



↓  
**39%**  
GHG reduction  
in our operations  
Scopes 1, 2 and business travel

**66**  
million  
children

in 44 countries  
participated in school  
feeding programmes

**1.2**  
million  
tonnes  
of carton packages  
collected and sent  
for recycling



# Sustainability report FY22

# Contents

<b>Committed to our future</b>	<b>3</b>	<b>Our focus areas</b>	<b>12</b>	<b>Spotlight stories</b>	<b>71</b>
Message from the CEO	4	Food systems	13	Innovating to transform food systems	72
Executive summary	6	Circularity	22	Collection and recycling: Keeping valuable materials in use	74
About us	9	Climate	33	Collaborating with suppliers	77
Our approach to sustainability	10	Nature	44		
Our sustainability priorities	11	Social sustainability	55		
		Responsible business practices	67		

**About this report**

*This report is prepared in accordance with the GRI Standards<sup>1</sup> and summarises Tetra Pak's Group sustainability performance for the period 1 January 2022–31 December 2022. It covers Tetra Pak's value chain and provides an update on activities and ongoing work to measure our progress.*

[For more details, see our GRI Index FY22](#)

*The Tetra Pak Group<sup>2</sup> includes the business activities performed by all entities operating under the Tetra Pak brand. "We" in this report refers to the Tetra Pak Group. Tetra Pak's value chain includes the sourcing of raw materials for equipment and packaging material, manufacturing, transportation of products to customer sites, product use at customer sites, and product end-of-life.*

**Restatements of information**

*In July 2022 Tetra Pak announced the divestment of its Russian business ([read more here](#)). This structural change in the organisation triggered a base year recalculation for our climate data. Russia is also excluded from our internal monitoring of collection and recycling and is not part of the global recycling rate or other environmental operational performance data, i.e., waste and water.*

**External assurance**

*Tetra Pak's scopes 1, 2 and 3 greenhouse gas (GHG) emissions data have received limited assurance by a third party since 2013.*

[READ MORE](#)

<sup>1</sup> The Global Reporting Initiative (GRI) is an international independent standards organisation  
<sup>2</sup> The Tetra Pak Group includes all Tetra Pak entities. An overview of all Tetra Pak's headquarters, offices and sites can be found here: <https://www.tetrapak.com/contact-us>

# Committed to our future

## Contents

Message from the CEO	4
Executive summary	6
About us	9
Our approach to sustainability	10
Our sustainability priorities	11

# Message from the CEO

As part of our continued commitment to the future and in line with our strategic ambition to lead the sustainability transformation, we have taken a holistic approach across five interconnected areas where we can contribute the most: food systems, circularity, climate, nature, and social sustainability.

The year 2022 was marked by considerable uncertainty and macro-economic challenges. The after-effects of COVID-19 remained, coupled with supply chain issues and rising input costs. Russia's invasion of Ukraine had both direct and indirect consequences. Weather events such as record heat waves, droughts and floods also had a far-reaching impact in several countries. All these factors have affected the global community in different ways, especially with an inflationary environment that is driving food prices and the cost of living up, resulting in food insecurity in many parts of the world.

Against this backdrop, the role of the food industry has become even more important

- to feed a growing population sustainably. Being a leading food processing and packaging solutions company, we see ourselves at the forefront, strongly committed to support our customers in keeping food supply chains running, supporting the well-being and welfare of our employees and the communities we operate in, while mitigating our environmental impact.

The current operating environment has emphasised the need for innovative and integrated solutions that can meet the scale and speed of change required to strengthen food security, decarbonise food systems and fight climate change, in a way that leaves no one behind. Therefore, as

part of our continued commitment to the future and in line with our strategic ambition to lead the sustainability transformation within our industry, we have taken a holistic approach across five interconnected and interdependent areas where we can contribute the most: food systems, circularity, climate, nature, and social sustainability.

Towards that end, we have been accelerating our efforts to help build resilient and sustainable food value chains that improve livelihoods, reduce environmental impact, and, ultimately, help provide healthy diets to the global community. For decades, our technology and solutions have contributed to making



**Adolfo Orive,**  
President & CEO,  
Tetra Pak

food accessible even in remote areas with insufficient cold chains, protecting the quality and safety of perishable foods, while extending their shelf life<sup>1</sup>.

In parallel, we have been investing heavily to significantly enhance the sustainability profile of our packaging and processing solutions. For instance, we plan to invest €100 million annually over the next five to ten years in the research and development of packages that are made with a simplified material structure, to strengthen recyclability and increase renewable content, without compromising on food safety<sup>2</sup>.

Additionally, we intend to invest up to €40 million annually to increase the collection and recycling of carton packages<sup>3</sup> and support the ambition of upcoming regulations to enable a step change in the industry's transformation.

Decarbonising<sup>4</sup> food systems is another critical priority, for which we have taken a complete value chain perspective – from working upstream with our suppliers on raw materials, decreasing greenhouse gas (GHG) emissions in our own operations, to working with customers downstream on the impact of their operations, sold equipment and end-of-life.

Last year, we crossed a new milestone in our journey to develop the world's most sustainable food package<sup>5</sup>, by testing a new fibre-based barrier with the aim to replace the aluminium foil layer – a first within food carton packages distributed under ambient conditions. We made significant progress in our net-zero journey and achieved 39% reduction in GHG in our own operations<sup>6</sup> while our efforts to support collection and recycling helped send 1.2 million tonnes<sup>7</sup> of carton packages for recycling globally.

Furthermore, to manage and mitigate our impact on nature, we have been collaborating with our suppliers<sup>8</sup> and customers to champion responsible sourcing practices, contribute to global water resilience<sup>9</sup> as well as conserve and restore ecosystems<sup>10</sup>.

We remain committed to respecting human rights across our operations and the value chain, in line with the [UN Guiding Principles on Business and Human Rights](#).

Maintaining focus on promoting diversity, equity and inclusion (DE&I) within our organisation, we continued to progress in several areas – improving women representation in senior positions and in leadership programmes; driving awareness and actions around fostering inclusiveness; initiating and accelerating various programmes to expand our DE&I agenda, going beyond gender and towards securing equal opportunities for all.

In the last year, we responded swiftly through contributions in cash and kind, to situations requiring urgent humanitarian relief efforts, for instance during the war in Ukraine and the natural disasters in Pakistan, Syria and Türkiye.

We are proud of our team and the stakeholders we work with, whose hard work, drive and passion have ensured supply chain continuity amidst increasing challenges, serving as an inspiration to us all. With a strong commitment to the future, we will continue to drive ourselves and others to work ever more closely and find sustainable solutions to the challenges we face as a society. After all, this is core to our purpose: “We commit to making food safe and available, everywhere. And we promise to protect what's good: food, people, and the planet.”

<sup>1</sup> <https://www.tetrapak.com/campaigns/go-nature-go-carton/overview/foodsystems>

<sup>2</sup> <https://www.tetrapak.com/campaigns/go-nature-go-carton/sustainable-solutions/packaging>

<sup>3</sup> <https://www.tetrapak.com/campaigns/go-nature-go-carton/overview/circularity>

<sup>4</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. Scope 1 and 2 GHG emissions combined were reduced by 27% compared to our 2019 baseline. Tetra Pak operations = Scopes 1, 2 and business travel, our value chain = Scopes 1, 2 and 3.

<sup>5</sup> This means creating cartons that are fully made of renewable or re-cycled materials, that are responsibly sourced, thereby helping to protect and restore our planet's climate, resources and biodiversity; contributing towards carbon-neutral production and distribution; are convenient and safe, therefore helping to enable a resilient food system; and are fully recyclable.

<sup>6</sup> <https://www.tetrapak.com/sustainability/measuring-and-reporting/sustainability-performance-data>

<sup>7</sup> For the reported carton packages collected for recycling we use, where available, official publicly available data from renowned sources such as governmental agency, registered recovery organization, nationwide industry association, NGO etc. reported on a regular basis using a consistent approach.

<sup>8</sup> <https://www.tetrapak.com/campaigns/go-nature-go-carton/actions/decarbonisation>

<sup>9</sup> <https://www.tetrapak.com/about-tetra-pak/stories/sustainable-water-management>

<sup>10</sup> <https://www.tetrapak.com/campaigns/go-nature-go-carton/overview/biodiversity>

# Executive summary

We continuously monitor our environmental and social sustainability progress and review our targets and actions to make sure they meet our ambitions and are in line with best practices and the latest science. Each chapter in this Report describes the work we are doing to address the challenges across the five focus areas of food systems, nature, climate, circularity, and social sustainability, including our ambitions, progress and next steps.



## Food systems 2022

### Highlights

**66** 

**MILLION CHILDREN**

in 44 countries participated in school feeding programmes

[READ MORE](#)

**43,939**

**FARMERS**

(96.2% smallholders) delivered milk to dairies in 22 Dairy Hub projects

[READ MORE](#)

**NEW PROCESSING METHOD**

for soya drinks

**TECHNOLOGY TO TRANSFORM**

brewer's spent grain into a plant-based beverage

[READ MORE](#)

### Ambition

Contribute to secure, resilient, and sustainable food systems<sup>1</sup> that provide access to safe, affordable, and nutritious food, and minimise food loss and food waste across our value chain

### Actions & Targets

Advocate for secure, resilient, and sustainable food system solutions and form or join alliances supporting systems-level change

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

Reduce food waste of our best practice processing lines by 50% by 2030 compared to 2019

### What's next

- In 2023, establish four food system transformation pathways and targets.
- Continue developing innovative food processing technologies to support food and beverage manufacturers in creating nutritious foods, including sustainable ingredients, plant-based, and alternative protein substitutes.
- Expand participation in existing School Feeding Programmes and support the implementation of new programmes in markets where vulnerable children need access to nutritious foods.
- Enhance the impact of the Dairy Hub model by continuing to build sustainable programmes thereby further cascading knowledge and technical training to dairy farmers.
- Continue to enhance transparency, accountability, and quality control across the entire food processing and packaging value chain.

<sup>1</sup> Crippa, M. et al. Food systems are responsible for a third of global anthropogenic GHG emissions. (2021). Source: <https://www.nature.com/articles/s43016-021-00225-9>



## Circularity 2022

### Highlights

~€30

MILLION INVESTED IN collection and recycling of carton packages

[READ MORE](#)

1.2M<sup>1</sup>

MILLION TONNES

of carton packages collected and sent for recycling

[READ MORE](#)

2022

Testing of a fibre-based barrier to substitute the aluminium foil layer in aseptic cartons

[READ MORE](#)

### Ambition

Drive circular solutions<sup>2</sup> by designing recyclable food and beverage packaging, using recycled and renewable materials, and expanding collection and recycling to keep materials in use and out of landfills

### Actions & Targets

Design our equipment for food processing and packaging to be maintained, leased, reused, repaired, and upgraded to extend their lifespan

Design packaging that is attractive to paper recyclers by increasing paper content and by offering effective recycling solutions for the non-fibre component

Further drive the collection and recycling of carton packages worldwide by investing up to €40 million annually in the next few years

### What's next

- Follow the Ellen MacArthur Foundation's (EMF) principles of circular economy, ensuring that we drive circular economy systematically throughout businesses, set circularity targets and measure progress.
- Invest up to €100 million per year over the next five to ten years to further reduce the environmental impact of paper-based carton packages, including the research and development of packages that are made with a simplified material structure and increased renewable content.
- Take a leading role in industry collaborations to create a material agnostic, standard definition and assessment of what constitutes a recyclable package to enable homogeneity in design for recycling guidelines across geographies
- Contribute to achieving a 70% recycling rate carton package target in the European Union by 2030, fulfil national recyclability criteria in all countries we sell packaging, and fulfil EMF's Global Commitment
- Continue deployment of attributed recycled polymers to achieve a minimum of 10% recycled plastics in packages sold in Europe by 2025



## Climate 2022

### Highlights

39% ↓

GHG emissions reduction in our operations

[READ MORE](#)

84%

renewable energy consumption in our operations

[READ MORE](#)

131

KILO TONNES OF CO<sub>2</sub> SAVED

by buying more plant-based plastic compared to the level of CO<sub>2</sub> which would have been emitted if using fossil-based plastic<sup>6</sup>

[READ MORE](#)

### Ambition

Take action on mitigating climate change by decarbonising<sup>3</sup> our operations, products, and our value chain

### Actions & Targets

By 2030, achieve net-zero GHG emissions in our operations (scopes 1 and 2 and business travel) and -46% GHG reduction across our value chain in line with 1.5°C SBTi commitment compared to our 2019 baseline

By 2030, source 100% renewable electricity in our operations in line with RE100 commitment

By 2030, reduce the carbon footprint of our best practice processing lines by 50% compared to 2019

By 2050, work together with our suppliers, customers and other stakeholders to achieve net-zero GHG emissions across our value chain (scopes 1, 2 and 3)<sup>12</sup> compared to our 2019 baseline

### What's next

- Drive our base materials<sup>4</sup> suppliers to get certified against the new SBTi Corporate Net-Zero Standard<sup>5</sup>
- Continue the deployment of the eBeam technology and expanding its usage into future generations of filling machines to further reduce energy consumption as well as product and packaging waste.
- Run an environmental risk and impact analysis on our Services Supply Network sites starting with the Development Center in Lund, Sweden

<sup>1</sup> For the reported carton packages collected for recycling we use, where available, official publicly available data from renowned sources such as governmental agency, registered recovery organization, nationwide industry association, NGO etc. reported on a regular basis using a consistent approach.  
<sup>2</sup> In line with the circular economy definition of Ellen MacArthur Foundation. "The circular economy is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution". Source: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>  
<sup>3</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>4</sup> Base materials are the materials we use to produce the packaging we sell to food and beverage producers, including paperboard, polymers, aluminium foil and inks.  
<sup>5</sup> 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.  
<sup>6</sup> Based on climate accounting internal calculations (volume x emission factor) considering 72.7 kilo tonnes of plant-based plastic purchased in 2022. To calculate the avoided emissions number, we use a third-party emission factor for the plant-based polymers from public available lifecycle assessment by Braskem. Source: [https://www.braskem.com.br/portal/imgreen/arquivos/LCA%20PE%201m%20green%20bio-based\\_FINAL%20EN.pdf](https://www.braskem.com.br/portal/imgreen/arquivos/LCA%20PE%201m%20green%20bio-based_FINAL%20EN.pdf)



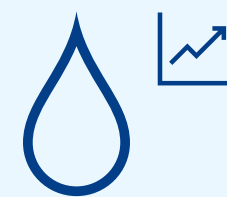
## Nature 2022

### Highlights

#### RENEWABLE POLYMERS

First Procedure for Responsible Sourcing of Renewable Polymers published

[READ MORE](#)



Water value-chain analysis completed to better understand our water footprint and water-related risks

[READ MORE](#)

# 87

#### HECTARES OF LAND,

the equivalent of 136 football fields, restored through the Araucaria Conservation Programme in the Brazilian Atlantic Forest

[READ MORE](#)

### Ambition

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<sup>1</sup>

### Actions & Targets

Manage the impact of our value chain on nature through the implementation of a nature strategy

Maintain our CDP Forests and Climate Change A-List leadership ranking

Reduce the water consumption of the best practice processing lines by 50% by 2030 compared to 2019 supported by setting 9 water reduction targets for Tetra Pak facilities

### What's next

- In 2023, disclose the results of our nature impact assessment and strategy, continue implementation of the strategy and start monitoring our progress against its targets.
- Revise our timber legality due diligence system to comply with the EU regulation on deforestation-free supply chains.
- In 2023, make our first CDP Water disclosure and set a target for reducing water use in our own operations by 2030
- Contribute to the sustainability of local water resources, as a private sector member of the Alliance for Water Stewardship
- Continue to progress with The Araucaria Conservation Programme in Brazil



## Social sustainability 2022

### Highlights



Initiated a process to assess and prioritise risks to people across our value chain in line with the UN Guiding Principles on Business and Human Rights

[READ MORE](#)



Increased women in senior management from 18% in 2021 to 22% in 2022, while share of women of all employees is 23%

[READ MORE](#)

#### HUMANITARIAN ASSISTANCE

Provided assistance and donations to support people and communities affected by humanitarian crises in Ukraine, Pakistan, Türkiye and Syria

[READ MORE](#)

### Ambition

To respect human rights across our operations and value chain, creating positive social impact<sup>2</sup>

### Actions & Targets

Create action plans to address salient human rights risks across our value chain, along with targets and KPIs

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

Continue to invest in training on inclusive leadership for managers and mentoring programmes driving gender equity and inclusiveness by 2030 compared to 2019

Sustain investment in Future Talent Programmes and enable world-class training and development for all our employees

### What's next

- Develop action plans to prevent and mitigate priority human rights issues across our supply chain, own operations and collection and recycling
- In 2023, join World Business Council for Sustainable Development's Tackling Inequality project to further inform and advance our work on social sustainability

### Our Workforce

- Expand support of mental wellbeing through the Mental Wellbeing Programme
- Expand focus on DEI work, beyond gender, by identifying and removing barriers to equal opportunities
- Continue efforts to increase the number of women in senior and factory positions

### Supply chain workers

- Update our Supplier Code of Conduct to strengthen requirements in line with our overall sustainability strategy.
- Enhance our risk assessment processes, integrating human rights considerations into our annual supplier surveys and our due diligence on specific supplier categories
- Engage with informal waste collectors to inform market specific action plans in pilot countries

<sup>1</sup> "The private sector can play a critical role in building system resilience, as businesses can drive resilience at the local level (on-site resilience), through their supply chains (supply chain resilience) and beyond their operation (system resilience)". Water Resilience Assessment Framework Corporate Guidance [https://www.globalcompact.de/fileadmin/user\\_upload/Water\\_Resilience\\_Assessment\\_Framework.pdf](https://www.globalcompact.de/fileadmin/user_upload/Water_Resilience_Assessment_Framework.pdf)

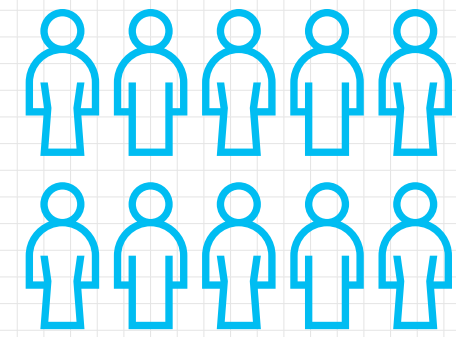
<sup>2</sup> By positive impact we mean driving better outcomes for our workforce, workers and communities in our supply chain, workers in collection and recycling and people in our value chain affected by climate change and the transition to net-zero in the areas of labour, discrimination, hazardous working conditions and sustainable income, among others



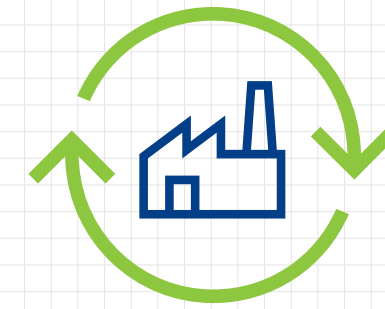
# About us

## Our company in numbers

Figures as of January 1st 2023



**23,733**  
employees



Collaborating with **~ 200**  
recycling facilities



**52**  
Production plants

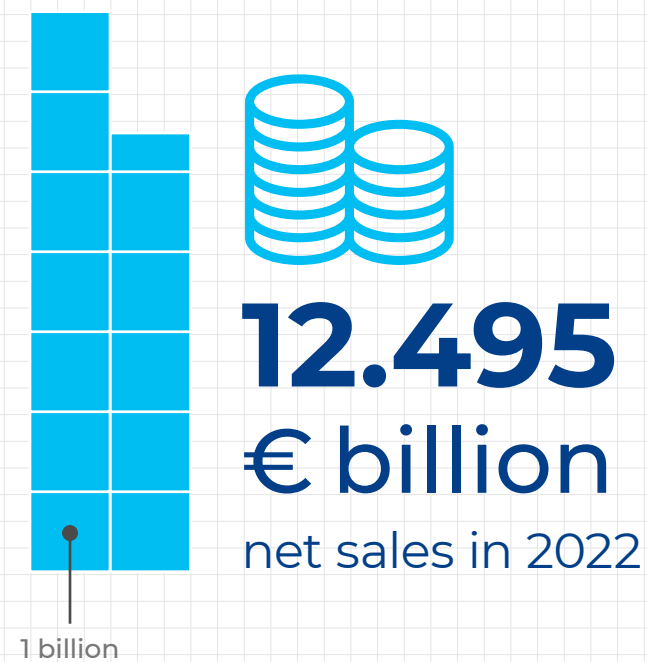
**27**  
Market companies

**87**  
Sales offices

**6**  
Customer innovation centres

**8**  
Technical training centres

**6**  
Research & Development Centres



**>160**  
Countries in which Tetra Pak had sales in 2022

**193**  
billion  
Tetra Pak® packages sold in 2022



**1.2 million tonnes** of carton packages collected and sent for recycling

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 resource efficient products and solutions that each day meet the needs of hundreds of millions of people in more than 160 countries. We are part of the Tetra Laval Group, which also includes Sidel and De Laval, all focused on technologies for the efficient production, packaging, and distribution of food.

[READ MORE](#)

### DELIVERED IN 2022



**206**  
Filling machines



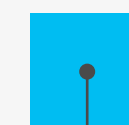
**2,665**  
Processing units



**671**  
Downstream equipment

### IN OPERATION

**103,322**  
Processing units in operation



**22,757**  
Downstream equipment



**8,959**  
Packaging machines

# Our approach to sustainability

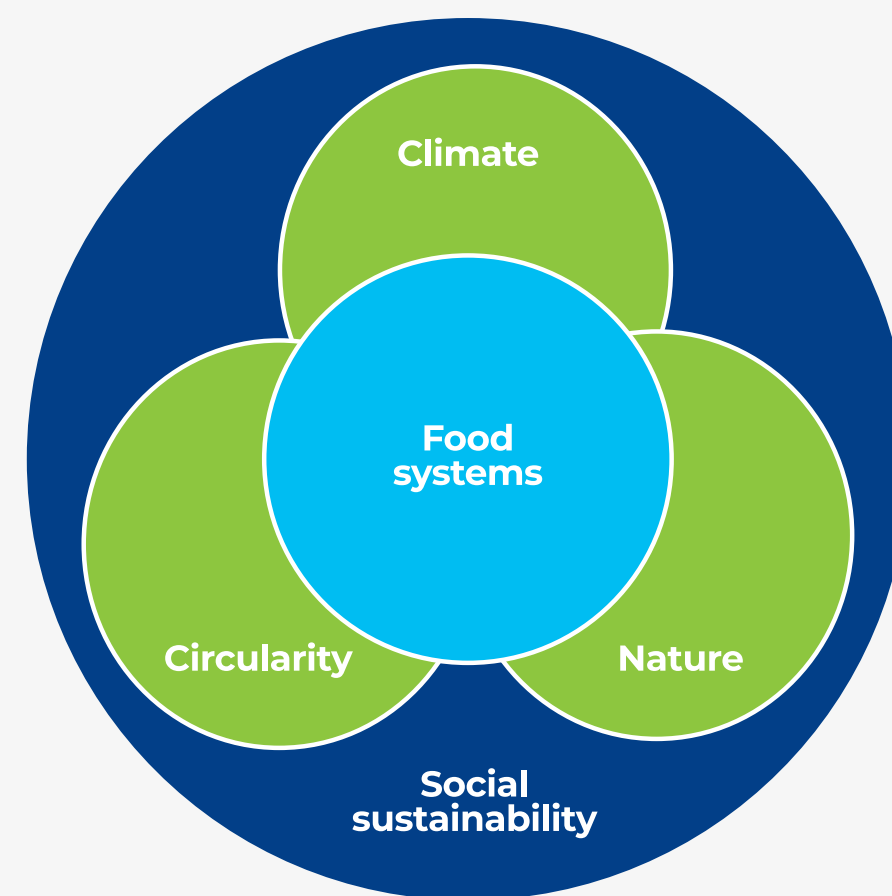
Our approach to sustainability is embodied by our purpose “we commit to making food safe and available, everywhere and we promise to protect what’s good - protecting food, people and the planet”.

Our purpose guides our business decisions, unifies our people, and continues to be the driving force behind our innovations. It is central to our Strategy 2030 and its four pillars of quality, sustainability, integration and optimisation, and innovation.

Our approach to sustainability takes into consideration the expectations of our stakeholders, and the environmental, social and governance (ESG) topics that are most material to our industry. At the heart of our sustainability approach, we consider the interconnections

and interdependencies of five focus areas, which are aligned with our purpose and where Tetra Pak can contribute the most: food systems, nature, climate, circularity, and social sustainability.

