topics. Risks are prioritised based on their nature, likelihood, and impact, and reported to Business and Market Unit management and to the ELT, with appropriate risks escalated to the Group risk register and Group Board.

### Risk Management Example: Responsible Sourcing Programme

Our Responsible Sourcing Procedure sets out the requirements for all purchasing categories to manage risks in relation to human rights, labour practices, occupational health and safety, environment, and business integrity. The procedure supports our Procurement Policy and is monitored through our governance, risk, and compliance framework. We require suppliers to adhere to our Code of Business Conduct for Suppliers and undertake desk-based evaluations to assess suppliers' compliance and sustainability maturity.

We have established EcoVadis as our preferred methodology for desk-based assessments of environmental, social, and ethical risks of our suppliers, and for driving improvement actions. We also work with Sedex and ask suppliers to conduct site specific Sedex Members Ethical Trade Audits (SMETA) for critical sites or in case of potential risks highlighted from desk-based evaluations or other sources.

To further improve the visibility of sustainability risks in our supply chain, we have started using the new EcoVadis IQ module. The tool offers a mapping of inherent sustainability risks of suppliers, based on their industry and country of operation. By using the EcoVadis IQ module, we will be able to refine our selection model for supplier assessments and provide further integration of sustainability criteria into our sourcing decisions.

By engaging with our suppliers according to our responsible sourcing process, our ambition is to continuously improve supplier performance and secure a sustainable and resilient supplier base.

 **To read more about our work with suppliers, [click here](#)**

## Other Initiatives to Secure Responsible Business Practices

### Country Regulatory Compliance Tool (CORRECT)

In 2021, we implemented CORRECT, a solution to help our local teams to comply with complex and constantly changing country specific laws and regulations in a dynamic, productive, and capable way. For local subject matter experts and specialists, they benefit of a modern user-friendly portal where all the laws are turned into actionable tasks based on business needs for a specific operation and country, which are scheduled and tracked. The system updates monthly giving us up-to-date jurisdiction and compliance details.

### Environmental and Net-Zero Operations (ENZO)

In 2020, we launched our Environmental and Net-Zero Operations (ENZO) project with the aim of enhancing the governance for environmental impact management in our operations to ensure standardised, “joined-up” ways of working across all parts of the organisation. This year, we observed the positive outcomes of ENZO. The project has enabled us to establish a standardised structure for key performance targets and indicators, deployment and reporting, and company-wide awareness of environmental performance, ensuring a culture that strives for zero environmental incidents and impact.

## Responsible Communication & Marketing

As a world-leader in our industry, we want to be a benchmark for trust for the food and beverage industry and consumers alike. We strive to earn and preserve this trust through transparency, openness, and active communication. We conduct marketing and communication of our products, solutions, and services to our customers in the food and beverage industry in appropriate, responsible, and transparent way. At Tetra Pak, we comply with local laws and guidelines on marketing and communication.

We have in place procedures for making environmental claims which support the development of environmental communication for all audiences (including promotional campaigns and advertising) about our portfolio of packaging, equipment, and services. They include core criteria for how to make environmental claims – relevant, clear, accurate, and substantiated – as well as specific criteria for material comparisons, recyclability, renewability, carbon footprint, use of logos, labels, and certifications related claims.