**Food.**  
**People.**  
**Planet.**



Food systems lie at the heart of our sustainability agenda. With a population of 8 billion that is steadily growing, the world needs more food and therefore secure<sup>1</sup>, resilient<sup>2</sup> and sustainable<sup>3</sup> food systems<sup>4</sup>. Currently, our food systems are facing a “triple challenge”<sup>5</sup> to ensure food security and nutrition, support the livelihoods of millions of farmers and others, and expand food production without exerting more pressure on natural resources. Global food systems today account for over 30% of

global greenhouse gas (GHG) emissions<sup>6</sup> contributing to climate change. With the world working towards limiting global warming to 1.5°C, there is a need to decarbonise food systems – and find ways to produce, process, package and distribute more food sustainably, in order to address the climate crisis. This should be done without increasing the amount of waste generated – today, 1/3 of the food

produced is lost or wasted globally<sup>7</sup> – and the global economy has consumed 70% more new materials than the Earth can safely replenish since 2015<sup>8</sup>. We must move away from the linear “take-make-waste” consumption model toward a circular economy. However, reducing waste is not enough. There is a need to help protect and restore ecosystems – not only to ensure biodiversity but also to mitigate climate change.

<sup>1</sup> Secure food systems: As defined by the UN, food security means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food.

<sup>2</sup> Resilient food systems: As defined by the OECD, resilience in the context of food and agriculture as the ability to prepare and plan for, absorb, recover from, and more successfully adapt and transform in response to adverse events. Source: [https://www.oecd-ilibrary.org/agriculture-and-food/strengthening-agricultural-resilience-in-the-face-of-multiple-risks\\_2250453e-en](https://www.oecd-ilibrary.org/agriculture-and-food/strengthening-agricultural-resilience-in-the-face-of-multiple-risks_2250453e-en)

<sup>3</sup> Sustainable food systems mean growing, producing, processing, packaging, distributing and consuming food without negatively impacting the planet. Source: <https://www.oecd-ilibrary.org/sites/c6fd4d2f-en/index.html?itemId=/content/component/c6fd4d2f-en>

<sup>4</sup> All the elements and activities related to producing and consuming food, as well as their effects, including economic, health, and environmental outcomes.

<sup>5</sup> Source: <https://www.oecd.org/food-systems/understanding/triple-challenge/>

<sup>6</sup> Crippa, M. et al. Food systems are responsible for a third of global anthropogenic GHG emissions. (2021). Source: <https://www.nature.com/articles/s43016-021-00225-9>

<sup>7</sup> The World Food Programme: 5 facts about food waste and hunger. (2020). Source: <https://www.wfp.org/stories/5-facts-about-food-waste-and-hunger>

<sup>8</sup> Circularity Gap Report: FIVE YEARS of the Circularity Gap Report (2022). Source: <https://www.circularity-gap.world/2022>

Humanity has caused the loss of 83% of all wild mammals and 50% of all plants<sup>1</sup>, largely driven by how global food systems<sup>2</sup> are operating. The conversion of natural ecosystems for crop production or pasture account for 90% of tropical deforestation<sup>3</sup> and 70% of water use globally<sup>4</sup>.

Underpinning all of this is social sustainability as people's income, livelihoods, and wellbeing are impacted by global value chains. While businesses can worsen people's vulnerability, respecting human rights can increase their resilience. However, the increasing incidence of forced labour, extreme poverty, and unsafe working conditions threaten the rights of workers and communities<sup>5</sup>.

We believe that addressing the interconnected nature of these areas requires strong, proactive system-wide collaboration among industry stakeholders. We are ready to play a leading role in this transformation within the food and beverage industry, taking a holistic approach to sustainability. Tetra Pak's dedicated sustainability leadership team, advisory panel, and professionals work to ensure we can deliver on the ambitious aims of our strategy. Clear routes of reporting and accountability



*Working throughout the whole value chain is important – from food production to the end-consumer. For instance, by reducing carbon emissions at every stage of the food supply chain or bringing innovations to the market to reduce food loss and waste. Tetra Pak is a good example with its collaboration with multiple partners like the United Nations Food and Agriculture Organisation's Committee on World Food Security.*

**Johan Rockström,**  
Joint director of the Potsdam Institute for Climate Impact Research (PIK), Professor in Earth System Science at the University of Potsdam and Professor in Water Systems and Global Sustainability, at Stockholm University

provide the necessary guidance and oversight from the team delivering outcomes to those at the executive level.

→ See the *Responsible business practices* chapter

# Our sustainability priorities

Tetra Pak remains committed to monitoring, managing, and reporting on our five focus areas. As part of this commitment to openness and transparency, we regularly conduct a formal, independent materiality assessment to ensure we are addressing those topics of greatest relevance, for our customers, business, society, and the environment. In 2021 we engaged AccountAbility, an independent Environmental, Social, and Governance (ESG) Advisory firm, to support us in updating our materiality assessment to identify the most important sustainability topics for us to focus on. See these topics to the right.

[READ MORE](#)

Our focus areas	Our material topics
<b>Food systems</b>	<ul style="list-style-type: none"> <li>Food safety &amp; quality</li> <li>Food access, availability &amp; resilience</li> <li>Food loss &amp; waste</li> </ul>
<b>Circularity</b>	<ul style="list-style-type: none"> <li>Circularity &amp; recycling</li> </ul>
<b>Climate</b>	<ul style="list-style-type: none"> <li>Climate &amp; decarbonisation</li> </ul>
<b>Nature</b>	<ul style="list-style-type: none"> <li>Water management</li> <li>Responsible sourcing of raw materials</li> <li>Biodiversity &amp; nature</li> </ul>
<b>Social sustainability</b>	<ul style="list-style-type: none"> <li>Talent attraction, development &amp; engagement</li> <li>Human rights</li> <li>Diversity &amp; inclusion</li> <li>Employee health, safety &amp; wellbeing</li> <li>Business ethics</li> <li>Responsible marketing &amp; communication</li> </ul>

<sup>1</sup> Source: [https://www3.weforum.org/docs/WEF\\_New\\_Nature\\_Economy\\_Report\\_2020.pdf](https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf)  
<sup>2</sup> Benton, T.C., et al. (2021). Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature. Chatham House. Source: [https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al\\_0.pdf](https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al_0.pdf)  
<sup>3</sup> Pendrill, Florence, et al. "Disentangling the numbers behind agriculture-driven tropical deforestation." Science 377.6611 (2022): eabm9267.  
<sup>4</sup> The State of the World's Land and Water Resources for Food and Agriculture – Systems at Breaking Point. Synthesis Report 2021. Rome (2021), 10.4060/cb7654en  
<sup>5</sup> International Labour Organisation: 50 million people worldwide in modern slavery. (2022). Source: [https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS\\_855019/lang-en/index.htm](https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_855019/lang-en/index.htm)

# Our focus areas

## Contents

Food systems	13
Circularity	22
Climate	33
Nature	44
Social sustainability	55
Responsible business practices	67

# Food systems

## Contributing to secure<sup>1</sup>, resilient<sup>2</sup>, and sustainable<sup>3</sup> food systems<sup>4</sup>

The Organization for Economic Cooperation and Development (OECD) has defined a “triple challenge” facing our food systems.

- Ensuring food security and nutrition for a growing population in a world where malnutrition persists; where more than 820 million people go to bed hungry<sup>5</sup> whilst over 670 million adults are obese<sup>6</sup>.

- Supporting the livelihoods of millions of farmers and others in an increasingly modern food chain, where productivity has led to a decline in agricultural commodity prices thus creating economic pressures for small farmers.

- Expanding food production without exerting more pressure on natural

resources; where land and use of inputs are associated with environmental degradation and 1/3 of food produced is lost or wasted globally<sup>7</sup>.

In addition to overcoming the triple challenge, it has become critical that we monitor and manage the growing environmental impacts of our current food systems, which account for over 30% of global greenhouse gas (GHG) emissions<sup>8</sup> and are the leading cause of ecosystem degradation and biodiversity loss<sup>9</sup>. We believe, as was stressed by world leaders at COP27<sup>10</sup>, that we need to work together to build more secure, sustainable and resilient food systems and overcome these challenges.



### Why it matters

Food systems<sup>11</sup> are challenged with ensuring food security and nutrition, supporting farmers' livelihoods, and reducing their reliance on natural resources. As well, they contribute over 30%<sup>12</sup> of global GHG emissions, exacerbating the climate and nature crisis.

### SDGs



### Ambition

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.

### Targets

- Advocate for secure, resilient, and sustainable food system solutions and form or join alliances supporting systems-level change
- 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
- Reduce food waste of our best practice processing lines by 50% by 2030 compared to 2019

1 Secure food systems: As defined by the UN, food security means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food. Source: <https://www.oecd.org/agriculture/topics/food-security/>

2 Resilient food systems: As defined by the OECD, resilience in the context of food and agriculture as the ability to prepare and plan for, absorb, recover from, and more successfully adapt and transform in response to adverse events. Source: [https://www.oecd-ilibrary.org/agriculture-and-food/strengthening-agricultural-resilience-in-the-face-of-multiple-risks\\_2250453e-en](https://www.oecd-ilibrary.org/agriculture-and-food/strengthening-agricultural-resilience-in-the-face-of-multiple-risks_2250453e-en)

3 Sustainable food systems mean growing, producing, processing, packaging, distributing and consuming food without negatively impacting the planet. Source: <https://www.oecd-ilibrary.org/sites/c6fd4d2f-en/index.html?itemId=content/component/c6fd4d2f-en>

4 All the elements and activities related to producing and consuming food, as well as their effects, including economic, health, and environmental outcomes.

5 Action Against Hunger: World Hunger Facts. (2022). Source: [Actionagainsthunger.org](https://www.actionagainsthunger.org)

6 Global Nutrition Report (2022). Source: [Inequalities in the global burden of malnutrition - Global Nutrition Report](https://www.globalnutritionreport.org)

7 The World Food Programme: 5 facts about food waste and hunger. (2020). Source: <https://www.wfp.org/stories/5-facts-about-food-waste-and-hunger>

8 Crippa, M. et al. Food systems are responsible for a third of global anthropogenic GHG emissions. (2021). Source: <https://www.nature.com/articles/s43016-021-00225-9>

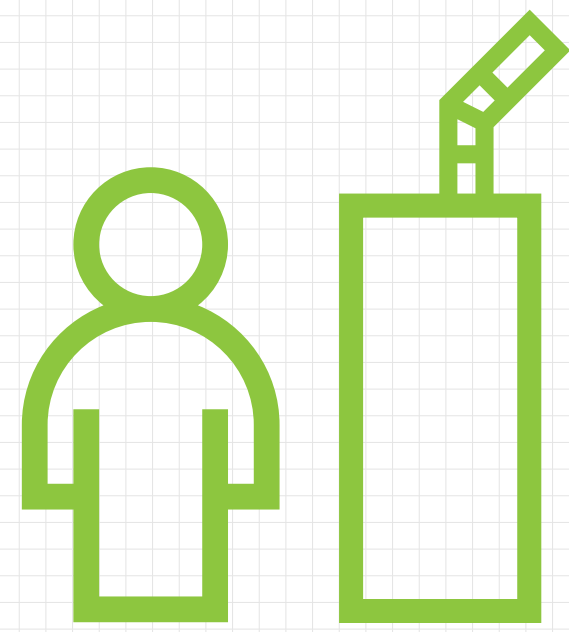
9 Source: <https://www.unep.org/news-and-stories/press-release/our-global-food-system-primary-driver-biodiversity-loss>

10 Food and Agriculture Organization: Agriculture and food systems finally on the table at COP27. (2022). Source: <https://www.fao.org/climate-change/news/detail/en/c/1620205/>

11 The term 'food systems' refers to all the elements and activities related to producing and consuming food, and their effects, including economic, health, and environmental outcomes (OECD, <https://www.oecd.org/food-systems>, 2023)

12 Crippa, M. et al. Food systems are responsible for a third of global anthropogenic GHG emissions. (2021). Source: <https://www.nature.com/articles/s43016-021-00225-9>

# 2022 highlights

**66**  **MILLION CHILDREN**

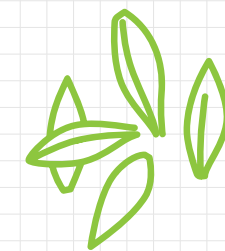
in **44 countries** received milk or other nutritious beverages in Tetra Pak packages through **school feeding programmes**



First collaboration with **Fresh Start**, a leading food technology incubator that works with a portfolio of start-ups to provide technical solutions to challenges facing global food systems.



Developed a breakthrough 'whole soya' processing method for soya drinks reducing waste and boosting nutrient content.



Progressed on the technology to transform Brewer's Spent Grain (BSG)<sup>1</sup> into plant-based beverage.

**43,939 farmers**

**96.2%**

of which are smallholders, delivered milk to food and beverage manufacturers in 22 Dairy Hub projects.

1,000 farmers

<sup>1</sup> Brewer's Spent Grain is the industrial moniker used to describe the malt after a brewery has already used it to make beer. Source: <https://www.regrained.com/blogs/upcyclist/what-is-spent-grain>

## Tetra Pak's role

The complex nature of our value chain includes a wide range of actors involved in the production, processing, distribution, and sale of food and beverages, all of whom are affected by these challenges – thus we have a role in transforming food systems through developing new food processing technologies and packaging solutions that meet the evolving needs of the food industry. At Tetra Pak, we are committed to the action tracks of the UN Food Systems<sup>1</sup>, and we are contributing to its objectives by working with our customers, NGOs, governments, and other stakeholders to (1) increase access to safe, nutritious food; (2) reduce food loss and waste; and (3) build sustainable food value chains.

By providing aseptic processing and packaging technology that protects the quality and safety of perishable foods and extends their shelf life, we can help reduce food loss and waste and improve access to



safe, nutritious food, even in remote areas or countries with insufficient cold chains. We are committed to building sustainable food value chains that improve the livelihoods of farmers, reduce the environmental impact of our value chain, and, ultimately, help provide healthy and nutritious diets to the global community. Overall, we can help create more secure, sustainable, and resilient food systems that can help withstand shocks and disruptions, benefitting both people and the environment.



*Feeding the world's growing population, while protecting the planet is possible. If all stakeholders come together and deliver meaningful change, we can provide nutritious food to eight billion people every day. We need food packaging to deliver perishable foods safely to people around the world. At the same time, such packaging needs to consider not only post-use recycling but also the climate impact of the materials used, and the operation of the entire value chain. If we do not balance all these areas simultaneously, we risk solving one problem while creating another.*

**Ola Elmqvist,**

Executive Vice President Packaging Solutions, Tetra Pak

<sup>1</sup> The UN Food Systems Summit launched five Action Tracks to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems. Source: <https://www.un.org/en/food-systems-summit>

Food garden at  
Tetra Pak facility

# Food experience programme

We are changing how we serve food and what food and beverages we serve at our workplaces, working with our food service providers on the Tetra Pak Food experience programme. As part of this effort, we have joined the **Cool Food** movement, a growing effort of workplaces, hotels, hospitals, and restaurants aiming to slash food-related greenhouse gas emissions by 25% by 2030. Our objectives and progress in 2022 were the following:



- **Provide healthy food and drinks across all our serviced sites globally.**

We have encouraged our employees to eat more plant-based food according to the science-based approach from [WRI \(World Resources Institute\)](#). This has included putting plant-based items at the front of the restaurant counters as well as on the menu itself in Lund in Sweden and Monte Mor in Brazil.

- **Grow more food onsite.**

In 2022 we have increased our initiatives to grow and harvest vegetables on our factories' ground, both by weight and by the number of locations. Pakistan's kitchen garden provided over a tonne of fresh vegetables since the launch of the initiative, last autumn.



- **Reduce our greenhouse gas emissions from our food services by 25% across all serviced sites by 2030<sup>1</sup>.**

We have started tracking GHG emissions from our food services operations, and by 2024 we look forward to creating an effective benchmark to quantify improvements.

- **Provide a more engaging, seamless and enjoyable food experience<sup>3</sup>.**

To ensure success in our change journey, we frequently measure employee satisfaction in this area to assess our performance and progress.



Food garden at Tetra Pak facility

- **Reduce our food waste by 50% across our restaurants and have zero food waste sent to landfill by 2030<sup>2</sup>.**

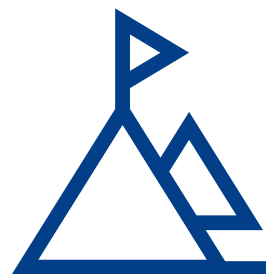
We are working with our food service partners on identifying food waste sources, developing reduction methods – and actively monitoring and reducing food waste, leveraging on a variety of technologies and tools.

<sup>1</sup> We have started tracking GHG emissions from our food services operations, and by 2024 we look forward to creating an effective benchmark to quantify improvements.

<sup>2</sup> This includes all food wastes from our restaurants from pre-production waste (e.g., expired food before use, vegetables peelings, etc.) to plate waste (i.e., food not eaten and left on the plate by users). Baseline 2019.

<sup>3</sup> From where and when the users can see the menu (virtually and physically) to their dining experience to their departure (to the coffee or take home some food). Our service team, both customer facing and behind in the kitchen also need training to provide better service and food, especially we are introducing more sustainable food offers.





# Our progress in 2022

## Increase access to safe, nutritious food

### Food innovation

**Food processing and packaging can be an enabler for healthy diets through technologies that enhance nutrient content and advance plant-based alternatives. At Tetra Pak, we are collaborating with innovative start-ups in food production to provide them with opportunities to trial large-scale production, validate their results, and understand the needs and challenges in the markets they want to operate in.**

#### Whole soya processing method increasing nutrients

We developed a breakthrough 'whole soya' processing method for soya drinks resulting in a product which is composed of 1.2% fibre compared to 0.26% for traditional, extracted soyabean drinks<sup>1</sup>. The method uses the entire soyabean during the production process and leads to a higher yield and therefore lower raw material cost per litre of product. It also enables low to no okara<sup>2</sup> taste which has been a barrier for some consumers, due to its taste. This innovation paves the way for a multitude of new products and presents commercial opportunities for yoghurt, spreads, ice cream, and meal replacements.

[READ MORE](#)



#### New plant-based ambient vegan yoghurt alternatives offer convenience

We have supported the development of plant-based, ambient yoghurt alternatives ('vegurts') by CHr. Hansen and CP Kelco, two global ingredient suppliers. These yoghurt alternatives offer convenience and can help enable healthy diets. Our Product Development Centre (PDC) in Lund validated the concept in our pilot plant in Sweden, providing full-service factory-scale line-ups and industry experience.

[READ MORE](#)

<sup>1</sup> Nutritional comparison of whole bean soya extracted soya, and white dairy milk. Fibre % - 1.2% for whole bean soya, 0.26% for extracted soya, 0% for white dairy milk. Source: [https://www.tetrapak.com/insights/cases-articles/whole-soya-beverages-new-production-method#cf-step-thankyou-banner\\_copy\\_copy](https://www.tetrapak.com/insights/cases-articles/whole-soya-beverages-new-production-method#cf-step-thankyou-banner_copy_copy)

<sup>2</sup> Okara is a pulp consisting of insoluble parts of the soybean that remain after pureed soybeans are filtered in the production of soy milk and tofu.



School Milk Programme  
in Kenya



## School feeding programmes

School Feeding Programmes improve children's health, increase school attendance, and stimulate agricultural development. Since 1962, we have supported our customers and collaborated with governments, NGOs, the UN and international development aid agencies to provide technical assistance in programme organisation, implementation, evaluation, environmental education, and advise on food safety and quality controls in schools by sharing global best practices.

In Kenya, over 650,000 children under five years old living in the Arid and Semi-Arid Lands (ASAL) region are acutely malnourished<sup>1</sup>. The ASAL region also has a high number of children not attending

school. In 2022, we collaborated with Ingredion, DSM, Jetlak Foods Limited, and the National Council for Nomadic Education in Kenya to provide the newly developed Super Porridge, a liquid ready-to-drink cereal-based product, to 5,000 children across three counties in the pilot programme. The product is highly fortified with 15 micronutrients including vitamins A, C, and E, calcium, zinc, and iron. This initiative aims to reduce malnutrition rates by 50% and the poverty index by 25% by 2026 and improve school attendance rates.

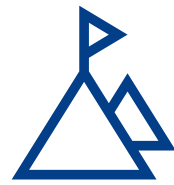
[READ MORE](#)



*We greatly value being part of this School Feeding Programme and working together in collaboration with all the stakeholders is highly important for Ingredion. We are delighted to see that the children appreciate both the texture and the taste of Super Porridge which has been developed at our idea lab facility in Nairobi, Kenya. After all, if it does not taste good the children will not drink it - no matter how nutritious it is.*

**Kennedy Ouma,**  
Business Director, Africa & Middle East, Ingredion

<sup>1</sup> Source: <https://www.ipcinfo.org/ipcinfo-website/alerts-archive/issue-47/en/>



## Reduce food loss and waste

### Avoiding food loss and waste

Food processing technologies and packaging solutions can help curb losses by extending the shelf life of food and reducing the risk of spoilage.

By collaborating with [Fresh Start](#), a leading food technology incubator that works with a portfolio of start-ups, we are looking to provide technical solutions to some of the challenges facing global food systems such as food safety, availability and waste.

See the *Innovating to transform food systems* spotlight story

### Reducing and transforming food waste

We are supporting customers with our technology to enable the recovery and reusing of edible biomass, and currently wasted low-value side streams, to create new sources of raw materials for food production and processing.

#### Valorising low-value side streams into a plant-based beverage

We have taken steps in the last year to make the food and beverage industry more circular by developing a technology to transform Brewer's Spent Grain (BSG)<sup>1</sup> into a plant-based beverage. This is part of our overall approach to innovate in similar methods in other food and beverage categories to valorise residues and waste from food production.

See the *Innovating to transform food systems* spotlight story



We are also working on using connected technology and other innovations to further minimise food loss in our production and customer filling lines.

[READ MORE](#)

<sup>1</sup> Brewer's Spent Grain is the industrial moniker used to describe the malt after a brewery has already used it to make beer. Source: <https://www.regrained.com/blogs/upcyclist/what-is-spent-grain>



# Build sustainable food value chains<sup>1</sup>

## Dairy Hubs

Through our Dairy Hub model, we link smallholder farmers with dairy processors to help build sustainable local dairy value chains<sup>2</sup>, securing a long-term supply of locally produced quality milk in emerging economies without raising the costs of collection. We provide technical training to Extension Service Officers<sup>3</sup> to improve farm management and milk production, as well as farmers to help them improve profitability and grow their businesses.

In 2022, the Dairy Hub projects involved 43,939 farmers (96.2% of which are smallholders) that have delivered milk to food and beverage manufacturers. Since 2011, when we introduced the first Dairy Hub project, we have reached 67,808 farmers (97% of which are smallholders) and we currently have 22 Dairy Hub projects, four of which are new this year.



Dairy Hub  
Panama



Tetra Pak® Connected Package

## Supply chain transparency & traceability

We are working towards full product traceability through the entire food processing and packaging value chain to enhance transparency, accountability, quality control, and to meet our high food safety standards which help make food systems more resilient and help contribute to significant reductions in food waste.

In 2022, we delivered over 1.2 billion Tetra Pak® Connected Package, which transforms our cartons into full-scale data carriers and digital tools to enable traceability and unique consumer interactions. Each packaged product has a unique digital identity.

[READ MORE](#)

In the Dominican Republic, we are supporting our customer Coopesur, a co-operative with around 800 farmers/ members, and Agampta, an association of dairy farmers, to secure a stable supply of local high-quality milk. Their yield improvements in 2022 are as follows:

For Coopesur, the reference farms with an 15% average increase in milk production/ farm increased compared to baseline. Likewise, productivity per cow (L/cow/day)

and per hectare (L/ha/day) increased by 8% and 14.6%, respectively.

For Agampta, milk production increased on average by 21.4% in the reference farms compared to baseline. Likewise, productivity per cow (L/cow/day) and per hectare (L/ha/day) increased by 13% and 21%, respectively.

[READ MORE](#)

<sup>1</sup> We believe this starts with a mindset shift that moves from considering only what is happening in our factories and facilities to what is happening across the food value chain. And we believe it requires close collaboration and innovative thinking from all stakeholders – to truly make food value chains more sustainable. The traditional operating model of a linear supply chain has changed, and a new partnership ecosystem model is emerging, where the entire industry works in close collaboration. This brings together not only producers and suppliers, but also research institutions, universities, and start-ups to find solutions.

<sup>2</sup> A sustainable food value chain is a food value chain that: is profitable throughout all of its stages (economic sustainability); has broad-based benefits for society (social sustainability); and has a positive or neutral impact on the natural environment (environmental sustainability). Source: <https://www.fao.org/sustainable-food-value-chains/what-is-it/en/#:~:text=In%20the%20economic%20dimension%2C%20a,fiscally%20viable%20for%20public%20services>

<sup>3</sup> Extension Officers are often employed by a processor, NGO or a local authority with the purpose to implement good practices and showcase productivity results.

# >> What's next?

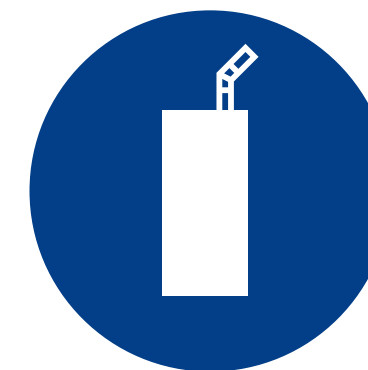
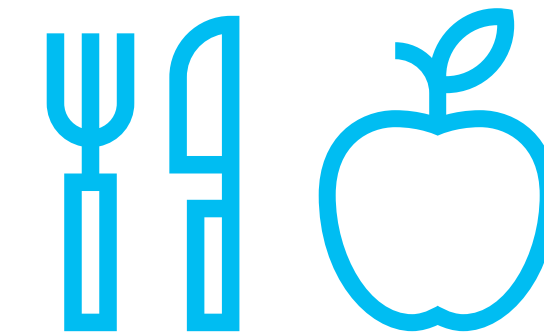
We will continue to work towards our ambition to contribute to secure, resilient, and sustainable food systems that provide access to safe, affordable, and nutritious food, and minimise food loss and food waste across our value chain. For this, we plan to act on the following steps:



Dairy Hub Panama

Enhance the impact of the Dairy Hub model by continuing to build sustainable programmes thereby further cascading knowledge and technical training to dairy farmers.

Continue developing innovative food processing technologies to support food and beverage manufacturers in creating nutritious foods, including sustainable ingredients, plant-based, and alternative protein substitutes.



Expand participation in existing School Feeding Programmes and support the implementation of new programmes in markets where vulnerable children need access to nutritious foods.

In 2023, we have established **four food system transformation pathways** and are now working to establish targets. Through this strategic framing, we aim at demonstrating positive contributions in advancing sustainability in the global food systems and across value chains through our products, technologies and solutions.

- 1 **Support transition towards responsible dairy**
- 2 **Deliver healthy food for a healthy planet**
- 3 **Minimise food loss and waste in our supply chains**
- 4 **Scaling access to safe nutrition via sustainable food packaging**

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

■ Early in 2023, along with more than 100 players in the food and beverage industry, Tetra Pak signed up to the EU Code of Conduct on Responsible Food Business and Marketing Practices (CoC): a common aspirational path towards sustainable food systems.

[READ MORE](#)

■ We also joined the World Business Council for Sustainable Development (WBCSD) Food and Agriculture Pathway to engage on and advance the work in food systems transformation.

■ And signed up to the Global Dairy Platform Pathways to Dairy Net Zero commitment through the establishment of a Dairy Processing Research Task Force.

# Circularity

## Driving circular solutions<sup>1</sup>

Since 2015, the global population has grown by roughly 10%<sup>2</sup> whilst the global economy has consumed 70% more new materials than the Earth can safely replenish<sup>3</sup>. Making matters worse, more than 90% of all materials extracted are wasted, with only 8.6% being repurposed in our economy<sup>4</sup>. This highlights a concerning trend of over-consumption, as we are not only failing to preserve the limited – and often non-renewable – resources we rely on, but our traditional “take-make-waste” model<sup>5</sup> is also failing to get the most out of them, with resources being extracted, used, and then disposed of. Following this model, exacerbates the detrimental effects of waste and resource mismanagement on

human and ecosystem health. The current model must shift to a circular economy, based on three principles set out by the Ellen MacArthur Foundation (EMF): eliminate waste and pollution, circulate products and materials (at their highest value) and regenerate nature<sup>6</sup>. In 2022, the European Union took an important step by publishing a revised proposal for the [Packaging and Packaging Waste Regulation \(PPWR\)](#), which provides an opportunity for the entire packaging industry to promote the development of innovative solutions to reduce the amount of packaging waste and ensure that all packaging is either recyclable or reusable in Europe by 2030.

<sup>1</sup> In line with the circular economy definition of Ellen MacArthur Foundation. “The circular economy is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution”. Source: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

<sup>2</sup> From 7.3 billion to 8 billion. Source: Population | United Nations

<sup>3</sup> Circularity Gap Report: FIVE YEARS of the Circularity Gap Report (2022). Source: <https://www.circularity-gap.world/2022>

<sup>4</sup> Circularity Gap Report: FIVE YEARS of the Circularity Gap Report (2022). Source: <https://www.circularity-gap.world/2022>

<sup>5</sup> Reference to linear economy as defined by EMF: “An economy in which finite resources are extracted to make products that are used - generally not to their full potential - and then thrown away (‘take-make-waste’)”. Source: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/glossary>

<sup>6</sup> Ellen MacArthur Foundation. <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

<sup>7</sup> The non-fibre component of carton packages is known as polyAl, which designates the layers of polyolefins and aluminium being used as barrier against oxygen and humidity to protect the food content in aseptic carton packages.

<sup>8</sup> Both operational and capital expenditures



### Why it matters

The global population has grown by 10% since 2015, while the global economy has consumed 70% more new materials than the Earth can replenish. Over 90% of extracted materials are wasted, indicating overconsumption and a “take-make-waste” model that harms human and ecosystem health.

### SDGs



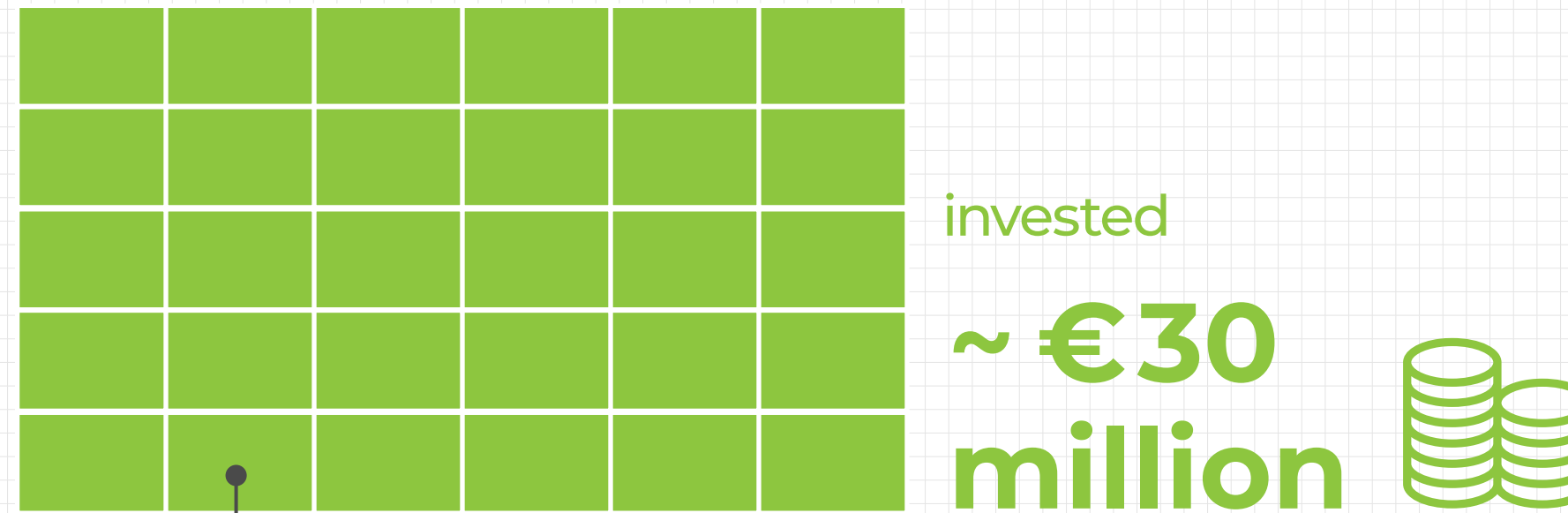
### Ambition

Drive circular solutions by designing recyclable food and beverage packaging, using recycled and renewable materials, and expanding collection and recycling to keep materials in use and out of landfills.

### Targets

- ⊕ Design our equipment for food processing and packaging to be maintained, leased, reused, repaired, and upgraded to extend their lifespan
- ⊕ Design packaging that is attractive to paper recyclers by increasing paper content and by offering effective recycling solutions for the nonfibre component<sup>7</sup>
- ⊕ Further drive the collection and recycling of carton packages worldwide by investing up to €40 million<sup>8</sup> annually in the next years

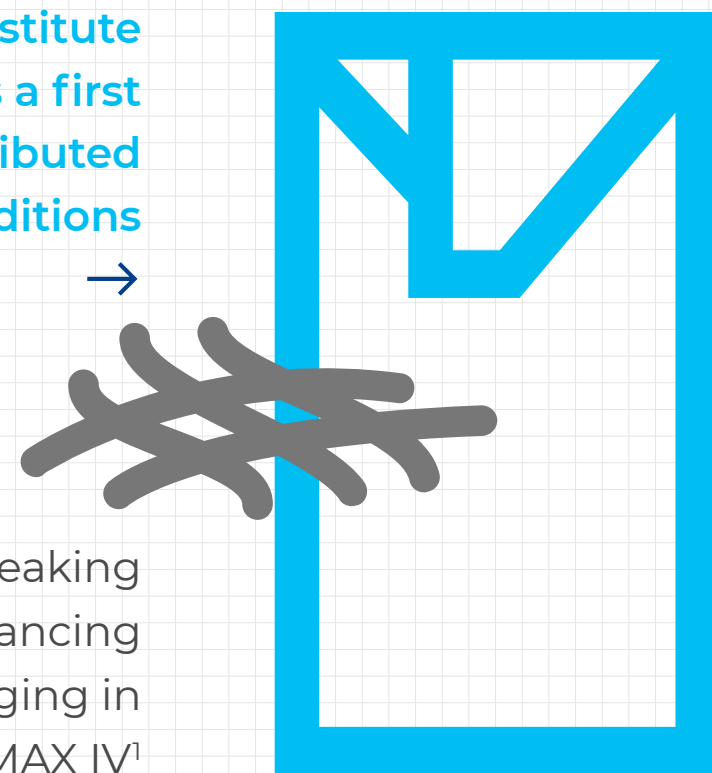
# 2022 highlights



1 € million

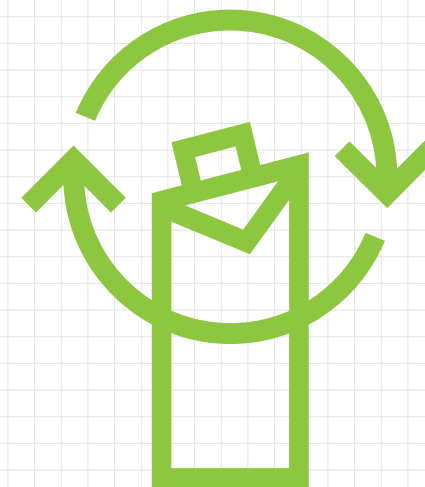
in operational and capital expenditures in collection and recycling projects around the world with a dedicated team of 70 employees →

Tested a fibre-based barrier to substitute the aluminium foil layer that is a first within food carton packages distributed under ambient conditions →



Started ground-breaking research towards advancing fibre-based food packaging in collaboration with MAX IV<sup>1</sup> →

1.2 million tonnes<sup>2</sup>



of carton packages have been collected and sent for recycling in 2022<sup>3</sup> →

investing  
**€100 million annually**

€100 million invested in 2022 in the research and development of packages made with a simplified material structure →

<sup>1</sup> The research aims to uncover fresh insights into the nanostructure of fibre materials, with the first application to optimise the composition of materials used for paper straws. Source: <https://www.tetrapak.com/about-tetra-pak/news-and-events/newsarchive/Tetra-Pak-commences-first-of-its-kind-research-into-fibre-based-food-packaging>  
<sup>2</sup> For the reported carton packages collected for recycling we use, where available, official publicly available data from renowned sources such as governmental agency, registered recovery organization, nationwide industry association, NGO etc. reported on a regular basis using a consistent approach.  
<sup>3</sup> Paper-based carton packages are recyclable where adequate collection, sorting and recycling infrastructures are in place



## Tetra Pak's role

We believe that a circular economy should consider not just recycling and reuse, but also the nature and climate impacts of raw materials and manufacturing.

We have set an ambition to improve circularity of our equipment for food processing and packaging by designing them to be maintained, leased, reused, repaired, and upgraded to extend their lifespan.

For packaging, our ambition is to create the 'world's most sustainable food package'<sup>1</sup>, which means creating cartons that are fully made of renewable or recycled materials, that are responsibly sourced, thereby helping to protect and restore our planet's climate, resources, and biodiversity; contributing towards carbon-neutral production and distribution; are convenient and safe, therefore helping to enable a resilient food system; and are fully recyclable. We focus on enabling the use of renewable materials, maximising the value

of recycled material, minimising waste, and making sure the package of the future is designed for recycling. In 2022, through both operational and capital expenditures<sup>2</sup>, we invested nearly €30 million in collection and recycling projects around the world in support of our targets for paper-based carton packages' collection and recycling. Going forward, we are increasing our contribution to the collection and recycling of food and beverage paper-based carton packages worldwide, investing up to approximately €40 million annually<sup>3</sup>.



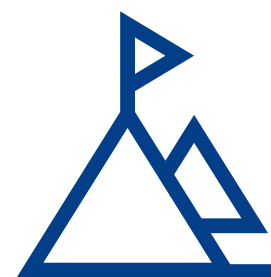
1 A carton package made of renewable or recycled materials, that are responsibly sourced, therefore helping protect and restore our planet's climate, resources and biodiversity; contributing towards carbon-neutral production and distribution; convenient and safe, therefore helping to enable a resilient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

2 Capital expenditures are a company's major, long-term expenses while operating expenses are a company's day-to-day expenses. Examples of CapEx

include physical assets, such as buildings, equipment, machinery, and vehicles. Examples of OpEx include employee salaries, rent, utilities, and property taxes. Source: <https://www.investopedia.com/>

3 Both operational and capital expenditures





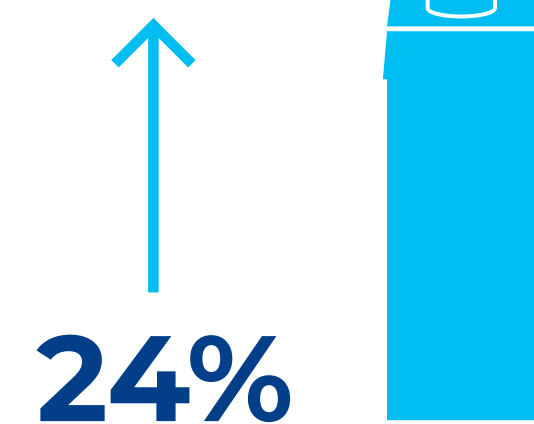
# Our progress in 2022

## Food packaging

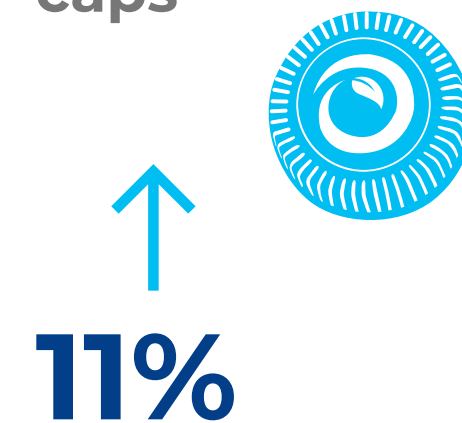
### World's most sustainable food packaging<sup>1</sup>

We continue to work towards our ambition to develop **the world's most sustainable food packaging**: 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. We are investing €100 million annually over the next five to ten years in the research and development of packages that are made with a simplified material structure to strengthen recyclability and increase renewable content, while never compromising food safety. As part of this, we are looking to raise the share of paper and reduce the amount of fossil-based plastic and aluminium. We are also introducing the use of certified recycled polymers<sup>2</sup> in our packaging.

Plant-based packages



Plant-based caps



% sold in 2022 compared to 2021

#### Innovating to increase use of renewable materials

Since 2015, with the launch of the Tetra Rex<sup>®</sup> plant-based package – conventional plastics made from plant-based oil. 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<sup>3</sup>. We continued this development and sold 24% more packages (8.8 billion)<sup>4</sup> and 12% more caps (11.9 billion) made with plant-based plastic in 2022, compared to 2021.

→ See the *Climate* chapter

In 2022 Tetra Pak moved to the next level of development – testing a fibre-based barrier to substitute the aluminium foil layer that is a first within food carton packages distributed under ambient conditions. In addition, in collaboration with **MAX IV**, we have embarked on ground-breaking research towards advancing fibre-based sustainable food packaging. The research aims to uncover fresh insights into the nanostructure of fibre materials, with the first application to optimise the composition of materials used



*The experiment conducted at ForMAX is a milestone for both academia and industry. The research station is the first of its kind and will facilitate both fundamental and applied industrial research on how new, sustainable materials<sup>5</sup> can be used going forward. We are proud to support Tetra Pak in its development of sustainable packaging for the future.*

**Kim Nygård,**  
Manager, ForMAX beamline, MAX IV

for paper straws, helping to uncover fresh insights into plant-based materials as a basis for future innovations. This is the very first industrial research and development experiment at ForMAX, a brand new research station dedicated to studying materials from the forest, located at the MAX IV Laboratory in Lund, Sweden.

[READ MORE](#)

<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> The recycled polymers used in Tetra Pak carton packages are produced under the RSB attribution model of chain of custody (RSB Advanced Products Category III, Recycled feedstock -100% attributed). This means that the plastics are made of a mix of recycled and non-recycled materials, with the corresponding mass of recycled materials tracked throughout the Tetra Pak supply chain. 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.

<sup>3</sup> In 2022, the amount of plant-based plastic used by Tetra Pak resulted in 131 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. Based on climate accounting internal calculations (volume x emission factor) considering 72.7 kilo tonnes of plant-based plastic purchased in 2022. To calculate the avoided emissions number, we use a third-party emission factor for the plant-based polymers from public available lifecycle assessment by Braskem. Source: [https://www.braskem.com.br/portal/imgreen/arquivos/LCA%20PE%2011m%20green%20bio-based\\_FINAL%20EN.pdf](https://www.braskem.com.br/portal/imgreen/arquivos/LCA%20PE%2011m%20green%20bio-based_FINAL%20EN.pdf)

<sup>4</sup> Volumes exclude Blend in BIO (BiB) sold in Brazil. BiB is a mix of 75% LDPE and 25% plant-based LDPE.

<sup>5</sup> In this context, sustainable materials are referred to as renewable, paper-based materials. Examples include wood, hemp, wool, and bamboo.



### Replacing virgin polymers with certified recycled polymers

We have introduced certified recycled polymers from the [Roundtable on Sustainable Biomaterials \(RSB\)](#) and the [International Sustainability & Carbon Certification \(ISCC\)](#)<sup>1</sup> in our packaging, to support our targets of increased use of recycled materials. Since 2020, two of our production sites in Europe have been certified by RSB to produce packaging material and additional materials with certified recycled polymer. This means that the plastics are made of a mix of recycled and non-recycled materials, with the corresponding mass of recycled materials tracked throughout the Tetra Pak supply chain. 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. In 2021, our packaging material factory and additional materials factory in Mexico were certified by the ISCC PLUS system. In 2022, we have started the ISCC PLUS certification process for a number of our European production sites.

In collaboration with Elvir, a subsidiary of Savencia Fromage & Dairy - a world-leading milk processor – Tetra Pak has become the first carton packaging player in the food and beverage industry to launch a cap using certified recycled polymers. Elle & Vire chose the HeliCap™ 23 cap solution to complement its cream products, which are distributed in Tetra Brik® Aseptic 1L Slim carton packages. This one-step resealable screwcap is manufactured at Tetra Pak's Châteaubriant plant in Loire-Atlantique, France – one of the sites that has been awarded the [RSB Advanced Products](#) certification.

[READ MORE](#)

Swiss dairy Emmi launched Tetra Top® carton package with certified recycled polymers for its Emmi's Good Day Milk Drink. The Tetra Top® 1000 Base carton package is made with recycled polymers manufactured under the [RSB](#) chain of custody attribution method.

[READ MORE](#)

### Tethering caps to prevent litter

To help prevent litter and meet the requirements of the EU directive on tethered caps which will come into effect in July 2024, deployment of Tetra Pak® tethered caps started in 2022 with the following customers.

- April 2022: Borrisoleigh Bottling Ltd in Ireland, Cido Grupa in the Baltics, Group Lactalis Spain and LY Company Group in Spain in different product categories – a market first for these geographies.
- September 2022: Coca-Cola Tria Epsilon, Greece, started using Tetra Pak® tethered caps on carton packaging across its juice drink range.
- November 2022: Danone Alpro has become the first plant-based drinks producer to switch from LightCap™ 30 Air cap to the newly released tethered cap LightWing™ 30 cap on Tetra Brik® Aseptic Edge 1000 carton package, with a self-locking hinge. The product is being launched in coffee shops in Germany and the UK, before being rolled out to retailers in several European markets.



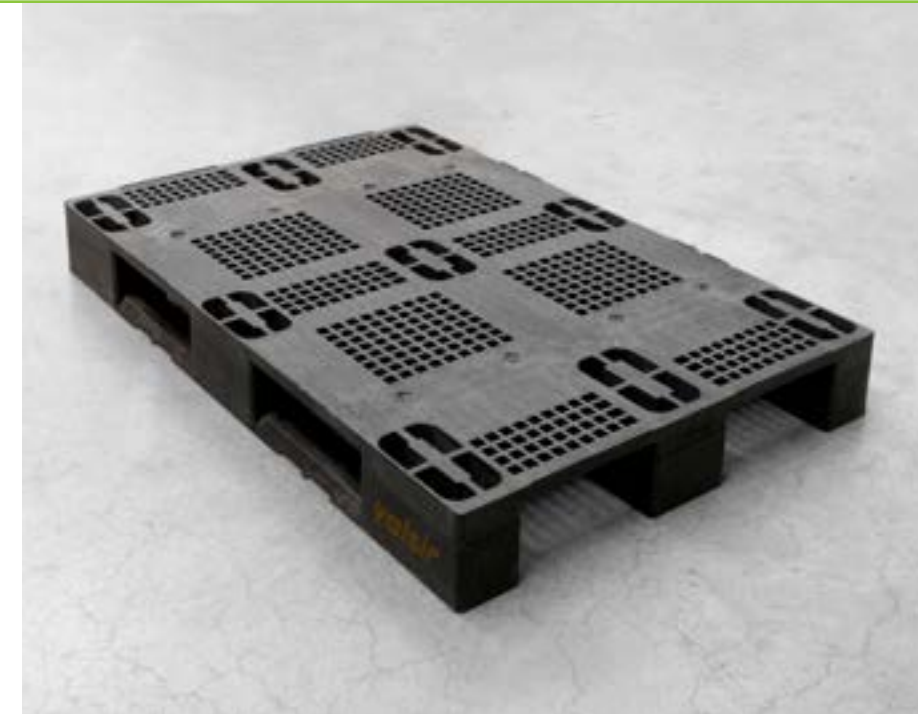
As we are accelerating the deployment of tethered caps, in 2022 we released the cap C38 Pro for Tetra Top® carton packages, which is based on a screw opening mechanism and, like other tethered caps, stays attached to the package to help prevent litter.

[READ MORE](#)

<sup>1</sup> 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.



Transportation pallets containing recycled polyAl



*Our company is producing transportation pallets made entirely from recycled plastics. Part of the recycled plastics that we use comes from the recycling of beverage cartons. Recycled polyAl from beverage cartons presents functional characteristics that are similar to recycled polyolefins, while offering the extra advantage of a shiny look.*

**Samuela Niboli,**  
Plant manager of Valsir Recycling Division

## Collection & recycling

In 2022, globally, 1.2 million tonnes<sup>1,2</sup> of paper-based carton packages were collected and sent for recycling<sup>3</sup>. The majority of carton packages collected for recycling today are being sent to paper mills, which recover the fibre, separating the polyAl<sup>4</sup>. The fibre is then reused into new products such as cardboard boxes, tissue paper and office paper. Where paper mills use dedicated pulpers to process carton packages, the remaining polyAl can be sent to plastic and aluminium recyclers to be recycled into products such as panels, pallets, crates, furniture, and tiles. We are seeing a growing number of polyAl recyclers, and it is part of our strategy to accelerate the recycling capacity for all materials of carton packages.

### Measuring recycling value

In line with our ambitions and strategy to grow recycling of all materials in collected carton packages, in addition to measuring carton package collection, we are also

monitoring how the materials get effectively recycled. We are doing this by estimating a global gross effective recycling rate, deducting the non-recycled polyAl from the volume of cartons collected for recycling.

In 2022, we estimate the global gross effective recycling rate<sup>5</sup> to be 20%, which equals to 1 million tonnes of materials in post-consumer carton packages effectively being recycled. This can be compared to a 25% global carton package collection rate<sup>6</sup>.

To increase the effective recycling rate, we are focusing on putting in place polyAl recycling capacities and develop end markets for recycled polyAl. In 2022, 1.2 million tonnes of carton packages were collected and sent for recycling. Out of that, the estimated amount of polyAl sent to recyclers was more than 100 kilo tonnes.

[READ MORE](#)

### Accelerating recycling locally

Our dedicated team of 70 recycling experts stationed at locations around the world works to activate, accelerate, and transform the collection and recycling of carton packages. Every day, they collaborate with recyclers, local authorities, and customers to provide insights on efficient collection and sorting schemes, and to co-invest with industrial partners in the recycling value chain. In 2022, there were approximately 200 recycling facilities for carton packages.