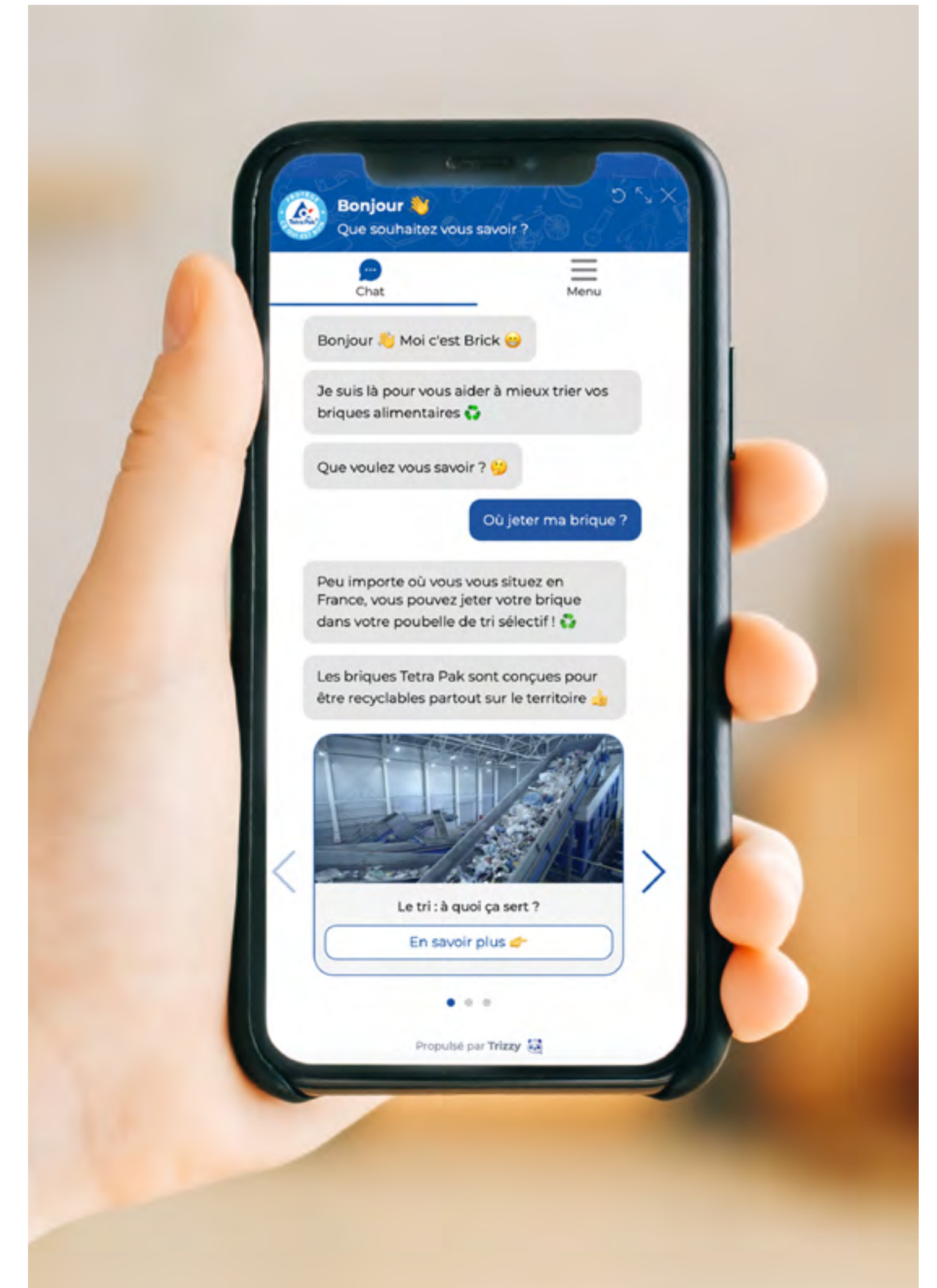
We actively engage with food and beverage manufacturers, industry organisations, NGOs and IGOs, and multi-stakeholder initiatives around the world to raise awareness of sustainability issues, promote good practice and support specific projects.

➤ **Read more about our stakeholder engagement on our website**

➤ **Read more about our collaborations to raise awareness around sustainability issues on our website**

For example, in collaboration with **French** food manufacturer **Orlait** and start-up **Trizzy**, we have developed an integrated virtual assistant through an on-pack QR code to improve customers' awareness of sustainability and recycling. Using chatbot technology, consumers have now the chance to get some information related to sorting, recycling, package composition and packages' certifications (FSCTM, Bonsucro, Carbon Trust). With this initiative, we are contributing to educate our consumers, whilst supporting the circular economy.

➤ **For more information, go to the website**



Digitally connected packages from Orlait

# About this Report

This report comprehensively discloses our approach to sustainability and our environmental, social and governance (ESG) performance in 2021. This report was prepared in accordance with the Global Reporting Initiative (GRI) 2016 Standards: Core Option.

This year, we have also included disclosures in alignment with the Sustainability Accounting Standards Board (SASB) Standard for the Containers & Packaging and Processed Foods industries.

[➔ For more details, please see our GRI Index 2022 on our website](#)



# Tetra Pak U.S. and Canada

2022 Sustainability Report



# Content

## ① Introduction

- > *Message From Our U.S. and Canada President and CEO* 74
- > *Facts & Figures* 76

## ② Food

- > *Piloting Shelf-Stable Milk in Schools* 78
- > *Educating the Industry on Best Practices for Sustainability* 79
- > *Keeping Food Innovation Going* 80

## ③

- > *Taste of Tetra Pak* 82
- > *Core Wellbeing* 83
- > *Recruiting the Best Talent* 84
- > *Diversity, Equity & Inclusion* 85

## ④ Planet

- > *Educating Consumers, Customers and Employees on Sustainability* 87
- > *Making Cartons Even More Sustainable* 89
- > *Reducing Our Manufacturing Impact* 90
- > *Carton Council of North America* 91

# Message From Our U.S. and Canada President and CEO

In 2001, I stepped into our Winsted, Minnesota, production facility for the first time as a process automation engineering intern. This year, shortly after being named President and CEO of Tetra Pak's U.S. and Canada Market, I returned to Winsted to visit with some of my first mentors and our most recent new hires.

To say that a lot has changed since my first day with Tetra Pak would be an understatement. The last two decades have been a time of significant change. From extreme weather conditions and geopolitical risks to economic concerns and a lingering pandemic, we continue to see how closely connected we are as a global community.

While the world around us continues to change at an unprecedented rate, I am proud of Tetra Pak's unrelenting focus on our vision to *make food safe and available, everywhere* while recognizing the gravity of our brand promise to protect what's good for food, people and the planet.

I am pleased to share the 2022 Tetra Pak U.S. and Canada Sustainability Report. The following report demonstrates how our local team is performing in support of Tetra Pak's environmental, social and governance (ESG) strategy.