Recycling facilities that we collaborate with worldwide

**103 fibre**

Fibre recycling facilities recycle fibres by hydropulping

**61 polyAl**

PolyAl recyclers recycle polyAl by injection moulding, for example

**36 integrated**

Integrated recyclers recycle both fibre and polyAl (separately or together)

<sup>1</sup> Based on a global carton recycling rate of 25% and Tetra Pak sales of 193 billion packages, we estimate the 1.2 million tonnes of carton packages collected for recycling includes approximately 48 billion Tetra Pak carton packages.

<sup>2</sup> For the reported carton packages collected for recycling we use, where available, official publicly available data from renowned sources such as governmental agency, registered recovery organization, nationwide industry association, NGO etc. reported on a regular basis using a consistent approach.

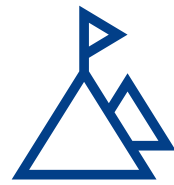
<sup>3</sup> Paper-based carton packages are recyclable where adequate collection, sorting and recycling infrastructures are in place

<sup>4</sup> The non-fibre component of carton packages is known as polyAl, which designates the layers of polyolefins and aluminium being used as barrier

against oxygen and humidity to protect the food content in aseptic carton packages.

<sup>5</sup> We estimate the gross effective recycling rate by deducting the non-recycled polyAl from the weight of carton package bales sent to recyclers. Any additional contaminants, impurities and moisture are not taken into account in this measure.

<sup>6</sup> Reported carton packages collection rate is based on the share of cartons collected and sent for recycling versus cartons deployed. We use, where available, official publicly available data from renowned sources such as governmental agency, registered recovery organization, nationwide industry association, NGO etc. reported on a regular basis using a consistent approach.

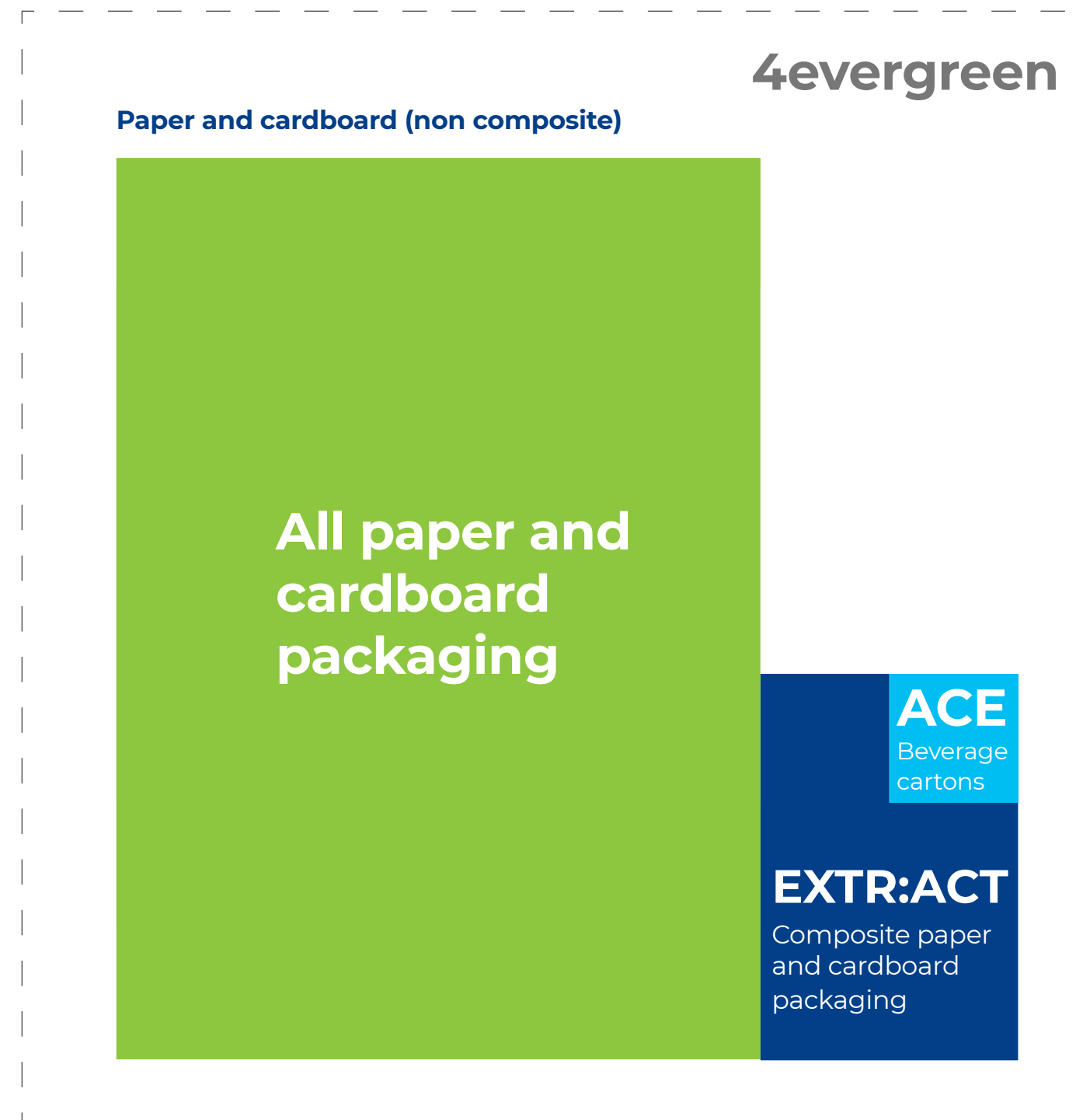


### Working with industry associations

We collaborated with the [Alliance for Beverage Cartons and the Environment \(ACE\)](#) on the 'Design for recycling' guidelines for carton producers alongside other industry players. The guidelines provide producers of beverage cartons with technical guidance to identify the materials compatible with existing recycling processes and how the recyclability of paper-based beverage cartons can be optimised.

[ACE](#) and [EXTR:ACT](#) highlight that collection is precondition to the recycling of any material. While local authorities usually drive and control waste collection infrastructures, Tetra Pak supports them by advising on most efficient collection schemes, and invests in increasing recycling capacities and end markets for recycled materials from used carton packages.

We are an active member of [4evergreen](#), an alliance representing the entire lifecycle of European fibre-based packaging, from mono-material corrugated cardboard to composite food and beverage packaging. The goal of 4evergreen is to reach 90%



recycling rate for all fibre-based packaging by 2030 in Europe. In 2022, the alliance released an initial draft of the [Recyclability Evaluation Protocol](#), a test methodology established to ensure the suitability of packaging recycling in standard paper mills, as well as [Circularity by Design Guideline for mono-material packaging processed in standard mills](#). In 2023, the alliance will publish guidance for multi-material packaging processed in specialised mills.

**In 2022, we invested nearly €30 million<sup>1</sup> in different projects around the world to further increase the collection and recycling of used carton packages worldwide. Going forward, our ambition is to invest up to €40 million<sup>2</sup> in collection and recycling projects around the world in support of our three goals:**

- Contribute to achieving a 70% recycling rate carton package target in the European Union by 2030<sup>3</sup>.
- Fulfil national recyclability criteria in all countries we sell packaging.
- Fulfil Ellen MacArthur Foundation's (EMF) Global Commitment<sup>4</sup>.

To deliver on these goals, we have defined three different areas of focus dependent on market conditions:

### ■ Driving higher recycling performance

In countries with an already mature waste management sector, we support system-wide action and cooperation, advocate for efficient legislation to guide optimized collection systems, and contribute to the acceleration and scaling of sorting and recycling capacities.

### ■ Advancing and transforming the recycling value chain

In countries with already existing waste management infrastructure, we facilitate

the transformation and optimisation of the sector, including adequate recycling capacity, building structural advancements in waste collection and sorting capabilities, and help to prepare for potential future Extended Producer Responsibility (EPR) schemes.

### ■ Activating collection and recycling

In countries with a primarily informal waste management sector, we initiate new collection programmes, contribute to establishing sufficient recycling capacity, and build circular economy awareness.

See the map to explore collection and recycling initiatives in 2022.

Collection in Vietnam



<sup>1</sup> Both operational and capital expenditures. Capital expenditures are a company's major, long-term expenditures while operating expenditures are a company's day-to-day expenditures.

<sup>2</sup> Both Operating Expenditure (OPEX) and Capital Expenditure (CAPEX).

<sup>3</sup> Collection increase depending on supporting policy implementation per EU member country.

<sup>4</sup> The Global Commitment is led by the Ellen MacArthur Foundation, in collaboration with the UN Environment Programme. Through

the Global Commitment, businesses and governments commit to change how we produce, use, and reuse plastic. They will work to eliminate the plastic items we don't need; innovate so all plastic we do need is designed to be safely reused, recycled, or composted; and circulate everything we use to keep it in the economy and out of the environment." Source: <https://ellenmacarthurfoundation.org/global-commitment-2022/overview>

# Collection and recycling initiatives

[READ MORE](#)  
about each  
initiative

- Driving higher recycling performance
- Advancing the recycling value chain
- Activating collection and recycling
- Supporting workers in collection and recycling

1. Lucart, Italy and France 2. Ecorevive and Ecoplasteam, Italy 3. Comieco and SPV, Italy and Portugal 4. Plastigram and Stora Enso, Poland and Czech Republic 5. Recon Polymers, Netherlands 6. Target for recycling rate, Austria and Netherlands  
 7. Palurec, Germany 8. Alier and Trans Sabater, Spain 9. Beverage cartons in collection fractions, Denmark 10. Panda Recycling, Ireland 11. Ayti entegre, Türkiye 12. Stora Enso, Benelux 13. Kaiyuan and Shunrunkang, China 14. Luhai Pro-environment, China  
 15. saveBOARD, Australia and New Zealand 16. Bio Pappel®, Mexico 17. Recicla Cidade, Brazil 18. Carton Council, Great Lakes Tissue Company and St. Mary Cement, United States 19. PRO Vietnam, BVRio and Dong Tien, Vietnam  
 20. Junk shops, Philippines 21. Uniboard, Egypt 22. Obeikan Paper Industries and Saudi Top Plastics, Saudi Arabia 23. Cempre, Columbia 24. Proplanet, Columbia 25. Tu Papel Cuenta, Panama and Guatemala  
 26. First recycling facility, Paraguay 27. Innova Industrias Mills, Nicaragua 28. Cataki Project, Brazil 29. Bal Vikas Dhara, India

# Furniture made from recycled carton packages

In 2022, we collaborated with Dutch design firm, [Aectual](#), to create a series of furniture made entirely from polyAl. Launched at the Milan Design Fair in June 2022, the [Aectual x Tetra Pak concept line](#) includes stylish and functional stools, planters, wall panels, window screens and more - all 3D printed. The products are created using less materials, there's no stock and production is on demand. After use, products are returned, shredded, and reprinted to create new products – reducing up to 600% of material over a 50-year period. Our recently opened offices in Tokyo, Japan, and in Dublin, Ireland, have several pieces of Aectual furniture, and this product line will also be used in our offices in Sweden, Singapore, and Italy in 2023.

[READ MORE](#)



To the right: Tetra Pak, Tokyo  
Below: Aectual x Tetra Pak concept line



*Aectual developed and is commercializing a range of design furniture made from the recycled plastics and aluminium content of carton packages. We are expanding the use of these products in our offices. It is part of our Future Work Experience strategy to ensure that we live up to our promise to protect food, people and the planet in our workplace every day.*

**Sudhir Saseedharan,**  
FREM Director of Workplace Experience & Real Estate



## Food processing and packaging equipment

**We are applying circular design principles<sup>1</sup> in the improvement and innovation of our new food processing and packaging equipment, focusing on efficiency to help reduce food waste and energy and water consumption at our customers' sites. We are also working to extend lifespans by repairing and refurbishing equipment which can then be remarketed.**

We are offering Tetra Pak® Certified Renovated Equipment, a high-quality and cost competitive second-hand filling equipment portfolio, with certified performance, pre-defined warranty and unlimited access to worldwide services and support. We recuperate previously used equipment and renovate them to match Tetra Pak® high quality standards. This can include restoring missing parts, installing upgrade kits for obsolescence, and removing corrosion and rust to allow the equipment to be kept in use longer. In 2022, 41 filling machines and 65 pieces of distribution equipment were renovated and made available to be remarketed.

→ See the *Climate* chapter

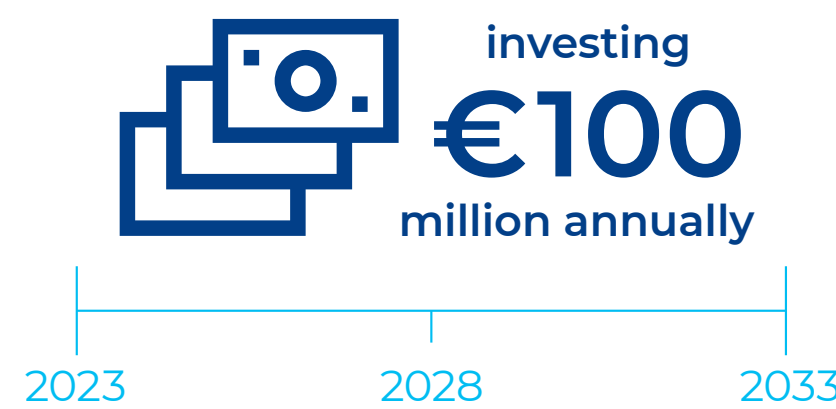
<sup>1</sup> According to the EMF, circular design applies and enables the three principles of the circular economy: Eliminate, Circulate, Regenerate. Source: <https://ellenmacarthurfoundation.org/an-adaptive-strategy-for-circular-design>

# >> What's next?

We will continue to work towards our ambition to drive circular solutions by designing out waste 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:



In February 2023, Lactalis Group, a world leading dairy player, revamped its organic ambient liquid cream in Tetra Brik® Aseptic cartons under its Bridélice and Président brands with certified recycled polymers in the packaging material – a first in France. The development supports Lactalis Group's efforts to foster innovative solutions towards a more circular packaging economy.



Invest up to €100 million per year over the next five to ten years to further reduce the environmental impact of paper-based carton packages, including the research and development of packages that are made with a simplified material structure and increased renewable content.



Follow the EMF's definition of circular economy, ensuring that we drive circular economy systematically throughout businesses, set circularity targets and measure progress. Start executing the three-year EMF partnership plan which will first focus on internal capacity building, circularity of food, and collaboration on value of circular fibre-based packaging.

Take an exemplary role in industry collaborations to create a material agnostic, standard definition and assessment of what constitutes a recyclable package to enable homogeneity in design for recycling guidelines across geographies.



# 70%

Contribute to achieving a 70% recycling rate carton package target in the European Union by 2030<sup>1</sup>, fulfil national recyclability criteria in all countries we sell packaging, and fulfil EMF's Global Commitment<sup>2</sup>

<sup>1</sup> Collection increase depending on supporting policy implementation per EU member country.

<sup>2</sup> The Global Commitment is led by the Ellen MacArthur Foundation, in collaboration with the UN Environment Programme. Through the Global Commitment, businesses and governments commit to change how we produce, use, and reuse plastic. They will work to eliminate the plastic items we don't need; innovate so all plastic we do need is designed to be safely reused, recycled, or composted; and circulate everything we use to keep it in the economy and out of the environment." Source: <https://ellenmacarthurfoundation.org/global-commitment-2022/overview>



# Climate

## Taking action on climate

According to the latest Intergovernmental Panel on Climate Change (IPCC) Report, the world is already 1.1°C hotter than pre-industrial levels, and unfortunately, the global climate crisis continues to grow increasingly dire<sup>1</sup>. Keeping warming to 1.5°C above pre-industrial levels requires deep, rapid and sustained greenhouse gas (GHG) emissions reductions in all sectors. The National Oceanic and Atmospheric Administration (NOAA) and NASA reported 2022 to be one of the hottest years with some of the most extreme – and most costly – weather events on record<sup>2</sup>.

Corporate sustainability leaders have taken action. Currently, more than 40% of the world's largest publicly traded companies

have made net-zero commitments as of the end of 2022, up from 20% in December 2020<sup>3</sup>. However, only 50% of companies with net-zero targets were found to have a GHG emissions reduction plan that includes intermediate targets<sup>4</sup>.

Food systems are sustained by carbon-intensive activities including agriculture, land use, and supply chain activities such as industrial processes and packaging, and account for one-third of total GHG emissions<sup>5</sup>. As of April 2023, more than 4,500 companies have set or committed to developing science-based targets<sup>6</sup>, 290 of which are from the food and beverage processing sector and only 87 are from the containers and packaging sector<sup>7</sup>.

products and company, and carbon compensation to balance unavoidable residual emissions through nature-based solutions and other initiatives. Scope 1 and 2 GHG emissions combined were reduced by 27% compared to our 2019 baseline. Tetra Pak operations = Scopes 1, 2 and business travel, our value chain = Scopes 1, 2 and 3.

9 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.

10 The target boundary includes land related emissions and removals from bioenergy feedstocks.

11 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.

1 IPCC Report. Source: [https://www.ipcc.ch/report/ar6/syr/downloads/press/IPCC\\_AR6\\_SYR\\_PressRelease\\_en.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/press/IPCC_AR6_SYR_PressRelease_en.pdf)

2 Source: NOAA, NASA to announce 2022 global temperature, climate conditions | National Oceanic and Atmospheric Administration

3 Source: <https://zerotracker.net/>

4 Source: <https://zerotracker.net/analysis/net-zero-stocktake-2022>

5 Crippa, M. et al. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. Nature Food 2.3. Source: <https://www.nature.com/articles/s43016-021-00225-9#citeas>

6 Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C. Source: <https://sciencebasedtargets.org/how-it-works>

7 Source: <https://sciencebasedtargets.org/companies-taking-action>

8 Our decarbonisation efforts focus on avoiding and mitigating GHG emissions correlated to our

### Why it matters

The world is already 1.1°C hotter than pre-industrial levels. To avoid the widespread adverse impacts and related losses and damages to nature and people, keeping warming to 1.5°C above pre-industrial levels requires deep, rapid and sustained GHG emissions reductions in all sectors.

### SDGs



### Ambition

Take action on mitigating climate change by decarbonising<sup>8</sup> our operations, products, and our value chain.

### Targets

- 🕒 By 2030, achieve net-zero GHG emissions in our operations (scopes 1 and 2 and business travel)<sup>9</sup> and -46% GHG reduction across our value chain in line with 1.5°C SBTi commitment compared to our 2019 baseline<sup>10</sup>
- 🕒 By 2030, source 100% renewable electricity in our operations in line with RE100 commitment
- 🕒 By 2030, reduce the carbon footprint of our best practice processing lines by 50% compared to 2019
- 🕒 By 2050, work together with our suppliers, customers and other stakeholders to achieve net-zero GHG emissions across our value chain (scopes 1, 2 and 3)<sup>11</sup> compared to our 2019 baseline

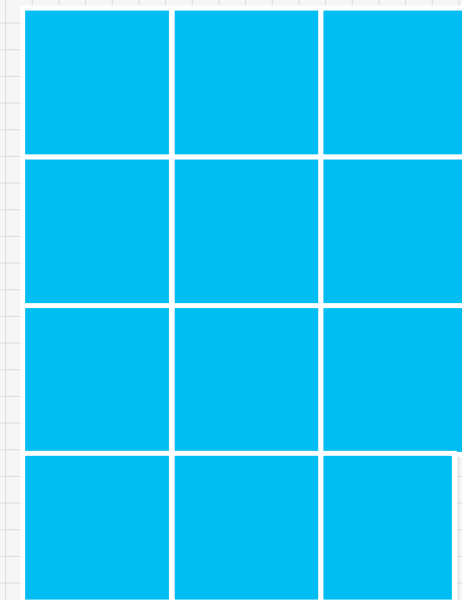
# 2022 highlights

Plant-based sold



8.8 billion packages<sup>1</sup>

billion packages<sup>1</sup>



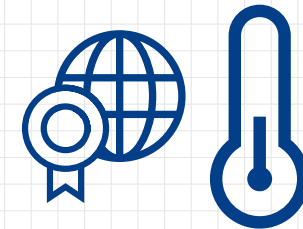
11.9 billion caps

billion caps

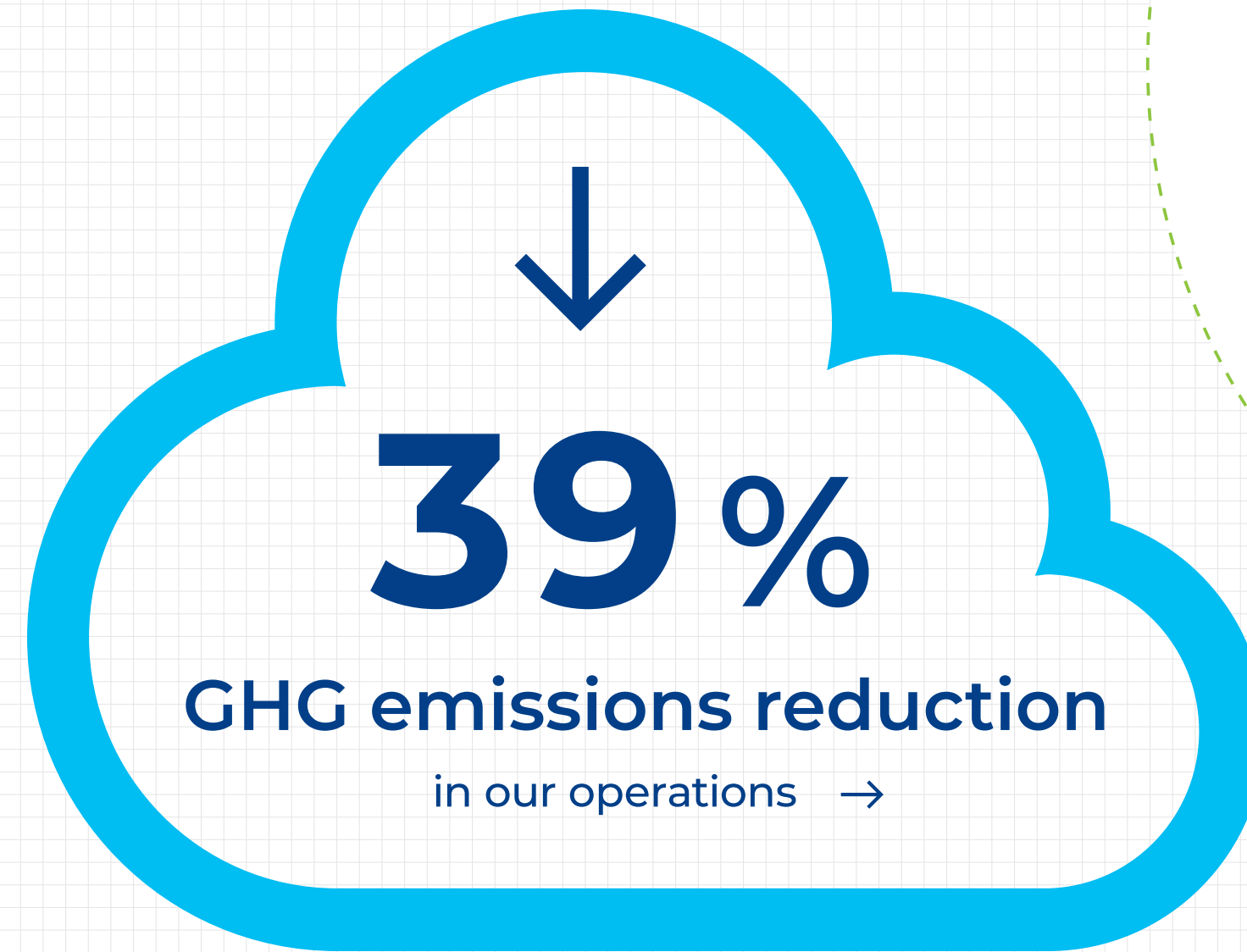
131

kilo tonnes CO<sub>2</sub> SAVED

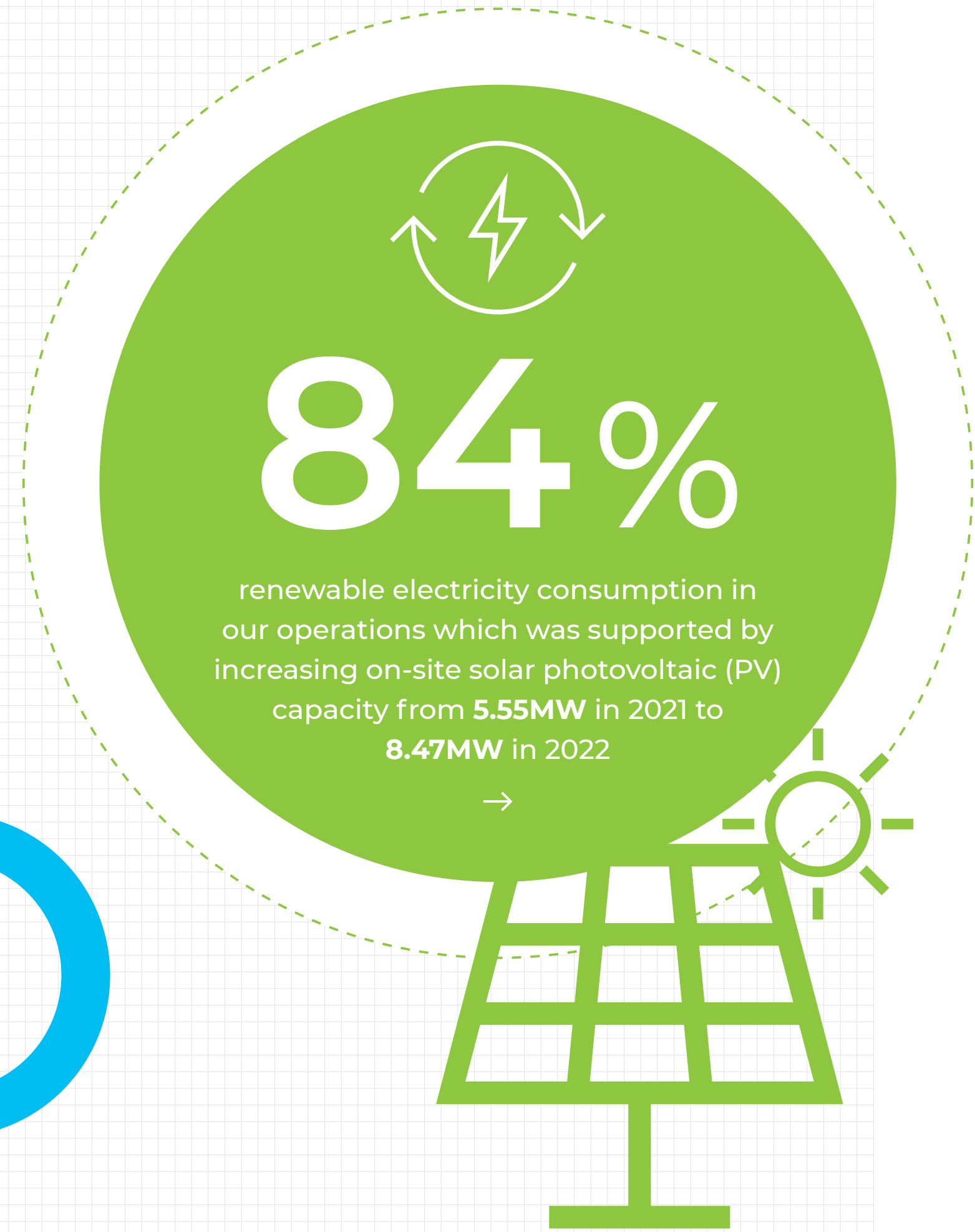
compared to the level of CO<sub>2</sub> which would have been emitted if using fossil-based plastic<sup>2</sup> →