Making food safe and available everywhere is the cornerstone of our organization. As supply chain shortages and economic concerns plague both the U.S. and Canada, the value of our shelf-stable

processing and packaging solutions continues to grow. One example, highlighted in this report, comes from a pilot study conducted in one of the largest school districts in Texas. The study results demonstrate how choosing our shelf-stable packaging can help schools meet the nutritional needs of more students, while reducing costs and becoming more sustainable by reducing food waste and energy consumption.

Beyond food safety and availability, we look at every aspect of our work through the lens of sustainability. As a society, we continue to witness the effects of our actions on the environment. At Tetra Pak, we're committed to minimizing our impact, and our market continues to improve our operations and offerings in support of this commitment.

Protecting what's good for others begins with protecting what's good for the individuals who lend their knowledge, talents and passion to our vision. In addition to our ongoing health and wellbeing offerings, we are working to further establish a culture of inclusivity where every member of our team feels seen, heard and valued.

The tangible effect of the work we do touches millions of lives around the world every day. As an employee who has experienced this organization through several roles and perspectives, I can attest that it is our unified focus on protecting food, people and the planet that drives each of us, and makes Tetra Pak an industry leader for high-quality, innovative and sustainable packaging, processing and services solutions.

On behalf of our team of more than 1,500 employees in the U.S. and Canada, I am honored to share a sampling of our accomplishments that demonstrate our collective momentum to protect what's good.



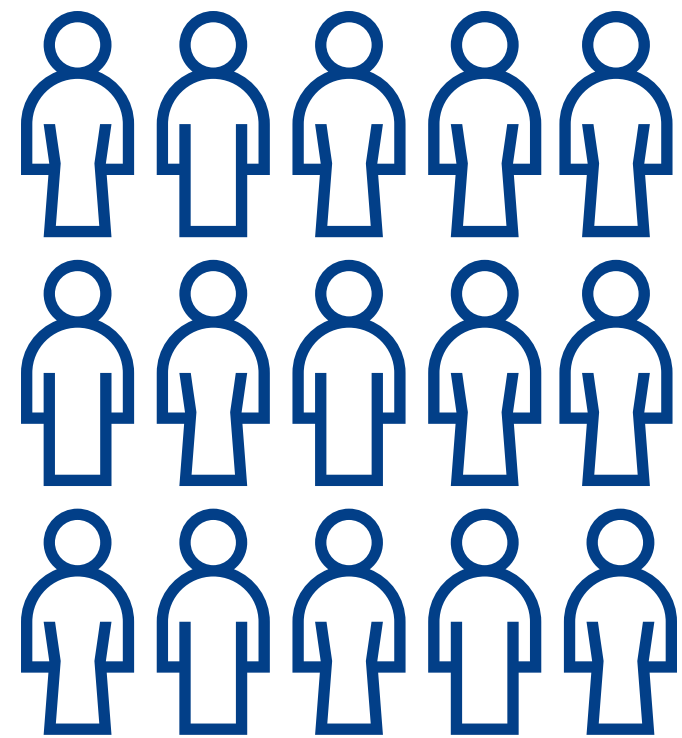
**Seth Teply**

President and CEO,  
Tetra Pak U.S. and Canada



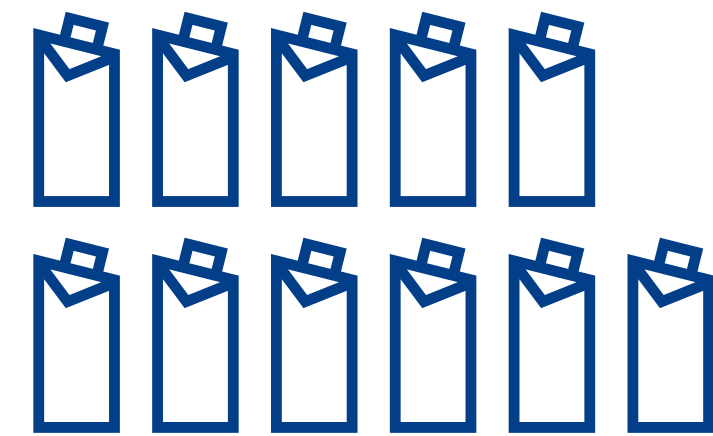
# Facts & Figures

A round-up of key numbers from Tetra Pak U.S. and Canada in 2021



**1,550**

employees



**11.4 billion**

Tetra Pak® packages sold in 2021

**5**

production plants

**6**

sales offices

**11,800**

processing units in operation

**275**

packaging machines in operation

# Food

- **Piloting Shelf-Stable Milk in Schools** 78
- **Educating the Industry on Best Practices for Sustainability** 79
- **Keeping Food Innovation Going** 80



# Food

## Piloting Shelf-Stable Milk in Schools

Milk is an important part of school meals — it can benefit students' overall health and is packed with 13 essential nutrients, including protein, to combat hunger. Educators report that school meals **can help students** with lack of energy, poor academic performance and an inability to concentrate. As a result, schools purchase a significant amount of milk.

The Dallas (Texas) Independent School District (Dallas ISD) supplies its students with more than 1.5 million gallons (5.7 million liters) of milk each year. But the logistics of receiving and storing all that milk can be a challenge for schools, which typically have tight budgets and limited chilled storage capacity. At the beginning of 2022, Dallas ISD, Tetra Pak, Dairy Management Inc. (DMI) and DairyMAX launched a shelf-stable dairy milk pilot in the district.