Achieved an 'A' for climate change by the CDP for the sixth time →



(Scopes 1,2 and business travel) compared to our 2019 baseline and 5% GHG emissions reduction across our entire value chain (Scopes 1,2 and 3) compared to our 2019 baseline



<sup>1</sup> Volumes exclude Blend in BIO (BiB) sold in Brazil. BiB is a mix of 75% LDPE and 25% plant-based LDPE  
<sup>2</sup> Based on climate accounting internal calculations (volume x emission factor) considering 72.7 kilo tonnes of plant-based plastic purchased in 2022. To calculate the avoided emissions number, we use a third-party emission factor for the plant-based polymers from public available lifecycle assessment by Braskem. Source: <https://www.braskem.com.br/acv-studies>



## Tetra Pak's role

As a leading manufacturer of food packaging and processing solutions our value chain relies on natural resources such as water, forests, and minerals, all of which are increasingly at risk as climate change amplifies droughts, deforestation, and depletion of mineral resources. We are looking at the whole value chain, from working upstream on (1) raw materials and transportation, decreasing GHG emissions in (2) Tetra Pak's operations, to working with customers downstream on the impact of (3) sold equipment.

At Tetra Pak, we commit to addressing climate change and recognise the importance of setting ambitious targets for transparent and meaningful climate actions, that are aligned with best practices. A critical part of our climate strategy is to work together with our suppliers,

customers and other stakeholders to achieve net-zero GHG emissions across the value chain (scopes 1, 2, and 3)<sup>1</sup> by 2050 from a 2019 baseline, a target which has been approved by the Science Based Target Initiative (SBTi)<sup>2</sup>. To achieve this, we have set a goal to achieve net-zero emissions in our operations (scopes 1, 2 and business travel) by 2030. Our net-zero trajectory comprises reduction, mitigation, and compensation measures across our operations as well as relevant parts of the value chain, from raw materials to impact of sold equipment and packaging. These efforts not only help mitigate our own climate impact but also contribute to keep global temperature rise limited to 1.5°C globally<sup>3</sup>.

[READ MORE](#)

<sup>1</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>2</sup> Source: <https://sciencebasedtargets.org/companies-taking-action>

<sup>3</sup> UN News Global perspective Human stories: UN climate report: It's 'now or never' to limit global warming to 1.5 degrees. Source: <https://news.un.org/en/story/2022/04/1115452>

# Tetra Pak's NET-ZERO Roadmap

Our journey in line with a 1.5°C<sup>3</sup> pathway  
– decarbonising energy & materials<sup>4</sup>



## Decoupling & reducing emissions

### Our Milestones

Set & achieved first value chain goal to cap GHG emissions at 2010 level despite business growth

Reduced operational emissions<sup>1</sup> by 71% between 2010 and 2020

Reduced value chain<sup>2</sup> emissions by 19%

## Accelerating and moving faster

### Value chain target

Revised SBTi goal to reduce GHG emissions<sup>2</sup> by 46% by 2030 (2019 baseline)

### Operational targets

Achieve Net-Zero GHG emissions in own operations<sup>1</sup> by 2030

Reduce business travel related GHG emissions by 50% by 2030

100% renewable electricity in all our sites by 2030

Reduce GHG emissions in our operations<sup>1</sup> by 70%

Balance remaining emissions with land restoration in Brazil

### Packaging material

Targets & plans developed with suppliers to reduce the impact of purchased raw materials by 50%

Driving recyclability & recycling

### Best practice lines

Accelerate development and deployment of processing and filling solutions with 50% less emissions per unit of production

## Scale systems wide decarbonisation<sup>3</sup> of energy & materials through the value chain

Reduce fossil-based material use, increase share of renewable and recycled material

Drive electrification of our equipment offering to enable customers to utilise decarbonised electricity grids

Partner with transport suppliers to increase share of renewable fuels and energy for transportation

Scale carbon removal solutions with value chain stakeholders

## Our target

Reduce absolute emissions<sup>2</sup> by 90%

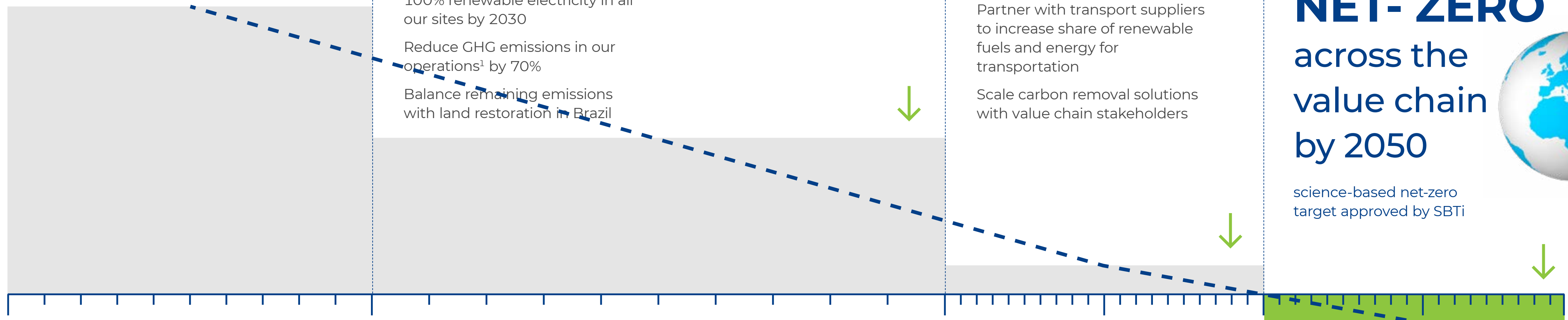
Balance remaining emissions<sup>2</sup> by removing and storing CO<sub>2</sub> through natural or technical solutions

**Work together with suppliers, customers and other stakeholders to reach**

# NET-ZERO across the value chain by 2050



science-based net-zero target approved by SBTi



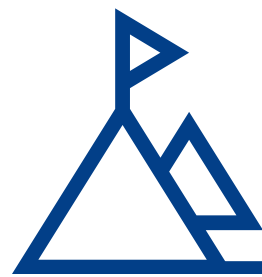
2010

2020

2030

2050

<sup>1</sup> Scopes 1, 2 & business travel  
<sup>2</sup> Scopes 1, 2 & 3  
<sup>3</sup> <https://sciencebasedtargets.org/business-ambition-for-1-5c>  
<sup>4</sup> Decarbonisation: reducing or CO<sub>2</sub> emissions associated with electricity, industry and transportation (adapt 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° pathways; and neutralizing impact of any emissions by permanently removing an equivalent volume of CO<sub>2</sub> (adapted from SBTi Corporate Net-Zero Standard)



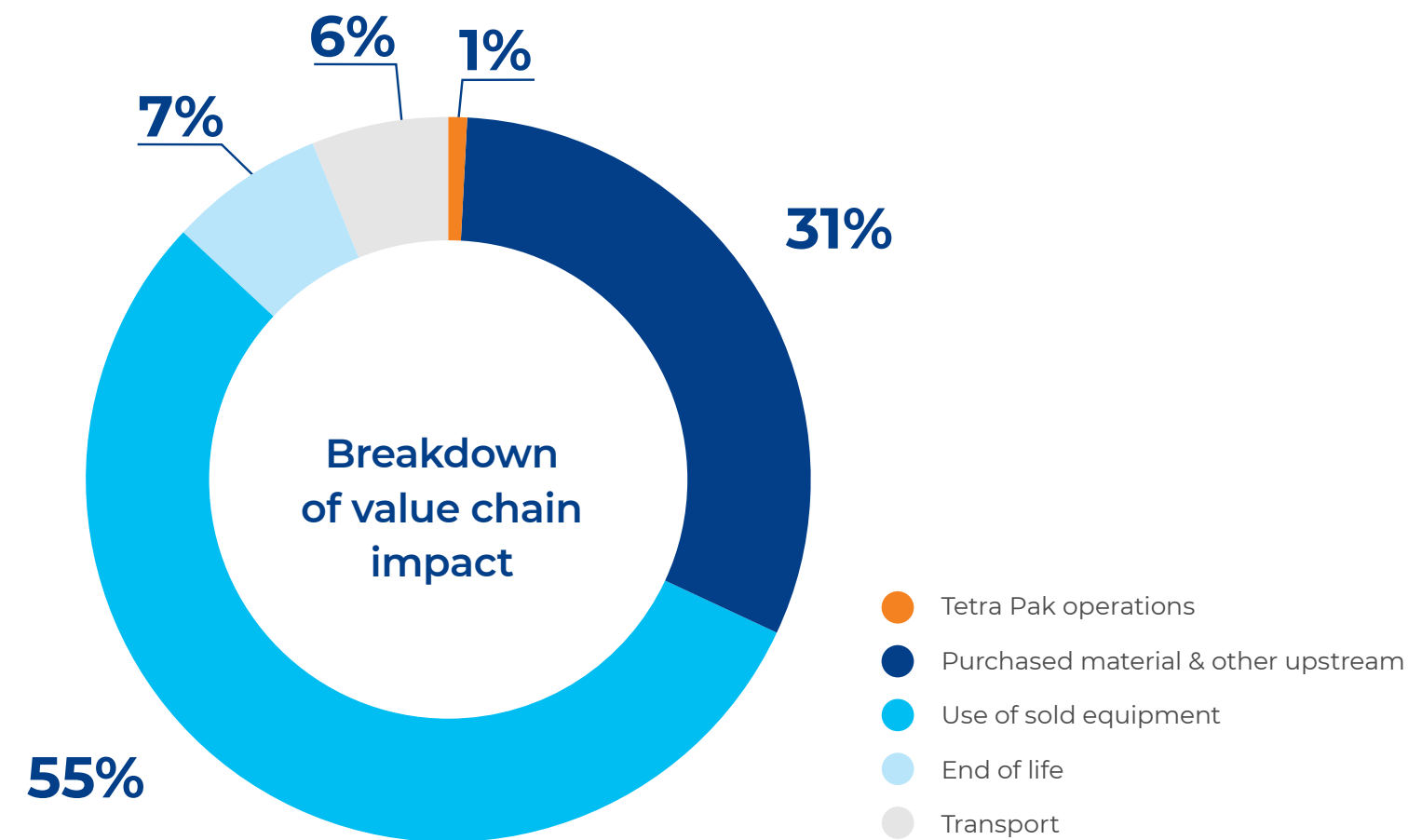
# Our progress in 2022

## Raw materials

We aim to reduce the climate impact of our suppliers' materials by working collaboratively replacing fossil-based plastics with plant-based plastics and testing a fibre-based barrier to substitute the aluminium foil layer in aseptic carton packages.

### Collaborating with our suppliers to reduce climate impact

Since launching our 'Join us in Protecting the Planet' initiative two years ago, we've been working closely with 45 out of 60 of our base materials suppliers<sup>1</sup> to improve on the areas of climate, biodiversity, and circularity. These 45 suppliers account for 99.5% of our purchase volume and 99% of our base materials' GHG emissions in 2022. We have set 20 actions across Climate,



Biodiversity, and Circularity, committed to by our base materials suppliers between now and 2030 – 'Twenty actions by 2030'. Our aim is for our suppliers to reduce their GHG emissions by 50% by 2030 by setting actions to decrease the climate impact of purchased raw materials.

See the *Collaborating with suppliers* spotlight story

Sugar cane



Paper

<sup>1</sup> Base materials are the materials we use to produce the packaging we sell to food and beverage producers, including paperboard, polymers, aluminium foil and inks.



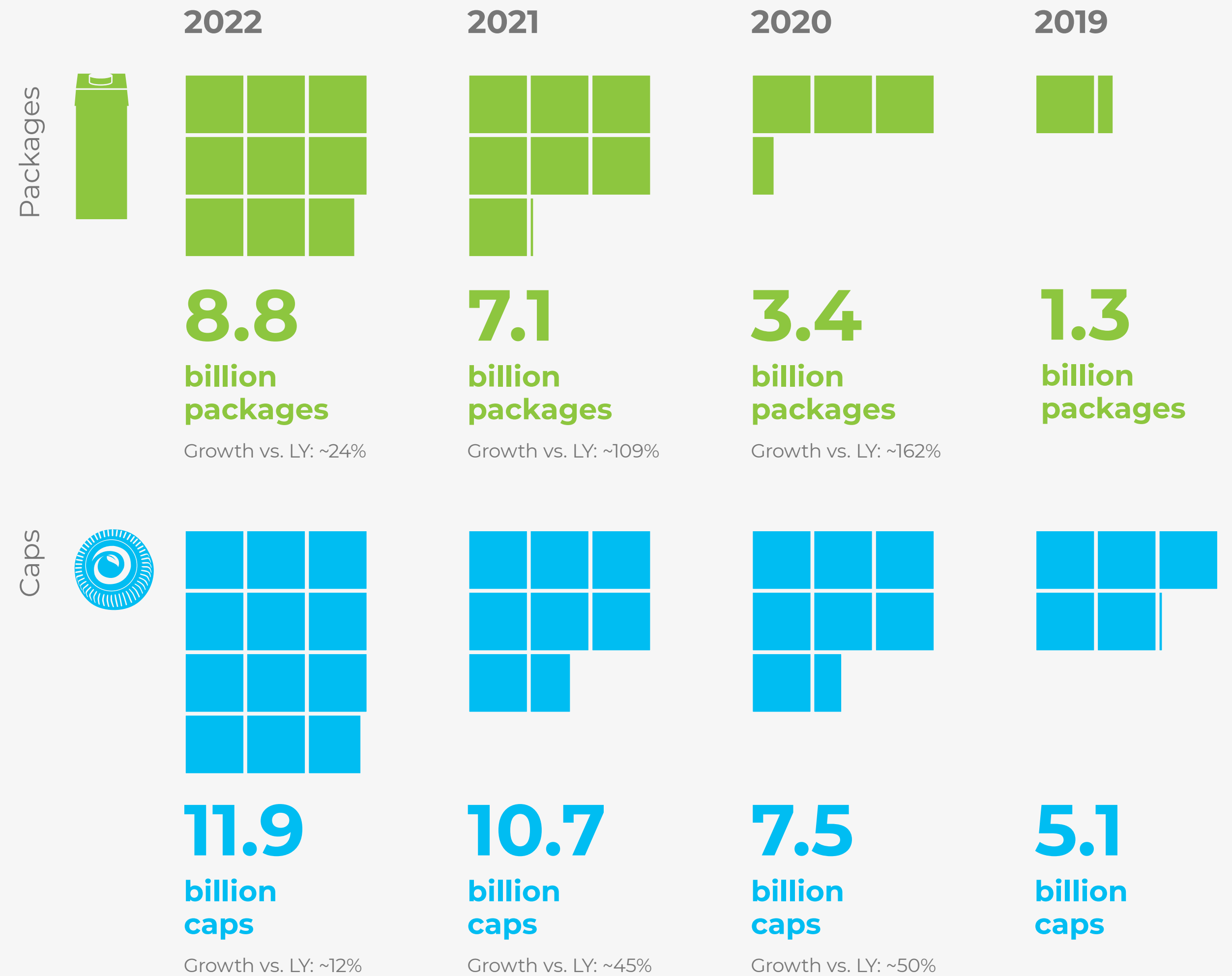
### Replacing fossil-based with plant-based plastic

We have increased the use of plant-based plastics over fossil-based plastics, selling 8.8 billion plant-based packages<sup>1</sup> and 11.9 billion plant-based caps in 2022, compared to 7.1 billion and 10.7 billion respectively in 2021. The amount of plant-based plastic, which amounts to approximately 9% of the total amount of plastic we bought in 2022, resulted in 131 kilotonnes 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>2</sup>.

### Replacing aluminium foil with a fibre-based layer

Marking a breakthrough in our journey towards a fully renewable aseptic carton package, in 2002 we tested a fibre-based barrier to substitute the aluminium foil layer in aseptic carton packages, a first within food carton packages distributed under ambient conditions. Early results suggest that the package with a fibre-based barrier can offer CO<sub>2</sub> reduction when compared to traditional aseptic cartons<sup>3</sup>, with comparable shelf life and food protection properties<sup>4</sup>. Cartons with higher paper content<sup>5</sup> are also more attractive for paper mills; thus, this concept presents clear potential for realising a low carbon circular economy for packaging<sup>6</sup>.

## Plant-based packages and caps growth



<sup>1</sup> Volumes exclude Blend in BIO (BiB) sold in Brazil. BiB is a mix of 75% LDPE and 25% plant-based LDPE

<sup>2</sup> Based on climate accounting internal calculations (volume x emission factor) considering 72.7 kilo tonnes of plant-based plastic purchased in 2022. To calculate the avoided emissions number, we use a third-party emission factor for the plant-based polymers from public available lifecycle assessment by Braskem. Source: <https://www.braskem.com.br/acv-studies>

<sup>3</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>4</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.

<sup>5</sup> Comparison between Tetra Pak carton packages

<sup>6</sup> Comparison between Tetra Pak carton packages



## Tetra Pak's operations

In 2022, we have reduced our operational footprint (scopes 1, 2 and business travel) by 39% compared to our 2019 baseline. This reduction was mainly driven by reduced business travel compared to the 2019 baseline and a strongly increased use of renewable electricity and also supported by reductions in our scope 1 emissions as we focus on shifting away from fossil fuel use.

[READ MORE](#)

We have been recognised for leadership in corporate transparency and performance on climate change by the global environmental non-profit CDP. We have been reporting on climate change since 2009 having secured a place on its prestigious 'A List' a total of 6 times for climate. In 2022, Tetra Pak was one of the 296 companies that achieved a 'A' in climate change, out of nearly 15,000 companies that were scored.

39%

GHG emissions reduction  
in our operations<sup>1</sup>



*All businesses must have clear targets and plans to align their value chain impacts with what our planet can sustainably provide. Tetra Pak is one of just 18 companies in the world to have a place on CDP's A List for climate change and forests in 2022. This small group of companies are leading the pack when it comes to transparently disclosing and acting on their environmental impacts.*

**Maxfield Weiss,**  
Executive Director CDP Europe

<sup>1</sup> Scopes 1, 2 and business travel



Kunshan Integrated Site in China

**Targeting 100% renewable electricity use in our operations by 2030**

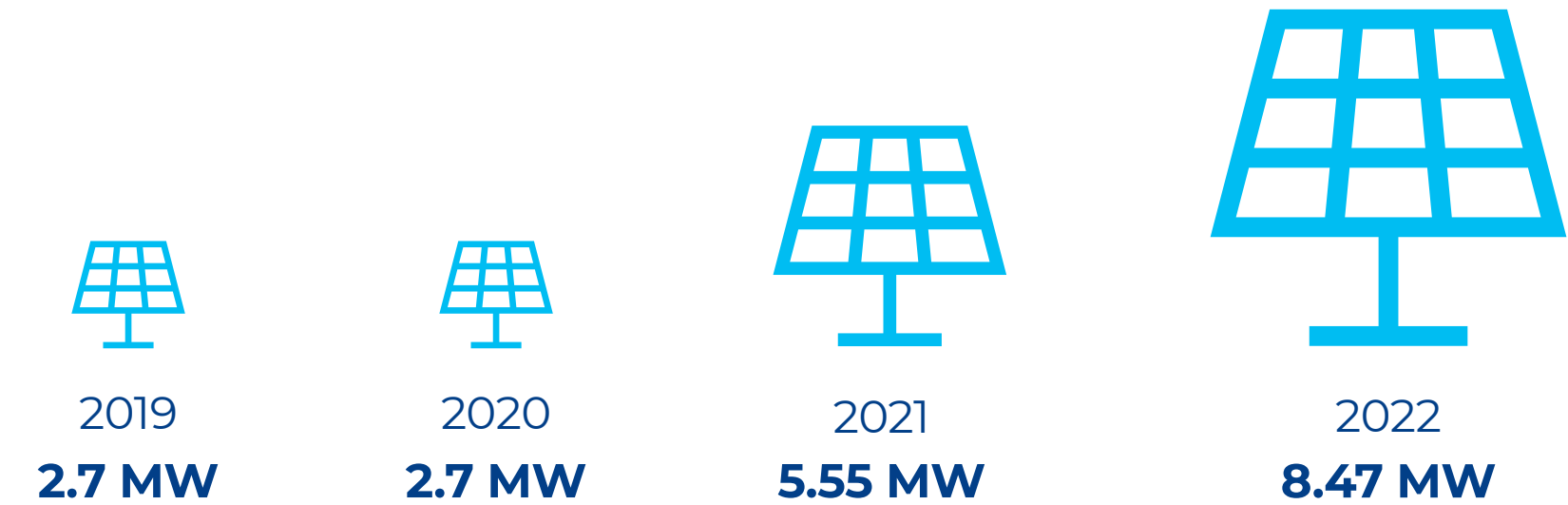
In line with the RE100 commitment we made in 2016, we have achieved 84% renewable electricity consumption in 2022 as a result of increasing our on-site solar photovoltaics (PVs) capacity from 5.55MW in 2021 to 8.47MW in 2022. This increase includes the new installation of 6,500 m<sup>2</sup> of solar PVs on the rooftops of our Kunshan Integrated Site in China generating up to 1200 MWh annually, avoiding 850 tons of CO<sub>2</sub> emissions per year alone. This is one of the concrete measures that Tetra Pak China has taken to achieve carbon neutrality across all its operations by 2030 and across its value chain by 2050.



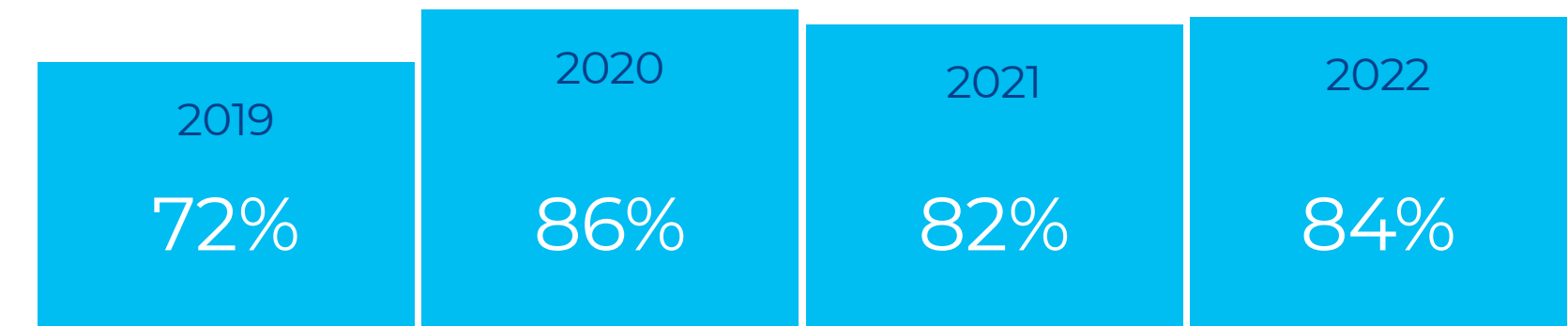
“ We are convinced that collaboration across the value chain can help to establish the concept of sustainable consumption more effectively where we reduce CO<sub>2</sub> emissions, necessary for the creation of a low-carbon and circular economy in China<sup>1</sup>. Our carbon neutrality targets and action plan is both a goal and a solemn commitment.

**Paul Zhu,**  
President of Tetra Pak Greater China

**Onsite solar photovoltaics (PVs) capacity**



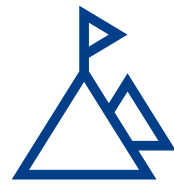
**Renewable energy consumption in Tetra Pak operations**



In 2022, our factory in Chakan, India, shifted from onsite natural gas energy generation to grid electricity. Once the switch was completed in Q4 2022, the site saw a reduction in direct emissions by 3.1 kTCO<sub>2</sub>e. We expect a further 10.3 kTCO<sub>2</sub>e reduction for the full year 2023. In total this will lead to a 20% reduction in direct emissions and an 8% reduction (100,000 m<sup>3</sup>) in water consumption previously used to cool the gas generators<sup>2</sup>.

<sup>1</sup> Information about China's carbon neutrality goals can be found at China maps path to carbon peak, neutrality under new development philosophy (www.gov.cn)  
<sup>2</sup> Savings for emissions and water are versus 2021 i.e., before the project was initiated, these reductions are for the Chakan site alone and the impact associated with removing the gas generators specifically.





### Increasing energy efficiency with the Common Energy Monitoring Platform (CEMP)

One of the important measures we have taken to reduce energy consumption while increasing efficiency is the CEMP project, which focused on creating a common platform that enables transparency of overall energy usage, cost, and production, as well as indoor/outdoor climate and weather data in real-time across all our sites. A baseload test conducted in November 2022 at our Rubiera plant in Italy highlighted the potential to reduce out-of-hours consumption by 65%. This translates to a 6% reduction in overall site consumption. Following the successful pilot, the goal is to implement the initiative across all sites by 2024.

### Increasing energy efficiency in our offices

We also aim for energy efficiency in our offices, with our new Pacific Center Tower offices in Panama having achieved LEED Platinum<sup>1</sup> and Fitwel 3 Stars certification<sup>2</sup>. Both ratings focus on buildings that improved efficiency, lowered their CO<sub>2</sub> emissions, and optimised health and wellbeing for people.



*Energy efficiency is an essential tool for achieving our net-zero operations target, but also delivering a great benefit for society. We can all be proud of energy efficiency initiatives we've carried out until now. With CEMP, we are taking it to the next level and making it future-fit.*

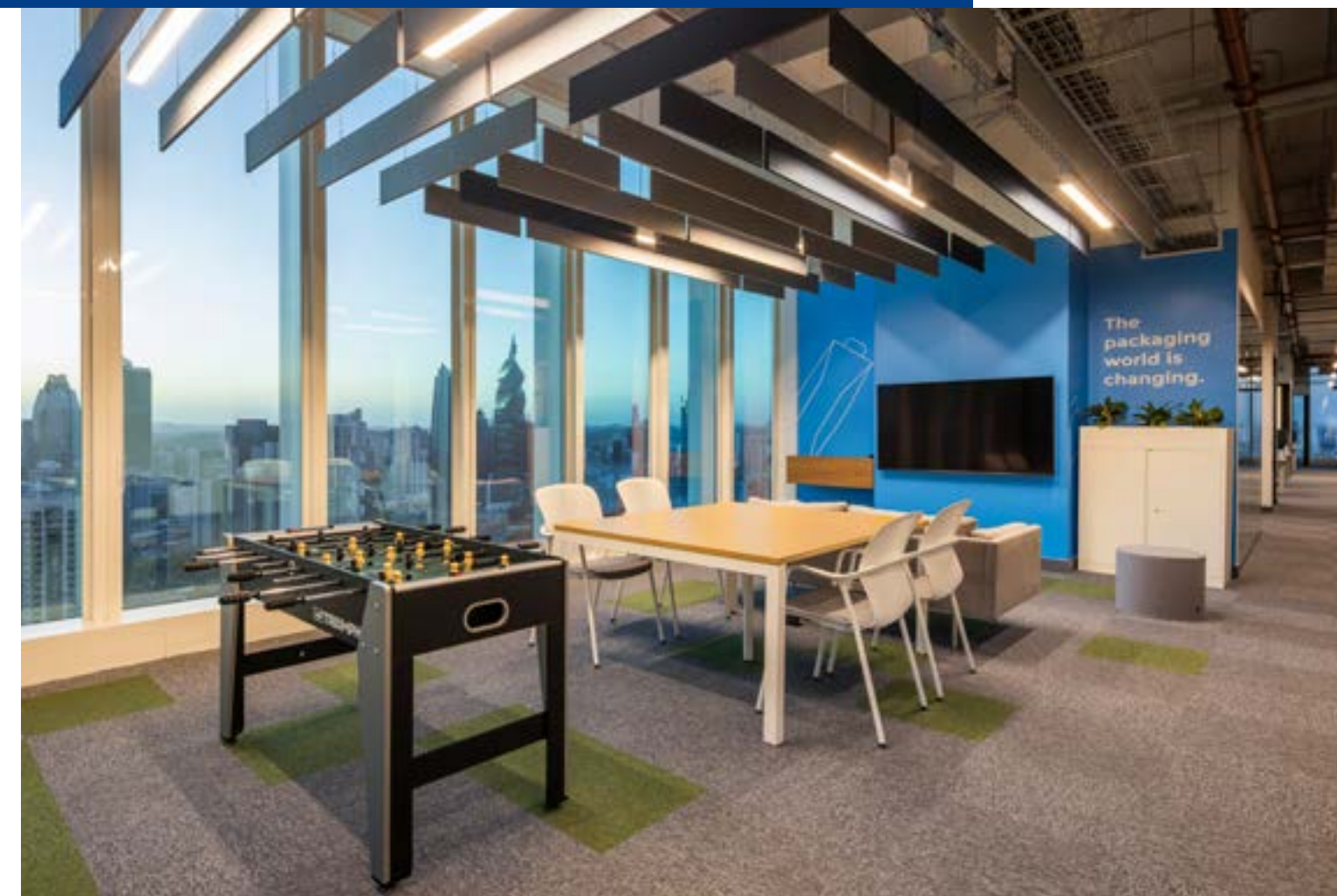
**Gözde Yilmaz Ozhamamci,**  
Director Site Sustainability, Facility & Real Estate Management (FREM)



Interior of Tetra Pak's Panama office

### Phasing out the use of fossil fuels in our onsite vehicles

We are switching to electric factory forklifts used in production and warehousing. Tetra Pak Queretaro, Mexico, is moving the biggest counterbalances forklifts trucks with a loading capacity of 5,000 kilos (3 units), 6,000 kilos (1 unit) and 7,000 kilos (1 unit) from gas<sup>3</sup> to electric by the end of March 2023. With that, they will help save 107 tonnes of CO<sub>2</sub> emissions<sup>4</sup> per year and improve the working environment for colleagues.



### Reducing transportation distances

Our Services Supply Network (SSN) is moving from a traditional centralised supply chain to a combined central-regional setup, decentralising shipping and focusing on reducing overall transportation distances, number of shipments and logistics, as well as handling activities. In 2022, as we started to roll out the new SSN, our spare parts distribution centres for USA & Canada (including packaging parts) and India were put in place which resulted in more than 500 tonnes of CO<sub>2</sub> reduction<sup>5</sup>.

### Reducing business travel related GHG emissions by 50% by 2030<sup>6</sup>

Towards this goal, we reduced GHG emissions from business travel by 65% in 2022, compared to our 2019 baseline. Our global remote support operations launched in September 2022, has helped us avoid close to 100 tonnes of business travel CO<sub>2</sub> emissions by solving customer issues remotely. In 2022, the number of site-based service engineers in the US and Canada, for example, increased by more than 25%, which led to a reduction of GHG emissions by around 158 tonnes CO<sub>2</sub>e<sup>7</sup>.

<sup>1</sup> The LEED Platinum certification is granted by the USGBC (United States Green Building Council), the most recent update of the LEED Sustainable Building Classification system. LEED provides a framework for healthy, efficient, carbon and cost-saving buildings and this is a globally recognised symbol of sustainability achievement. To achieve the LEED Platinum certification our project adhered to prerequisites and credits that address carbon, energy, water, waste, transportation, materials, health, and indoor environmental quality.

<sup>2</sup> Fitwel Certification is a building certification system that provides guidelines on how to design and operate healthier buildings and encourage people to improve their eating methods and health behaviours. We are proud to be the first office in Panama to have this certification.

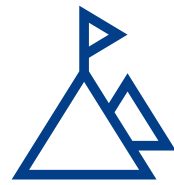
<sup>3</sup> Liquefied petroleum gas (LPG)

<sup>4</sup> Calculated based on emissions from 6 counterbalances run on LPG vs. electric

<sup>5</sup> Calculation is based on actual shipment history and is performed by the carriers. It is based on a 12-month cycle according to the shipment pattern. The reduction in CO<sub>2</sub> emission is due to a reduction in kilometres and the change from air express to road freight since a new network structure has been setup.

<sup>6</sup> 2019 baseline

<sup>7</sup> Calculations based on nine site-based service engineers not travelling, considering 80 flights per year, per person, and an average of 200 kg CO<sub>2</sub> per flight (800 miles)



### Balancing remaining residual operational emissions

Our nature-based<sup>1</sup> land restoration initiative, the Araucaria Conservation Programme in Brazil is set to work on the restoration of approximately 7,000 hectares of land in the Atlantic Forest by 2030, and includes potential certification of up to 13.7 million hectares under international voluntary carbon and biodiversity standards<sup>2</sup> for carbon sequestration measurement<sup>3</sup>. The certification will measure carbon sequestration, meaning the project will support Tetra Pak's commitment to achieving net-zero GHG emissions in its operations by 2030 by compensating remaining CO<sub>2</sub> emissions.

→ See the *Nature* chapter



## Sold equipment

**55% of our 2022 GHG emissions came from the equipment sold to and used by food and beverage manufacturers. We are therefore accelerating the development and deployment of processing and filling solutions with 50% fewer emissions per unit of production<sup>4</sup>, which can reduce the impacts of our customers' production processes.**

### Reducing resources use and GHG emissions through upgrade and recovery solutions

In providing solutions and services that can help reduce energy consumption and emissions, Tetra Pak has facilitated more than 120 energy-saving and emission-reduction improvement projects at customer sites and proposed more than 1,000 equipment upgrade solutions, thus effectively contributing to reducing carbon emissions in our customers' operations since 2016. In 2022, we started a Sustainability Agile Development Programme. Under this programme, we

have explored a way to reduce water and product loss through recovery solutions. We are also exploring a way to reduce GHG emissions on dairy ambient processing lines, as well as looking at integrating full scale decarbonisation in food plants. For this, our team engaged with solar thermal and high pressure and high lift heat pump experts.

Our complete portfolio of Expert Services can help optimise food safety and operational performance. Experts evaluate operational and environmental performance, as well as food safety and quality, and then identify exact challenges, losses and waste to be eliminated, striking a balance between performance, cost and risk. In 2022, in the America's region, our portfolio of Expert Services helped 8 customers reduce CO<sub>2</sub> emissions by 7.62 kilotonnes, which is equivalent to 9% of their total plant emissions<sup>5</sup>.

[READ MORE](#)

<sup>1</sup> Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Source: [https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions\\_en](https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions_en)

<sup>2</sup> Certification of the project will follow international voluntary carbon and biodiversity standards

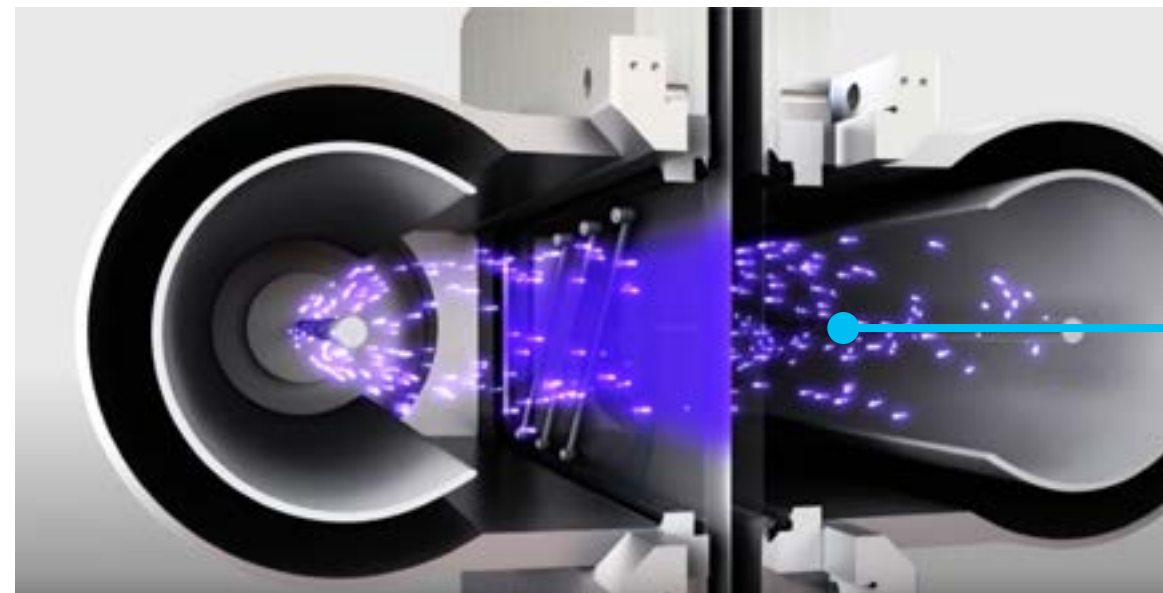
<sup>3</sup> The uptake and storage of carbon. Trees and plants, for example, absorb carbon dioxide, release the oxygen and store the carbon. Source: <https://www.eea.europa.eu/help/glossary/eea-glossary/carbon-sequestration>

<sup>4</sup> Compared to 2019 for best practice lines

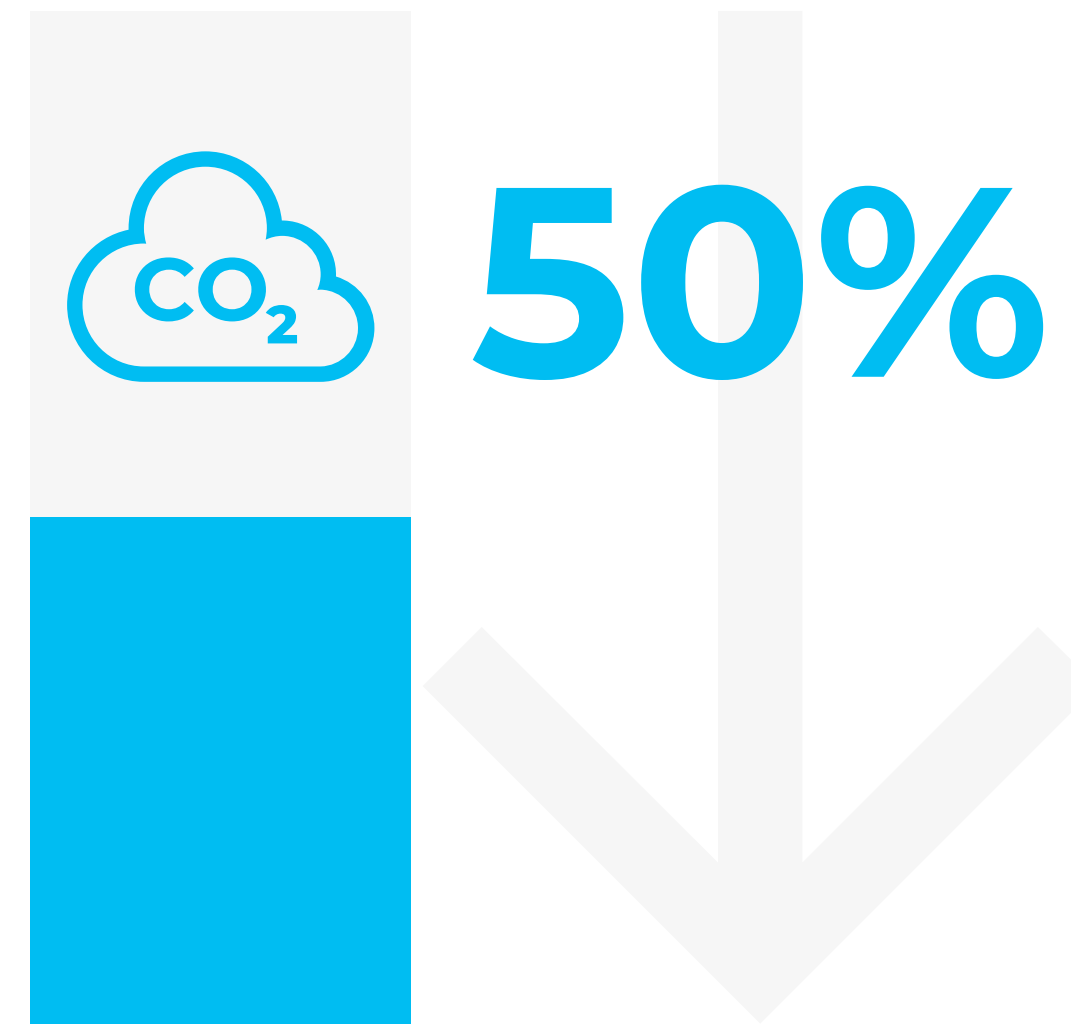
<sup>5</sup> Combined CO<sub>2</sub> emissions of all 8 customers in 2022.

# >> What's next?

We will continue to work towards our ambition to take action on mitigating climate change by decarbonising<sup>1</sup> our operations, products, and our value chain. For this, we plan to act on the following steps moving forward:



Continue the deployment of the eBeam technology and expanding its usage into future generations of filling machines to further reduce energy consumption as well as product and packaging waste.



Keep focus on the development and deployment of food processing equipment and lines to reduce carbon footprint by 50% by 2030<sup>2</sup>

In 2023, we will run an environmental risk and impact analysis on our SSN sites starting with the DC in Lund, Sweden, and will expand the analysis to the rest of the sites during the year. Also in 2023, the DC in China will start delivering parts produced in China directly to the other DCs without sending them via the central hub in Lund, with the potential to save approximately 250 tonnes of CO<sub>2</sub> emissions per year<sup>3</sup>



We sit on the steering committee of Business Sweden's Pioneering the Fossil Free platform, collaborative initiative to increase Sweden's global contribution to the Agenda 2030 and accelerate the innovative solutions needed to achieve the Paris Agreement and will continue to leverage the platform to support food systems sustainability transition.

Drive our base materials suppliers to 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.



<sup>1</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. Scope 1 and 2 GHG emissions combined were reduced by 27% compared to our 2019 baseline. Tetra Pak operations = Scopes 1, 2 and business travel, our value chain = Scopes 1, 2 and 3.

<sup>2</sup> Compared to 2019 for best practice lines

<sup>3</sup> Calculation is based on actual shipment history and is performed by the carriers. It is based on a 12-month cycle according to the shipment pattern. The reduction in CO<sub>2</sub> emission is due to a reduction in kilometres and the change from air express to road freight since a new network structure has been setup.

# Nature

## Acting for nature

Nature underpins societal wellbeing by providing basic life support services and material goods such as soil, air, water, food, fuel, and fibre<sup>1</sup>, so the impacts of nature loss are wide-reaching and threaten the foundations of our global economies, livelihoods, and food systems<sup>2,3</sup>. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), nature is deteriorating at rates unprecedented in human history, largely due to human activity. Around one million species are facing extinction, many within decades<sup>4</sup>. Current extinction rates are already at least tens to hundreds of

times higher than what has been average over the past 10 million years<sup>5</sup>, causing scientists to declare a 'sixth mass extinction' to be underway<sup>6</sup>. Global food systems are the primary driver of this trend<sup>7</sup>. The conversion of natural ecosystems for crop production or pasture account for 90% of tropical deforestation<sup>8</sup> and 70% of water use globally<sup>9</sup>. [The Kunming-Montreal Global Biodiversity Framework \(GBF\)](#) was adopted in December 2022 to halt and reverse biodiversity loss, calling for countries to take urgent action to put nature on a path to recovery by 2050 for the benefit of the planet and its people.

1 IPBES. (2019). Global Assessment Report of the Intergovernmental Science-Policy Platform on Biodiversity. In E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo (Eds.), IPBES secretariat. IPBES secretariat, Bonn, Germany.  
 2 Herweijer, C., et al. "Nature risk rising: Why the crisis engulfing nature matters for business and the economy." World Economic Forum and PwC. [https://www3.weforum.org/docs/WEF\\_New\\_Nature\\_Economy\\_Report\\_2020.pdf](https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf)  
 3 FAO. 2019. The State of the World's Biodiversity for Food and Agriculture, J. Bélanger & D. Pilling (eds.). FAO Commission on Genetic Resources for Food and Agriculture Assessments, Rome. 572 pp.  
 4 IPBES. (2019). Global Assessment Report of the Intergovernmental Science-Policy Platform on Biodiversity. In E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo (Eds.), IPBES secretariat. IPBES secretariat, Bonn, Germany.  
 5 IPBES. (2019). Global Assessment Report of the Intergovernmental Science-Policy Platform on Biodiversity. In E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo (Eds.), IPBES secretariat. IPBES secretariat, Bonn, Germany.  
 6 Ceballos, G., Ehrlich, P. R., Barnosky, A. D., Garcia, A., Pringle, R. M., & Palmer, T. M. (2015). Accelerated modern human-induced species losses: Entering the sixth mass extinction. *Science Advances*, 1(5), 9-13.  
 7 Benton, T.C., et al. (2021). Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature. Chatham House. Source: [https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al\\_0.pdf](https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al_0.pdf)  
 8 Pendrill, Florence, et al. "Disentangling the numbers behind agriculture-driven tropical deforestation." *Science* 377:6611 (2022): eabm9267.  
 9 The State of the World's Land and Water Resources for Food and Agriculture - Systems at Breaking Point. Synthesis Report 2021. Rome (2021), 10.4060/cb7654en  
 10 Benton, T.C., et al. (2021). Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature. Chatham House. Source: [https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al\\_0.pdf](https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al_0.pdf)  
 11 "The private sector can play a critical role in building system resilience, as businesses can drive resilience at the local level (on-site resilience), through their supply chains (supply chain resilience) and beyond their operation (system resilience)". Source: Water Resilience Assessment Framework Corporate Guidance. [https://www.globalcompact.de/fileadmin/user\\_upload/Water\\_Resilience\\_Assessment\\_Framework.pdf](https://www.globalcompact.de/fileadmin/user_upload/Water_Resilience_Assessment_Framework.pdf)

### Why it matters

Human activity is causing unprecedented rates of deterioration of nature, leading to the possible extinction of a million species within decades. Global food systems are the primary cause of biodiversity loss<sup>10</sup>, as they drive deforestation and water use, and are also impacted by it.

### SDGs



### Ambition

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<sup>11</sup>.