### What is shelf-stable milk?

- Shelf-stable milk is the same as refrigerated milk, packaged in an aseptic carton.
- To allow for a shelf life of more than six months with no refrigeration needed before opening, the milk also undergoes **Ultra High Temperature (UHT) processing**.
- UHT processing combined with an aseptic carton retains the nutritional value of the milk without the use of additives or preservatives.



The pilot with Dallas ISD took place over five months and looked at the impact of switching from chilled to shelf-stable milk in nine elementary schools. The results of the study show cost savings, fewer deliveries of milk and increased consumption:

- A projected savings of **six cents (\$0.06)** per serving, specific to supply chain costs.
- Deliveries of milk were reduced from five times a week from the milk processor to twice a week by the district. Fewer deliveries resulted in a more than **50% reduction** of truck miles for Dallas ISD.
- Milk consumption increased **6% and waste declined 5%**.

Additionally, shelf-stable milk has a lower carbon footprint than its chilled counterpart because it does not rely on refrigerated distribution networks and storage, both of which demand electricity. Because shelf-stable milk does not need refrigeration before opening it has less risk of spoilage, making it convenient for schools in rural areas, as well as after-school and food backpack programs.

Two other school districts previously conducted similar pilots, and are continuing to use shelf-stable milk, four and six years later. These districts report they've been able to reduce the challenges associated with chilled milk, such as spoilage. One director said shelf-stable milk has made their operations easier and was a worthwhile change. Other school districts have expressed interest in conducting similar pilot studies in the 2022-2023 school year.

## Educating the Industry on Best Practices for Sustainability

As part of our efforts to make sure food is produced as sustainably as possible, we're working to share best practices and technology updates with the industry.

The International Society of Beverage Technologists hosted their annual BevTech event in North Texas in May 2022 and invited Tetra Pak to educate attendees on aseptic processing and packaging. Jordan Fengel, Tetra Pak U.S. and Canada Sustainability Manager, was featured on the main stage and spoke about how Tetra Pak is meeting today's sustainability demands while looking toward the future. As part of the conference, attendees were invited to Tetra Pak's Denton, Texas, facility to learn more. Twenty BevTech attendees received a tour of the converting factory where our carton packaging material is produced, as well as the Product Development Center and Customer Innovation Center. This tour demonstrated many of Tetra Pak's best-in-class operations and showcased our innovative processing and packaging equipment to professionals in the beverage industry.

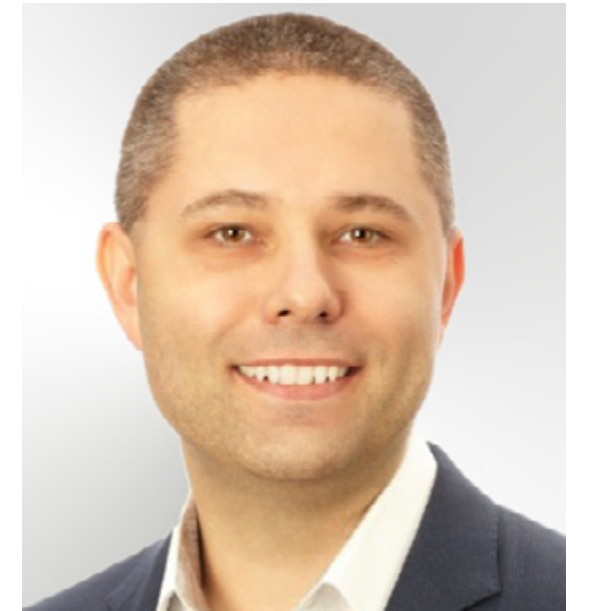
Sasha Ilyukhin, Vice President Customer Service Operations - Americas, Tetra Pak, shared with **Food Technology magazine** how advances in technology such as connected sensors and data analytics can help food producers improve efficiency, quality and safety.

Ilyukhin also teamed up with Jason Pelz, Vice President of Sustainability, Tetra Pak U.S., Canada, Central America and the Caribbean, for an episode of the **Future of Field Service** podcast. They discussed the many opportunities for food and beverage manufacturers to increase sustainability and reduce waste through automation systems, predictive maintenance, Total Productive Maintenance (TPM) and more.

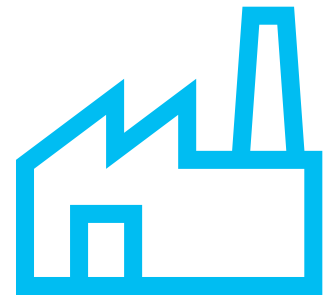
Another area where Tetra Pak can help its customers become more sustainable is through sustainable carton packaging. Seth Teply, President and CEO, Tetra Pak U.S. and Canada, was a guest on the International Dairy Foods Association's **The Dairy Download** podcast, where he shared the trends Tetra Pak is seeing in the demand for sustainable packaging, and how Tetra Pak is innovating to make its packages even more sustainable and renewable.

Fengel was also a guest on the **Sustainable Packaging** podcast where he shared Tetra Pak's approach to packaging sustainability, including sustainable materials, recyclability, and the role of shelf-stable cartons in addressing food waste.