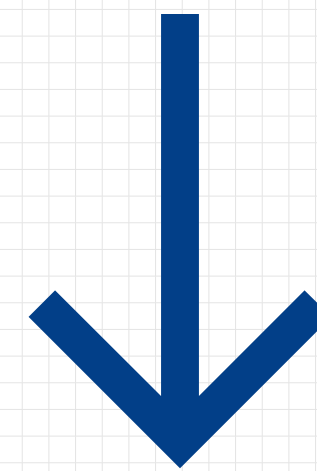
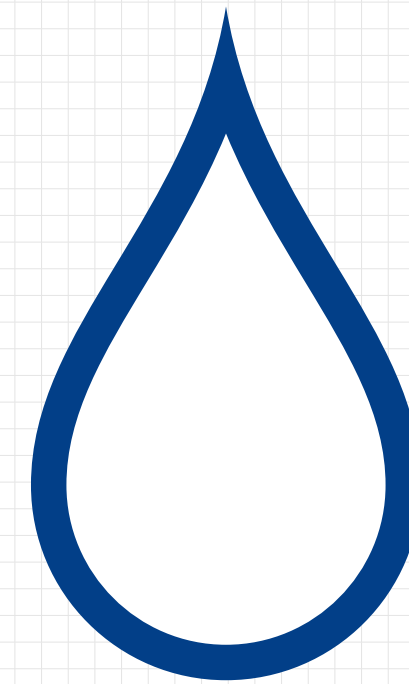
### Targets

- ⊕ Manage the impact of our value chain on nature through the implementation of a nature strategy
- ⊕ Maintain our CDP Forests and Climate Change A-List leadership ranking
- ⊕ Reduce the water consumption of the best practice processing lines by 50% by 2030 compared to 2019 supported by setting 9 water reduction targets for Tetra Pak facilities

# 2022 highlights



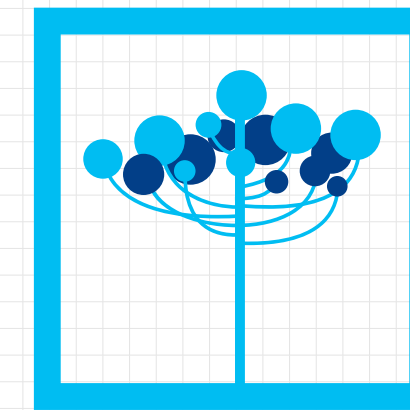
Achieved an 'A' for forests by the CDP for the seventh time in a row →



**95%**  
**consumption reduction**  
in filling lines with Tetra Pak® Water Filtering Station (WFS) in comparison to those without WFS →

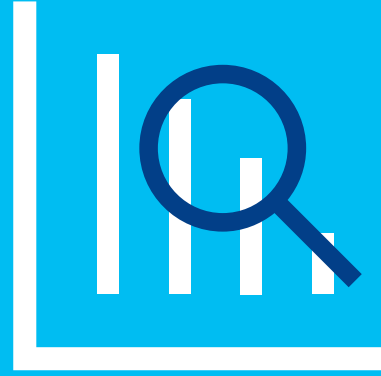
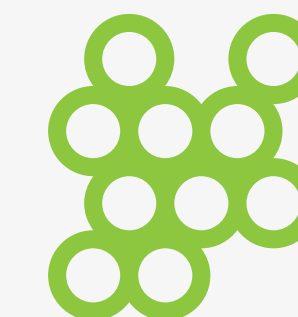
## RESTORED

**87**  
hectares  
of land



equivalent to **136** football fields through our Araucaria Conservation Programme in Brazil →

**Completed a water value-chain analysis to understand water footprint and water-related risks →**

Published the first Procedure for Responsible Sourcing of Renewable Polymers →

## Tetra Pak's role

As one of the businesses that signed the Business for Nature coalition COP-15 business statement calling for governments to adopt the Target 15 of the GBF<sup>1</sup> to halt and reverse biodiversity loss, we believe that we have a role to play in helping to protect nature. Target 15 requires all large businesses and financial institutions to assess and disclose their risks, dependencies, and impacts on biodiversity, provide information to consumers to promote sustainable consumption and report on compliance with access and benefit-sharing mechanisms, "to progressively reduce negative impacts on biodiversity and increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production"<sup>2</sup>.

### Collaborative approach

Recognising the interconnectedness of this challenge alongside nature and water, we are collaborating with our suppliers and customers to manage and mitigate our impacts on biodiversity and nature, by (1) ensuring responsible sourcing practices, (2) contributing to global water resilience<sup>3</sup> in our own operations and supply chain, and (3) conserving and restoring ecosystems. We know that our packaging products rely heavily on the use of natural resources to be produced. The majority of the land used by our value chain comprises of forests to supply our paperboard; the remainder consists mainly of an agricultural footprint of starch crops for paperboard, sugar cane for our plant-based plastics and mining areas for aluminium foil and stainless steel.



The Araucaria Conservation Programme in Brazil

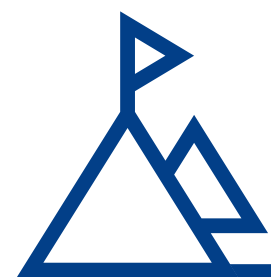
By responsibly sourcing these materials, we can better manage the use of natural resources in a way that ensures their continued availability and minimises the harm caused by the extraction, processing, and use of these resources to the environment, communities, and workers across our value chain. Innovating across our products, filling equipment, processing lines, and services also allow us, and our customers, to reduce water-related impacts. Lastly, we are taking a cooperative approach to reverse biodiversity loss by developing and collaborating on initiatives to restore nature. Overall, we can contribute to the GBF's vision that by 2050, biodiversity is valued, conserved, restored, and wisely used, maintaining ecosystem services, sustaining a healthy planet, and delivering benefits essential for all people<sup>4</sup>.

<sup>1</sup> Source: <https://www.cbd.int/gbf/>

<sup>2</sup> Source: <https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022>

<sup>3</sup> "The private sector can play a critical role in building system resilience, as businesses can drive resilience at the local level (on-site resilience), through their supply chains (supply chain resilience) and beyond their operation (system resilience)". Source: Water Resilience Assessment Framework Corporate Guidance [https://www.globalcompact.de/fileadmin/user\\_upload/Water\\_Resilience\\_Assessment\\_Framework.pdf](https://www.globalcompact.de/fileadmin/user_upload/Water_Resilience_Assessment_Framework.pdf)

<sup>4</sup> Source: <https://www.cbd.int/article/cop15-final-text-kunming-montreal-gbf-221222>



# Our progress in 2022

## Nature impact assessment and strategy

Early in 2022, we joined the Corporate Engagement Program of the Science Based Targets Network (SBTN)<sup>1</sup> to support the development of science-based targets for nature through methods, tools, and guidance to help companies transform their businesses.

We conducted an assessment of our value chain dependencies and impacts on nature. It found that the sourcing of our raw materials, including paperboard and plant-based plastics, has the highest impact on nature, compared to our operations and end use of packaging, which have a lower impact. The assessment provided a clear understanding of the drivers of biodiversity loss in our value chain, helped to prioritise



*The development of the Tetra Pak Nature Strategy was a significant milestone in our work related to nature. It helps us clearly articulate our ambition related to nature through concrete targets and actions. It will also be instrumental for us to monitor and report on our progress in addressing the impacts of our value chain on nature.*

**Anni Vuohelainen,**  
Nature Project Manager, Tetra Pak

strategic areas for action, and served as the basis for the development of a nature strategy. This strategy includes targets and key actions in four areas:

- 1) our upstream supply base;
- 2) our operations;
- 3) downstream customers and product end-of-life; and
- 4) transformative actions that reach beyond our value chain.

### Upstream

includes all the activities that relate to goods and services that Tetra Pak purchases.

### Operations

includes all the activities and sites that are under Tetra Pak's operational control.



**Nature's  
impact on the  
value chain**

### Downstream

focuses on the activities that are related to the sale, use and end of life of Tetra Pak products and services.

### Transform

focuses on action that goes beyond the immediate Tetra Pak value chain.

<sup>1</sup> <https://sciencebasedtargetsnetwork.org/wp-content/uploads/2020/11/Science-Based-Targets-for-Nature-Initial-Guidance-for-Business.pdf>



## Sustainable sourcing

We are collaborating with our supply chain counterparts to increase the traceability and transparency of our sourcing, building on our certified chains of custody and our membership of voluntary sustainability standards.

We are participating in an EU Horizon 2020-funded project 'Landgriffon' which uses satellite data and image-processing algorithms to support sustainable sourcing decision-making.

Responsible sourcing is one of the key areas where we work to address the impacts of our value chain on nature. We are developing and updating mandatory procurement requirements, such as the [procedure for responsible sourcing of Liquid Packaging Board](#) and the procedure for [responsible sourcing of Renewable Polymers](#).

For the seventh year, we achieved an 'A' from CDP Forests Disclosure, which assessed our progress in measuring and managing forest-related risks and opportunities. In 2022, 865 companies were scored, and we are proud to be one of the 25 who made the 2022 Forests A List.

We strive to lead the way in corporate transparency and performance on forests and joined the [CDP nature-positive challenge](#). Additionally, our team has been participating in a series of workshops as part of the 'Technical Working Group on Landscapes and Jurisdictional Approaches'.

[READ MORE](#)

### Paperboard

On average, the paperboard content of our beverage cartons is more than 70%.



Klabin, Brazil

can be for further verification of our sourcing requirements. We maintained traceability of all the wood fibre contained in our packages at a minimum to the level of processing facilities that produce the paperboard, making use of an information system that allows us to track the flow of paperboard from

paper mills to our converting factories. All of our suppliers, and our own facilities, are certified with FSC™ Chain of Custody certification to guarantee that the paperboard in our packages comes from FSC™ certified forests or other controlled sources<sup>4</sup>. We also require our suppliers to report annually on the paper mills, tree species, certification status, and the country and area of origin of the wood fibre used in the paperboard supplied to us.



<sup>1</sup> Tetra Pak ensures that wood fibre in the paperboard shall not originate from areas where there has been deforestation after 31 December 2020. 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: <https://www.tetrapak.com/content/dam/tetrapak/publicweb/gb/en/sustainability/Tetra-Pak-Procedure-Responsible-Sourcing-Liquid-Packaging-Board-2023.pdf>

<sup>2</sup> The FSC license code for Tetra Pak is FSC™ C014047

<sup>3</sup> The remaining 1% was sourced from Russia during the time when FSC certificates were suspended due to the Russian invasion of Ukraine. Tetra Pak ended all of its operations in Russia on July 26th, 2022, and no longer sources any paperboard or wood fibre from Russia

<sup>4</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/fsc-mix-label-and-controlled-wood>



Aluminium



We have been an active member of FSC™ International since 2008. Via the FSC™ platform, we advocate for multi-stakeholder solutions involving other users and producers to secure the long-term sustainable supply of forest commodities. In the 2022 General Assembly week we participated in three standards consultation processes as well as taking part in a range of membership meetings, using our voting power and membership voice to drive change and simplification. As members of FSC we support the FSC 2026 strategy to increase certified forests from 220 million hectares to 300 million hectares<sup>1</sup>.

We have also engaged in an initiative to fast-track Biodiversity Assessments of FSC™-certified forests, launched at COP-15 in Montreal. The project aims to evaluate the biodiversity value associated with FSC forest management certification and strengthen the monitoring of forest biodiversity to further support the assessment of FSC's contribution to biodiversity conservation.

### Aluminium

In 2022, 99.6% 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.

### Plant-based plastics

100% of the plant-based plastics used in our products is made from sustainably sourced sugarcane certified by [Bonsucro](#). Bonsucro certification promotes sustainable production, processing and trade of sugarcane around the world and enables our customers to make stronger and more comprehensive sustainability claims about our products that contain plant-based polymers. In 2019, we were the first

company in the food packaging and processing industry to source plant-based plastic responsibly using the Bonsucro Chain of Custody Standard. We further strengthened our approach in 2022 by publishing our first [Procedure for responsible sourcing of renewable polymers](#). Additionally, we are represented on the

Sugar cane



Bonsucro Members' Council and gave input on behalf of the End User membership class to the revised [Bonsucro Production Standard v5.1](#) to ensure that biodiversity and ecosystem services are mapped, risk-assessed and managed in sugarcane production areas.

→ See [Collaborating with suppliers](#) spotlight story

<sup>1</sup> Source: <https://fsc.org/sites/default/files/2020-12/FSC%20GLOBAL%20STRATEGY%202021-2026%20%28English%20version%29%20%282%29.pdf>



## Water management

We are contributing to a water-secure<sup>1</sup> world by leveraging expertise, technology, and partnerships towards building secure, resilient, and sustainable food systems<sup>2</sup> to reduce water-related impacts of our packaging and processing solutions. We work to reduce impacts on local water resources, contributing to solving shared water challenges in basins at risk<sup>3</sup> across our entire value chain.

### Analysing our water-related risks across the value chain

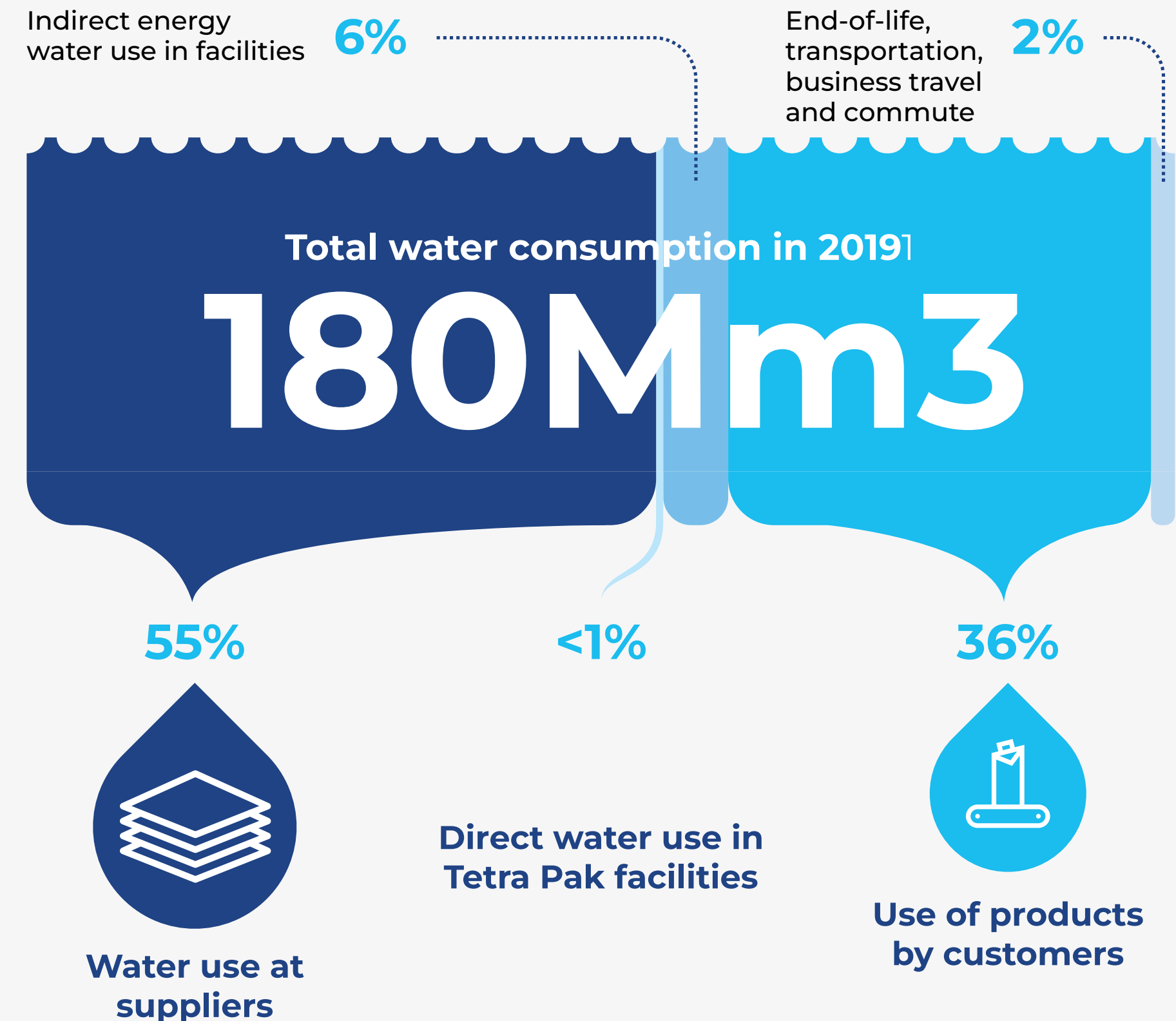
Across 2022, we ran a Water Value Chain Assessment to better understand our water-related risks and impacts along the entirety of the value chain. We interact with water in three main areas: usage upstream, connected with the production of packaging raw materials; usage at our

operations; and usage linked to processing and packaging food at our customers' sites<sup>4</sup>. The analysis showed that 55% of our corporate water footprint comes from upstream purchases, such as paperboard, fossil-based polymers, and aluminium, followed by 36% related to direct and indirect water use by customers using Tetra Pak equipment. Our direct water consumption from manufacturing sites represents no more than 1% of the corporate footprint. The analysis also quantified the risk in our manufacturing sites for water availability and quality as well as water sanitation and hygiene. As a result, we have set 9 water targets across our value chain covering direct use of water in Tetra Pak facilities, use of products by customers, and water use by suppliers.

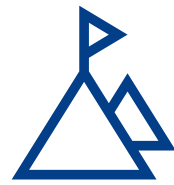
<sup>1</sup> UN Water defines water security as "the capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability". Source: <https://www.unwater.org/publications/water-security-and-global-water-agenda>  
<sup>2</sup> The Food and Agriculture Organization of the United Nations defines food systems as "the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded". Source: <https://www.fao.org/3/ca2079en/CA2079EN.pdf>

<sup>3</sup> Basins at risk are identified following the SBTN methodology, based on eight different indicators across water quantity, quality and wash. For each indicator, a score between 1 and 5 is attributed. Within these three categories, one indicator with a score of 3 or above indicates that the basin is at risk. Source: <https://sciencebasedtargetsnetwork.org/resources/>  
<sup>4</sup> For Tetra Pak sites, water is supplied either by third party (municipal supply), by own ground wells, or from surface water. Besides water use at all our sites for sanitary purposes, water is also used for industrial operations. Common uses include cooling systems, washing activities, equipment testing activities, and gardening. Water discharge is done either to external wastewater treatment (municipal or third-party wastewater facilities), or to surface water after on-site wastewater treatment.

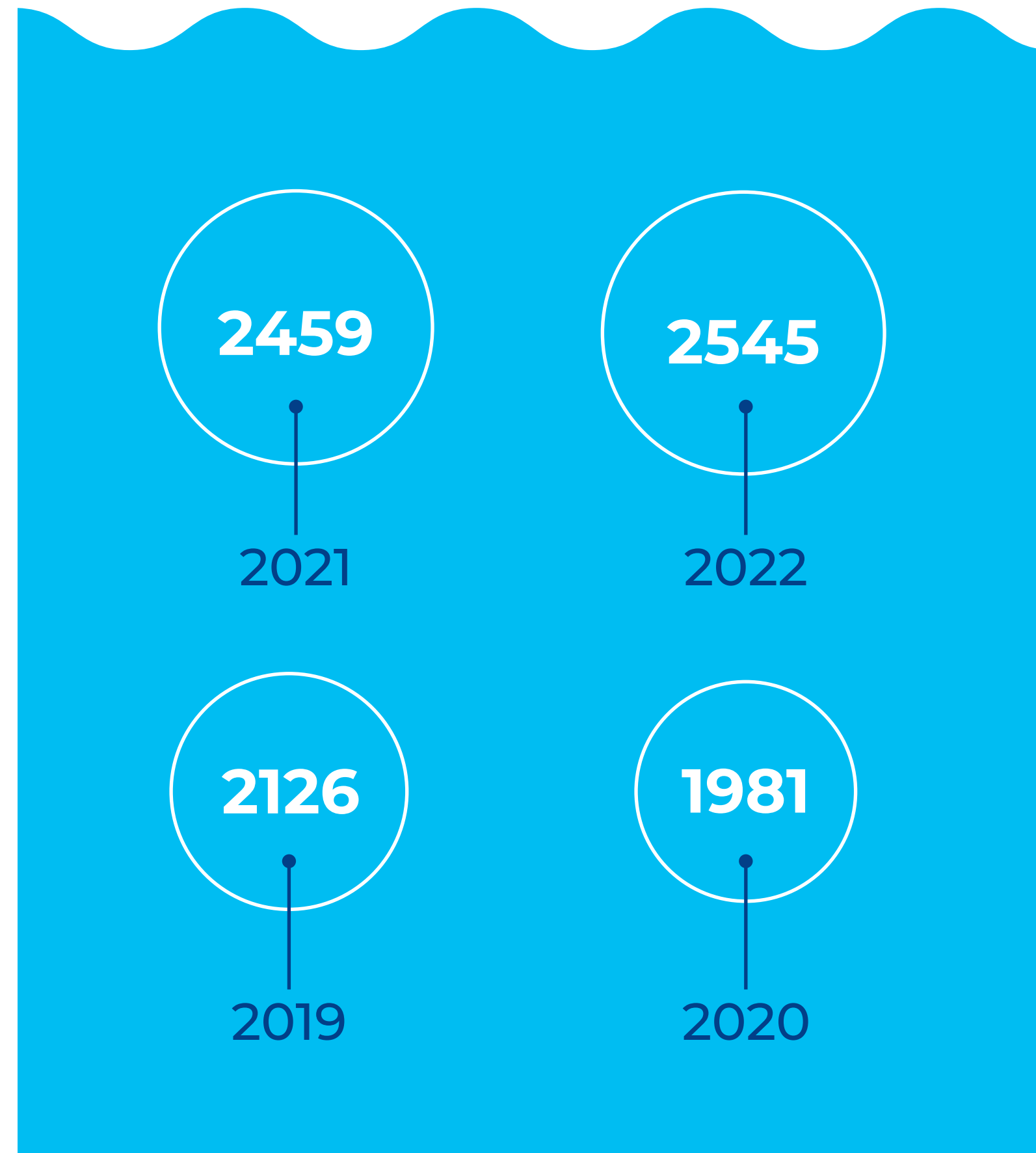
## Corporate water consumption



[READ MORE](#)  
View full infographic



### Total water withdrawal (megaliters)



#### Reducing direct use of water in Tetra Pak facilities

We introduced an internal Water Management Procedure providing guidance and mandatory requirements for all our manufacturing sites with its aim being to engage sites to operate in line with water stewardship standards, including monitoring of water discharge quality and water withdrawal quantities<sup>1</sup>. Further to this, Tetra Pak sites address water-related impacts both locally, through identification of water improvement opportunities, as well as from a centrally managed approach via our Facilities & Real Estate Management (FREM) organisation.

Kunshan, China



The increase in water withdrawal between 2022 and 2021 is attributed to our 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, our net water consumption<sup>2</sup> is not significantly affected, as it decreased to 1066ML compared to 1405ML in 2021.

[READ MORE](#)

Part of this decrease can be attributed to our Kunshan site in China which achieved a 10% water reduction and over 2.8 million litres of water savings in 2022 by mapping the possibility of water recycling within municipal water consumption and finding a solution to reuse the waste-treated water in the cooling tower.

<sup>1</sup> Each Tetra Pak site is locally responsible for ensuring that it meets all local water related regulatory requirements.  
<sup>2</sup> Water consumption is the portion of water use that is not returned to the original water source after being withdrawn. Consumption occurs when water is lost into the atmosphere through evaporation or incorporated into a product or plant (such as a corn stalk) and is no longer available for reuse. Source: <https://www.wri.org/insights/whats-difference-between-water-use-and-water-consumption>



Mammen Dairies, Denmark

### Saving wastewater and reducing product losses with membrane filtration solutions

In an effort to help our customers reduce water use in their operations, in 2022, we worked with two dairy customers on their membrane filtration system to drive efficiency. The first customer, a [dairy](#) that produces ingredients, has operated a membrane filtration system to reduce milk product losses by 308,000 litres annually, recover 7,800 litres of water daily, and ultimately reduce wastewater volume requiring treatment by 730,000 litres annually. The dairy collects white water from different processes daily. Using membrane filtration, it can now concentrate the white water to reduce milk product losses and recover water, which can be used for cleaning processes, reducing the need for fresh water. Similarly, we helped a [dairy-producing ingredients](#) customer to optimise its membrane filtration system to support the reduction of wastewater discharged, chemicals used, and energy consumed, as well as provide the capacity and capability to purify spent caustic from evaporators for reuse over several years.

### Reducing 95% water by using water filtration

Our solutions are allowing further water consumption reduction for our customers when packaging their products. One example is our Tetra Pak® Water Filtering Station (WFS) in filling lines with a 95% water consumption reduction in comparison to those without WFS. This is achieved by the WFS lines removing lubrication, residues from packaging material, hydrogen peroxide and alkaline pH, and then circulating clean water free from all contaminants back into the system. Improving water quality can also increase the lifespan of the components in the filling machines because filtered water is free from H<sub>2</sub>O particles, oil, grease, and other contaminants that damage and corrode parts.

[READ MORE](#)



## COP15



Governments around the world gathered in December 2022 for the 15th Conference of Parties (COP15), a biodiversity conference held under the UN Convention on Biological Diversity (CBD). A key outcome was the adoption of the [GBF](#) which contains four overarching long-term goals for 2050 and 23 targets for urgent action over the decade to 2030.