**Sasha Ilyukhin,**  
Vice President Customer Service  
Operations - Americas,  
Tetra Pak



Combined with the pressing environmental issues and human components, industries are now at the crossroads to contemplate the future of manufacturing within the upcoming fifth industrial paradigm, which promises the use of technology for more sustainable, resilient and equitable cyber-physical systems.



## Keeping Food Innovation Going

Tetra Pak's Product Development Centers are where food innovation is brought to life. These unique facilities give our customers a place to test new recipes on a small scale. During the pandemic, the Product Development Center in Denton, Texas, knew food innovation needed to continue and created a solution for customers who were unable to travel to them. They began hosting virtual trials so customers could participate remotely. Not only did this allow food innovation to continue, but it also reduced carbon dioxide emissions by eliminating our customers' need to travel.

Even with travel increasing, about half of our customers are still choosing this virtual option, saving approximately 100 tons of CO<sub>2</sub> emissions in the last year.





# People

- Taste of Tetra Pak 82
- Core Wellbeing 83
- Recruiting the Best Talent 84
- Diversity, Equity & Inclusion 85

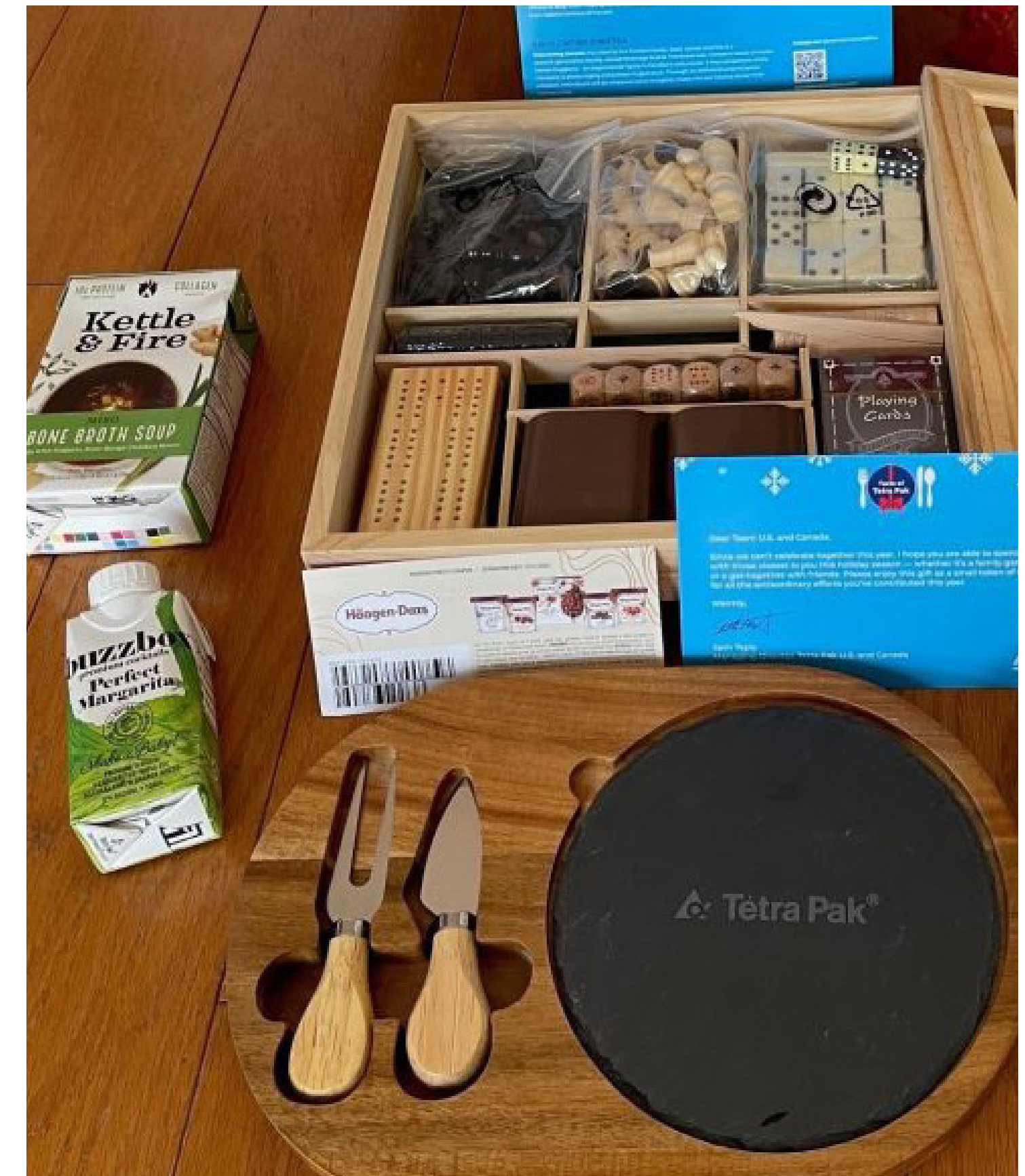


# People

## Taste of Tetra Pak

In summer 2021, we launched Taste of Tetra Pak sample boxes to keep our employees, many of them working remotely or hybrid, connected to our work in packaging, processing and services.

The curated boxes give employees and their friends and families the opportunity to sample many of the new, innovative products that Tetra Pak helped make possible. And because they're all packaged in shelf-stable Tetra Pak® cartons, they can be easily shipped to employees' homes without refrigeration!



## Core Wellbeing

In the U.S. and Canada, Tetra Pak employees can take advantage of Core Wellbeing, a program dedicated to helping all employees and their loved ones achieve, maintain and protect their personal health and wellbeing goals so they can protect what’s good for others.

Now in its third year, the program continues to reinforce the five pillars of total wellbeing (physical, mental, financial, community and social) with a variety of resources and activities. In the last year, nearly a quarter of all U.S. and Canada employees participated in at least one Core Wellbeing activity. Programming ranges from physical challenges like Move Your Way to Mental Wellbeing Week to Financial Literacy Month with educational activities from our retirement plan providers.

During Mental Health Awareness Month, Core Wellbeing dedicated one week to the topic of mental health. Employees were invited to wear green in support of mental health awareness and to participate in a BINGO game to help identify simple ways to prioritize mental wellbeing every day. In addition to daily communications containing resources and tools to support mental wellbeing, many Tetra Pak sites hosted a Wellness Wednesday event with chair massages, organic juices, healthy snacks and printed resources to help support every employee’s mental wellbeing.



Employee feedback on Core Wellbeing programs has been overwhelmingly positive, with **98% of participants** saying it’s important or very important for Tetra Pak to provide programs such as these.

*“It’s so important to have these reminders (or info-sharing opportunities) with employees! Keep it up!! Love it!”*

*“Opened my eyes on being more tuned in to things to do to be on top of my health.”*

*“Good explanation of mental health and how it affects each person differently. Liked some of the tools given to help with mental health and stress.”*

Core Wellbeing programs often emphasize the importance of wellbeing visits and the mental wellbeing benefits available through our health plans. One of the key messages of the program’s mental wellbeing pillar is that it is ok to not be ok. Since the start of Core Wellbeing, mental health visits have increased by 14%. This demonstrates that employees are now more familiar with the benefits available to them and recognize the importance of proactive self-care.



## Recruiting the Best Talent

Every person at Tetra Pak is a vital part of our vision to make food safe and available, everywhere. We're implementing new ways to ensure that we have the right people with the right skills to make this vision possible.

Sometimes the best way to recruit new talent is to ask current employees what they love about their job — and that's exactly what we did at our site in Winsted, Minnesota. We used employee insights to create a series of videos highlighting what it's like to work at Tetra Pak and the opportunities for growth within the company.

### Working at Tetra Pak



### Tetra Pak Growth Opportunities



Our Future Talent and internship programs continue to be an excellent way to introduce people just starting their career to the many possibilities in the food and beverage industry. Future Talent gives recent graduates an opportunity to become the next generation of leaders in our industry and offers both a technical and leadership track.

**Tergel Erdenebat,**  
Cheese Application Expert,  
Tetra Pak U.S. and Canada



The number one thing I love and appreciate about Tetra Pak is they've given me a role where I can wake up in the morning and be excited to go to work because every day is different than the day before.

**Samir Waliandy,**  
Preventative Maintenance (PM)  
Area Engineer,  
Tetra Pak U.S. and Canada



Tetra Pak was my first career stop. I chose Tetra Pak because the Future Talent Program gave me the opportunity to learn my first year on the job and Tetra Pak was willing to pay for my automation certifications. I saw that this was a great opportunity because those courses stay with me for life.

## Diversity, Equity & Inclusion

Tetra Pak is committed to Diversity, Equity & Inclusion (DE&I) within the organization. In the U.S. and Canada, we are further supporting this effort by investing in a local DE&I roadmap. Together with an outside consultant, we are gathering insights from employees via volunteer focus groups and surveys. This information will be used to identify opportunities for growth and shape our DE&I strategy in the U.S. and Canada.

Julia Luscher, Vice President Marketing, Tetra Pak, was a featured speaker at Sustainable Brands '21's Women's Leadership Lunch. One hundred and fifty female leaders shared challenges, successes and best practices for women in the sustainability field.

**Julia Luscher**  
Vice President Marketing,  
Tetra Pak



Diversity brings new perspectives, fresh ideas and better innovation. At Tetra Pak, we are 100% supportive of women in the food and beverage industry, but we continue to see gender gaps. So, it is our responsibility to make sure that we try to bridge those gaps fairly but ethically.



# Planet

- ④ Educating Consumers, Customers and Employees on Sustainability 87
- ④ Making Cartons Even More Sustainable 89
- ④ Reducing Our Manufacturing Impact 90
- ④ Carton Council of North America 91



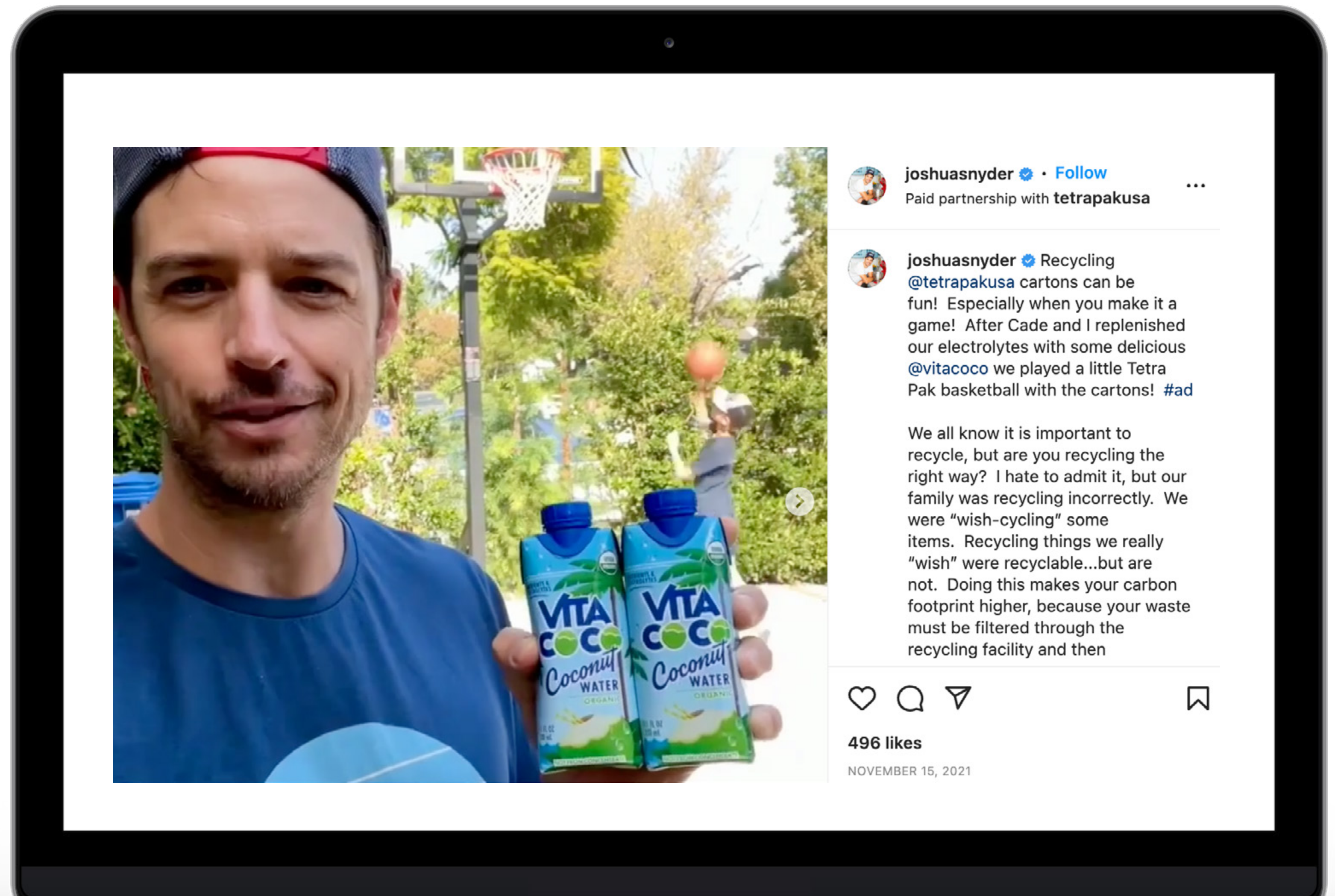
# Planet

## Educating Consumers, Customers and Employees on Sustainability

Educating consumers about the sustainability benefits and recyclability of cartons is one of the primary ways we can keep cartons out of landfills. Tetra Pak works with influencers, customers and employees in a number of ways to share these kinds of messages.

To reach a wide variety of consumers, Tetra Pak partnered with five social media influencers to introduce their followers to Tetra Pak and share why our shelf-stable cartons are their preferred packaging for many of their favorite foods and beverages. Content included healthy recipes, education on the benefits of renewable materials in cartons and tips on how to properly recycle cartons.

One of the most important ways end consumers learn about packaging sustainability is from the brands that use our carton packaging. Angela Peterson, Communications Manager, Tetra Pak U.S. and Canada, teamed up with Marissa Golison, Director of Sustainability, Compass Group USA, for a two-part series on the **unPACKed** podcast on how brands can approach sustainability with consumers. They also addressed strategies for on-package sustainability messaging that appeals to consumers.



We used America Recycles Day (Nov. 15) as an opportunity to host educational events for our employees and customers. Employees participated in an interactive webinar on carton recycling that included the latest updates on carton recycling from our sustainability team, carton recycling trivia and a Q&A on recycling with Waste Management, including how their organization values used beverage cartons.

In addition to offering our customers sustainable packaging options, we believe it is important to share the facts on carton recycling so they can share them with consumers. With this in mind, we hosted a customer webinar for America Recycles Day that included an in-depth presentation by our sustainability team on carton recycling today and innovations for the future. The webinar also marked the launch of the customer communications toolkit for all customers in the U.S. and Canada. The toolkit provides guidelines on how brands can communicate all aspects of the sustainability benefits of Tetra Pak® cartons — both on- and off-pack. More than 55 customers attended the America Recycles Day webinar.

Beyond carton recycling, we also hosted two electronics recycling events at our U.S. and Canada headquarters in Denton, Texas. In total, **7,103** pounds (3,222 kilograms) of electronics were collected from employees and around the campus to be recycled **instead of going to a landfill.**



Your Tetra Pak® Toolkit:

# Promoting your product & its package

 Tetra Pak®  
PROTECTS WHAT'S GOOD



## Making Cartons Even More Sustainable

As demand for sustainable packaging continues to grow, we've expanded our production of shelf-stable cartons that use more renewable materials. Our factory in Denton, Texas, can now produce Tetra Pak® cartons made with sugarcane-based polyethylene (PE) coatings. Cartons with plant-based PE can come with a plant-based cap, also derived from sugarcane. Plant-based PE offers the same recyclability, functionality and food protection as traditional polymers, only made from renewable materials with a lower climate impact.

**Jason Pelz,**  
Vice President of Sustainability,  
Tetra Pak U.S., Canada, Central America  
and the Caribbean



This is another step forward for our customers dedicated to bringing more sustainable options to their North American consumers.

Tetra Pak® cartons with plant-based PE coatings have previously been available from other Tetra Pak factories in France and Brazil. By bringing this capability to Denton, we're increasing the share of renewable material in our packages manufactured in North America and making this option more accessible to our local customers.

Packaging made with plant-based PE does not require any modifications to existing filling equipment, and customers have the option to display the Bonsucro Chain of Custody Standard seal on-pack.

Another sustainability initiative at the Denton factory is reducing the width of the rolls of paperboard and aluminum foil used to produce carton material. This reduction is possible because the factory can now print closer to the edge of the paperboard, allowing us to reduce waste and maintain the same packaging specifications our customers expect. We anticipate this initiative will reduce our usage of both paperboard and aluminum foil by about 1.5%.



## Reducing Our Manufacturing Impact

Improving our factories' operations plays a significant role in reducing Tetra Pak's overall environmental footprint. We've made several improvements to our manufacturing facilities, including:

- Monitoring performance to minimize waste and energy usage. We monitor this using an indicator called Mean Time Between Intervention, or MTBI. This helps us understand the performance of each piece of equipment and how effectively energy is being used.
- Installing a new building management system for chillers and HVAC equipment to monitor usage and ensure we're using these resources wisely.
- Upgrading lighting to energy-efficient LED bulbs in the warehouse and production areas.



## Carton Council of North America



Since 2009, the Carton Council of North America has worked to deliver long-term collaborative solutions to divert valuable cartons from landfills to recycling programs. The organization is made up of the major producers of carton packaging, including Tetra Pak.

### Increasing access to carton recycling

Thanks to the Carton Council's efforts, carton recycling access is being added to more local recycling programs. In the last 12 months, 408 new communities have added carton recycling, including Fayette County, Kentucky, and several new areas of Georgia including DeKalb and Cobb Counties.

### Community Education Awards

The Carton Council of North America launched its first Community Education Awards, a program designed to improve resident communications on recycling, with a special focus on food and beverage cartons. Communities that participated received ongoing information to support their communications and marketing efforts throughout the year, including monthly webinars with communications experts. Participating communities showed that their websites accurately and clearly defined carton recycling, along with at least two other examples of communications and/or marketing activities conducted during the year to promote recycling, including cartons.

Twenty communities participated in the first year and successfully submitted their results, earning them each a \$2,000 grant to help with future education efforts.



### Sustain Dane Master Recycler Program

The Carton Council continued its work with Sustain Dane, a nonprofit organization that works to build a more sustainable future for Dane County, Wisconsin, through its ongoing Master Recycler program. The program helps everyday people become recycling experts so they can share their knowledge with others. More than 44,000 people in the community have learned about recycling through the program, and feedback about the program continues to be positive.

The city of Madison (Dane County), has reported a decrease in recycling contamination from **18.9% to 12.8%**. While this may be caused by a variety of factors, the city continues to track progress and explore ways to test the impact of the Master Recycler program.



Sustain Dane is now working with the Latino Academy of Workforce Development in Madison to create a Master Recycler program that is culturally relevant for the Latinx community and offered in Spanish.

### Recycling infrastructure improvements in Michigan

Michigan-based paper mill Great Lakes Tissue Company sought to recycle more food and beverage cartons and to find a better use for the small percentage of polyethylene (plastic) and poly/aluminum in cartons. This led to a collaboration between Great Lakes Tissue Company, the Carton Council of North America, and the Michigan Department of Environment, Great Lakes, and Energy (EGLE), a part of NextCycle Michigan, to help improve the infrastructure for recycling and manufacturing in the state. The Michigan Department of Agriculture and Rural Development (MDARD) also provided matching funds for the project.

Great Lakes Tissue Company received funds to secure new equipment to better handle the polyethylene and poly/aluminum residual from the pulping process used to recycle cartons. In addition to allowing the company to process more cartons, the new equipment removes more water from the polyethylene and poly/aluminum, decreasing its weight significantly and allowing for more efficient transport with lower greenhouse gas emissions. The poly/aluminum residue is currently sent to St. Mary's Cement in Charlevoix, Michigan, where it offsets the use of coal as fuel.

As part of this process, the company is able to recapture the water and recycle it back into the process for reuse. The new equipment has reduced the water content in the residual material from 65% to 17%.



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