The framework has the vision that by 2050, biodiversity is valued, conserved, restored, and wisely used, maintaining ecosystem services, sustaining a healthy planet, and delivering benefits essential for all people. The targets of the convention are grouped under three areas:

- Reducing threats to biodiversity
- Meeting people's needs through sustainable use and benefit-sharing
- Tools and solutions for implementation and mainstreaming



The Araucaria Conservation Programme in Brazil

## Ecosystem restoration

**We are engaging in on-the-ground action by developing and supporting collaborations to restore nature, focusing on a nature-based<sup>1</sup> land restoration project in Brazil. Our Araucaria Conservation Programme was developed in collaboration with Apremavi, a Brazilian NGO specialising in conservation and restoration projects since 1987. The initiative is set to restore up to 7,000 hectares – equivalent to 9,800 football pitches – of degraded land over ten years in the Forest of Araucarias in the Atlantic Forest, one of the richest biomes and the second most endangered in the world. The project involves a collaboration of stakeholders to advance shared social, economic, and environmental objectives across multiple economic sectors and land uses.**

In 2022, a pilot site of 87 hectares of land in the municipality of Urubici, Santa Catarina state was restored<sup>2</sup>. This is equivalent to 136 football fields, surpassing the initial goal of 80 hectares. This comes at a time when around 3.75 million hectares of tropical

primary rainforests were lost in 2021, 1.5 million hectares of which occurred in Brazil<sup>3</sup>. Of the 87 hectares, 47 hectares of seedlings were planted, and another 40 hectares are being actively monitored for natural regeneration. Both restoration areas have been protected with a fence to stop livestock from pasturing on the new seedlings and regenerated vegetation.

Land restoration also plays a vital role in combating climate change as trees absorb and store carbon dioxide as they grow. With forests currently responsible for absorbing 30% of all carbon emissions in the world<sup>4</sup>, restoration projects like the one in the Atlantic Forest can help reduce the levels of carbon dioxide in our atmosphere and help reverse climate change as identified by the IPCC in their latest [2023 AR6 summary report](#). The aim is to include certification of up to 13.7 million hectares under international voluntary carbon and biodiversity standards for carbon sequestration measurement<sup>5</sup>.

[READ MORE](#)

<sup>1</sup> Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Source: [https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions\\_en](https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions_en)

<sup>2</sup> Verification of restoration status will be undertaken by Apremavi, our restoration partner.

<sup>3</sup> World Resources Institute: Global Forest review. (2022). Source: <https://research.wri.org/gfr/latest-analysis-deforestation-trends>

<sup>4</sup> United Nations Climate Action. Source: <https://www.un.org/en/climatechange/science/climate-issues/land>

<sup>5</sup> The uptake and storage of carbon. Trees and plants, for example, absorb carbon dioxide, release the oxygen and store the carbon. Source: <https://www.eea.europa.eu/help/glossary/eea-glossary/carbon-sequestration>

# >> What's next?

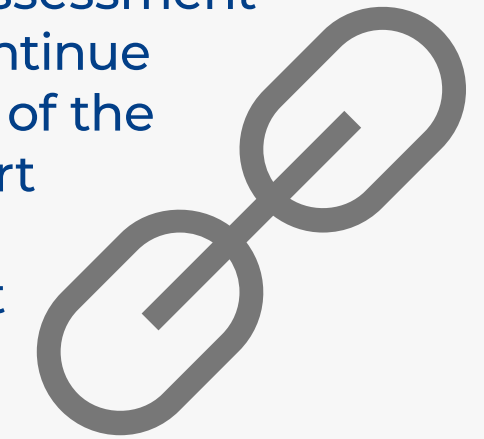
We will continue to work towards our ambition to help protect nature through responsible sourcing practices and strategic collaborations to conserve and restore biodiversity, mitigate, and adapt to climate change, and contribute to global water resilience. For this, we plan to act on the following steps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

In 2023, joined the World Business Council for Sustainable Development (WBCSD) to collaborate with other companies in the Nature and nature-based<sup>1</sup> solutions project.



**In 2023, make our first CDP Water disclosure and accelerate our activities to reach our target of 50% water withdrawal in our sites by 2030 vs. 2022**

In 2023, disclose the results of our nature impact assessment and strategy, continue implementation of the strategy and start monitoring our progress against its targets.



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.

Continue to progress with The Araucaria Conservation Programme in Brazil. In the first half of 2023, three new areas are being mapped in the state of Santa Catarina for restoration. Other action fronts include mapping of new areas for restoration, certification of the areas for carbon sequestration, and the structuring of a Payment for Ecosystem Services system.



Revise our timber legality due diligence system to comply with the EU regulation on deforestation-free supply chains.

<sup>1</sup> Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Source: [https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions\\_en](https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions_en)

# Social sustainability

## Respecting human rights across our value chain

Global value chains depend on people, and people depend on global value chains for their income, livelihoods, and wellbeing. Businesses may exacerbate the vulnerability of these people through their operations and value chain or enhance their resilience and create better outcomes by proactively respecting human rights.

Today, the rights of workers, communities and other people affected by business activity are at risk, with increasing rates of forced labour, child labour and extreme poverty amongst other challenges<sup>1</sup>. The abuse of workers' rights was severe in 2022<sup>2</sup>, with only 3 out of 148 countries showing improvements in this area<sup>3</sup>. Meanwhile, the UN estimates that 7,500 people on average die every day from unsafe and unhealthy working conditions<sup>4</sup>. The climate crisis, and the necessary transition to a net-zero economy, exacerbate the risks to people across the value

chain, whether in the form of lost livelihoods from extreme weather events and rising temperatures, or loss of employment from a rapid shift away from carbon-intensive practices.

In recent years, social sustainability has gained increasing attention from businesses, consumers, regulators, and civil society. One of the most prominent trends is the emphasis on promoting diversity, equity, and inclusion (DEI) in the workplace. While progress has been made in increasing the proportion of women in leadership roles, with the share reaching 36.9% in 2022 across 155 countries and 19 industries, equal representation has not been achieved across all industries<sup>5</sup>. In addition to promoting DEI, companies and its employees, benefit from protecting and promoting mental health at work, as depression and anxiety result in approximately 12 billion lost working days each year<sup>6</sup>.



### Why it matters

People's income, livelihoods, and wellbeing are impacted by global value chains. While businesses can worsen people's vulnerability, respecting human rights can increase their resilience. However, the increasing incidence of forced labour, extreme poverty, and unsafe working conditions threaten the rights of workers and communities.

### SDGs



### Ambition

To respect human rights across our operations and value chain, creating positive social impact<sup>7</sup>.

### Targets

- 🕒 Create action plans to address salient human rights risks across our value chain, along with targets and KPIs
- 🕒 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
- 🕒 Continue to invest in training on inclusive leadership for managers and mentoring programmes driving gender equity and inclusiveness
- 🕒 Sustain investment in Future Talent Programmes and enable world-class training and development for all our employees

<sup>1</sup> International Labour Organisation: 50 million people worldwide in modern slavery. (2022). Source: [https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS\\_855019/lang-en/index.html](https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_855019/lang-en/index.html)

<sup>2</sup> Global Rights Index 2022 Violations. (2022). Source: <https://www.weforum.org/agenda/2022/09/global-rights-index-2022-violations/>

<sup>3</sup> Global Rights Index 2022 Violations. (2022). Source: <https://www.weforum.org/agenda/2022/09/global-rights-index-2022-violations/>

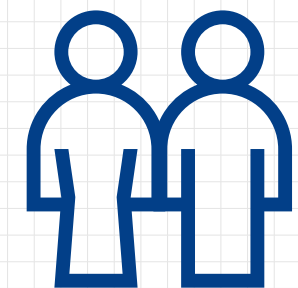
<sup>4</sup> UN Global Compact: Labour and Decent Work. Source: <https://www.unglobalcompact.org/what-is-gc/our-work/social/labour>

<sup>5</sup> Leadership roles included in the sample are Director, VP, CXO, Partner. The sample includes data from 155 countries. Global Gender Gap Report. (2022). Source: [https://www3.weforum.org/docs/WEF\\_GGGR\\_2022.pdf](https://www3.weforum.org/docs/WEF_GGGR_2022.pdf)

<sup>6</sup> Source: <https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work>

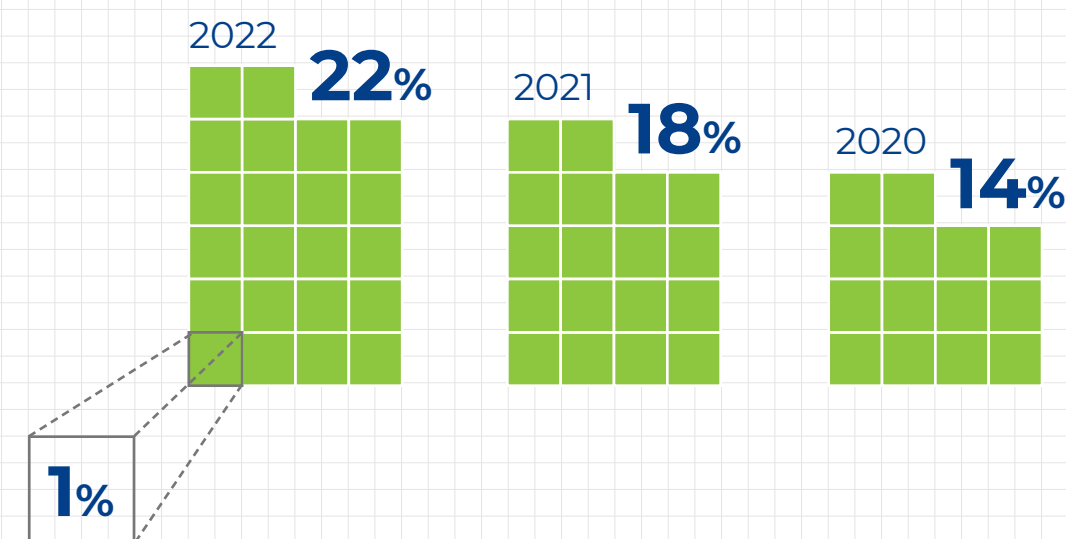
<sup>7</sup> By positive impact we mean driving better outcomes for our workforce, workers and communities in our supply chain, workers in collection and recycling and people in our value chain in the areas of labour, discrimination, hazardous working conditions and sustainable income, among others

# 2022 highlights



Established a dedicated social sustainability function to further develop and strengthen our corporate strategy and approach to social sustainability →

## Share of women in senior positions is increasing



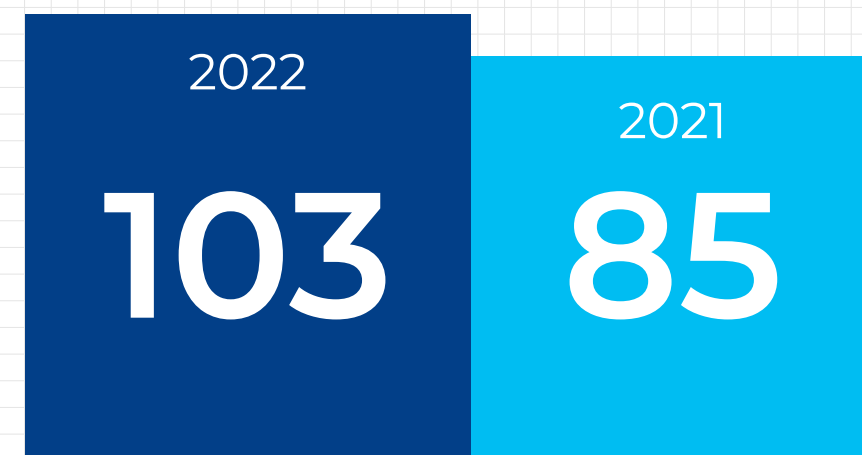
## Women in our workforce



**56%**  
of participants in mentoring programmes

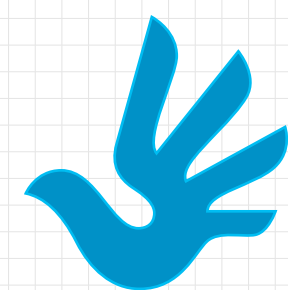
**38%**  
of participants in our Leadership Accelerated Programme (LAP)

**31%**  
employees in our succession bench →



New graduates hired in our Future Talent Programme

As we invest in the new generation of leaders, we hired 103 new graduates in 2022 compared to 85 in 2021 as part of the Future Talent Programme →



Commissioned an expert organisation to develop a roadmap for implementation of the UN Guiding Principles on Business and Human Rights →

Initiated a process to assess and prioritise risks to people across our value chain →



Offered humanitarian assistance in response to crises in Ukraine, Pakistan, Syria and Türkiye →





## Tetra Pak's role

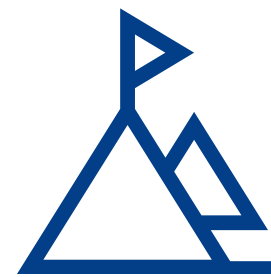
Tetra Pak's promise to protect food, people and the planet is ever more relevant. Social sustainability means putting people first and implementing business practices that contribute to the human dimensions of sustainable development. Operating in the food and beverage packaging and processing industry, we recognise the importance of promoting social sustainability throughout our value chain and focus on our own workforce, workers and communities in our supply chain, and workers in collection and recycling of packaging.

We are committed to respecting human rights across our operations and value chain, in line with the UN Guiding Principles

on Business and Human Rights<sup>1</sup>, and creating positive social impact. By positive impact we mean driving better outcomes for our workforce, workers and communities in our supply chain, workers in collection and recycling and people in our value chain in the areas of labour, discrimination, hazardous working conditions and sustainable income, among others. We aim to strengthen our human rights due diligence processes, continually assess and take action to prevent human rights issues across our value chain, and enable remedy when harm does occur. Through this process, we aim to empower and listen to affected stakeholders, with their views informing business decisions around social sustainability.

<sup>1</sup> The UN Guiding Principles on Business and Human Rights (UNGPs) are the global standard for business conduct concerning human rights. They're composed of 3 pillars: First, the state has a duty to protect people against human rights harm by business. It requires states to use all the tools at their disposal—law, policy, regulation, and adjudication—to protect against human rights harm by business. Second, businesses have a responsibility to respect human rights. That is, businesses should not infringe on human rights in their own operations, or in their business relationships (e.g. with

partners, suppliers, and customers). That responsibility of businesses is much harder to realise when the state does not do its job, but the responsibility remains, nonetheless. Third, there is a need for greater access to remedy. This requires states & businesses to play roles in providing access to effective remedy—both judicial and non-judicial—for those harmed by business-related human rights abuse.



# Our progress in 2022

## Our workforce

### Supporting a culture based on health, safety, and wellbeing

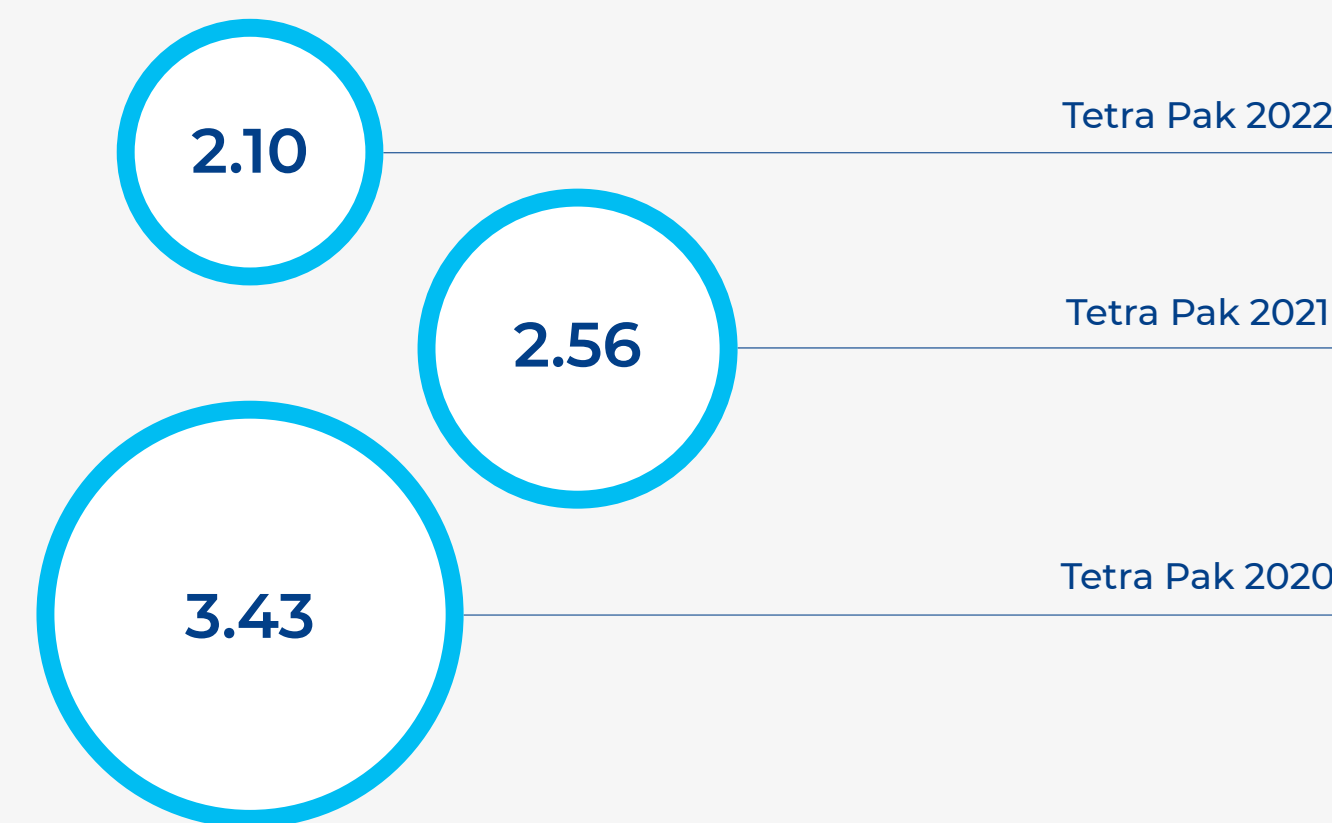
**Our occupational health and safety (OHS) initiatives ensure safe working conditions everywhere for our employees.**

**Additionally, we have established a mental wellbeing programme, which provides employees with the relevant tools, training, and support services to raise awareness, de-stigmatise mental health issues in the workplace, and support employees' mental health whenever and wherever needed.**

In 2022, we had zero fatalities and only one high-consequence incident, across our sites globally. We ensure that all high

consequence incidents have subsequent detailed action plans to drive improvements to prevent reoccurrence. In 2022 we also achieved a 19% reduction in our Total Recordable Accident Rate compared to 2021<sup>1</sup> continuing the trend from 2020. Our continued efforts on OHS over the past few years have been contributing to this positive development. As an example, we have continued the implementation of the global software platform My OHS, to deliver OHS support to our employees and agency workers, and we launched a virtual course to further raise OHS competency in key positions.

#### Accident rates across sites continue to decrease



*Total Recordable Accident Rate (TRAR) - 12-month average (MA)*

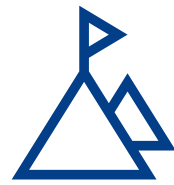
Many of our sites also focus on employee health and wellbeing more broadly, from offering regular hearing and eyesight tests, routine vaccinations, and ergonomic risk assessments, to stress management programmes, complementary therapies, advice on nutrition and healthy living, and alcohol and drug support.

As part of our aim to improve global employee mental wellbeing, we have launched a campaign helping employees recognise symptoms of poor mental wellbeing in themselves or their colleagues and tools to help them make changes to improve the situation. The campaign worked alongside the global Employee Assistance Programme, which is open to all employees and their families should they need emotional support or counselling.

In 2022, over 3,000 employees accessed and engaged with our Mental Wellbeing portal with an additional 3,200 completing our training programme, including the resilience training we launched the same year. Based on our employee engagement survey we now start seeing a positive trend in number of employees who say they feel comfortable in talking about their mental wellbeing at Tetra Pak.

[READ MORE](#)

<sup>1</sup> Data includes both employees and workers who are not employees when at a workplace under control of Tetra Pak



## Promoting diversity, equity, and inclusion (DEI)

We strive for a truly diverse workforce, and a culture of inclusion, where every employee is valued, included, engaged, offered fair opportunities, and treated equally irrespective of their backgrounds. This includes, but is not limited to gender, age, race, ethnic origin, sexual orientation, and disability.

### Building gender equality

We continue to see progress in the representation of women among Tetra Pak

employees: the number of women in senior positions increased to 22% in 2022, compared to 18% in 2021, and 14% in 2020. Women now represent 56% of participants in mentoring programmes, 38% of participants in our Leadership Accelerated Programme (LAP), and 31% of employees in our succession bench.

In 2022, we enhanced our focus on increasing the share of female workers in our factories. To increase the rate of women being hired in factories, we identified a list of enablers, such as adapting working patterns (e.g., facility requirements, shift patterns), onboarding for newly hired women, and training for people leaders

who will lead women for the first time. Implementing these enablers has resulted in local improvements, one example being our factory in Chakan, India, where the number of female engineers increased from zero to five in 2022, when focusing on attracting women to our Future Talent Programme.

→ See *Responsible business practices* chapter



*It's great to be a part of a change where we're breaking stereotypes and Tetra Pak is surely playing a major role in doing so by providing diversity, equity, inclusion and giving female engineers a chance to showcase their knowledge and talent.*

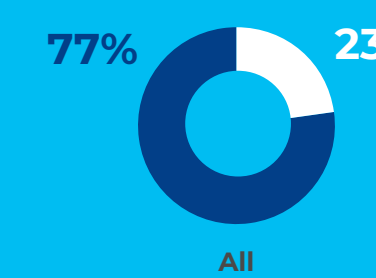
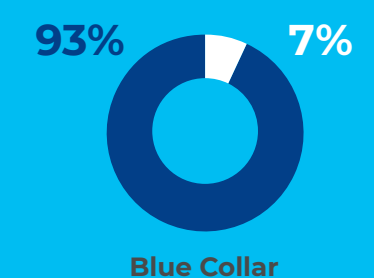
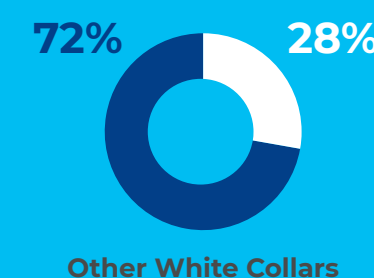
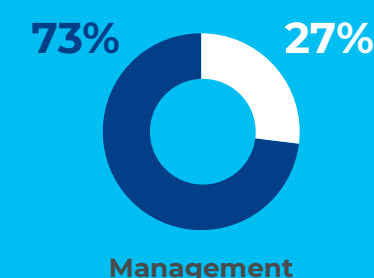
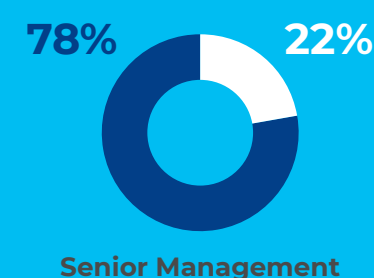
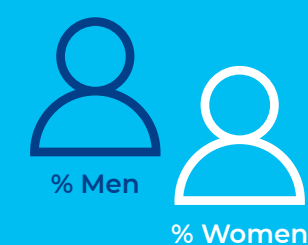
**Vandita Patil,**  
WCM Engineer  
*One of five women hired to our Chakan factory in 2022 as part of the Future Talent Programme*



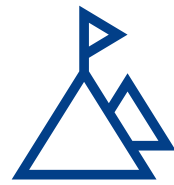
*I have seen the opinion and work of each person being equally valued. Here, knowledge is welcomed, independently of whom it comes from.*

**Nikita Sutar,**  
Quality Engineer  
*One of five women hired to our Chakan factory in 2022 as part of the Future Talent Programme*

### % of employees by gender by category



Percentages rounded to the nearest whole number



### Developing diverse talents and fostering inclusion

As part of our wider DEI strategy, in 2022 we have trained an additional 150 leaders through our Inclusive Leadership training which aims to create awareness of individual biases and to foster an inclusive environment. Since the launch in 2019, over 60% (1,800) of people leaders have gone through the programme. Additionally, we further expanded participation in the Gender Equity cross-company mentoring programme to 50 mentoring pairs in 2021, compared to 17 pairs in 2020. The programme is delivered by Moving Ahead and matches Tetra Pak women to more senior mentors from other companies. We also re-launched the Tetra Pak global mentoring programme, growing from 20 mentoring pairs in the last edition to 78 today. This is a 10-month programme to strengthen the leadership capability of emerging leaders, preparing them for future roles, and increasing their exposure to different functions, units and cultures.

### Deploying initiatives via our local and regional DEI Panels

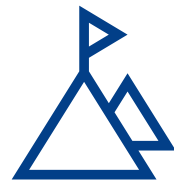
Our DEI organisational model involves employees across the organisation at the

global, regional, and local level. Our Global DEI panel, sponsored by Executive Leadership Team (ELT) members, provides strategic directions, defines a global roadmap, and offers support. Across the organisation we have regional and local DEI panels to better drive actions and address issues at the local level and drive accountability.

■ In Brazil, the DEI team has been active since 2020, with more than 20 passionate employees. As a first step, they validated an action plan based on embedding our code of conduct, focusing on psychological safety, creating DEI allies, and running a DEI survey to create a more specific action plan for targeted employees. The census allowed the team to map the population, identify gaps for specific minority groups and define the key priorities for the market, which resulted in initiatives focused on the female workforce: how to hire and promote more women; inclusion for people with disabilities and people in the LGBTQ+ community; how to increase the representation of people of colour; and DEI informal discussions.

[READ MORE](#)



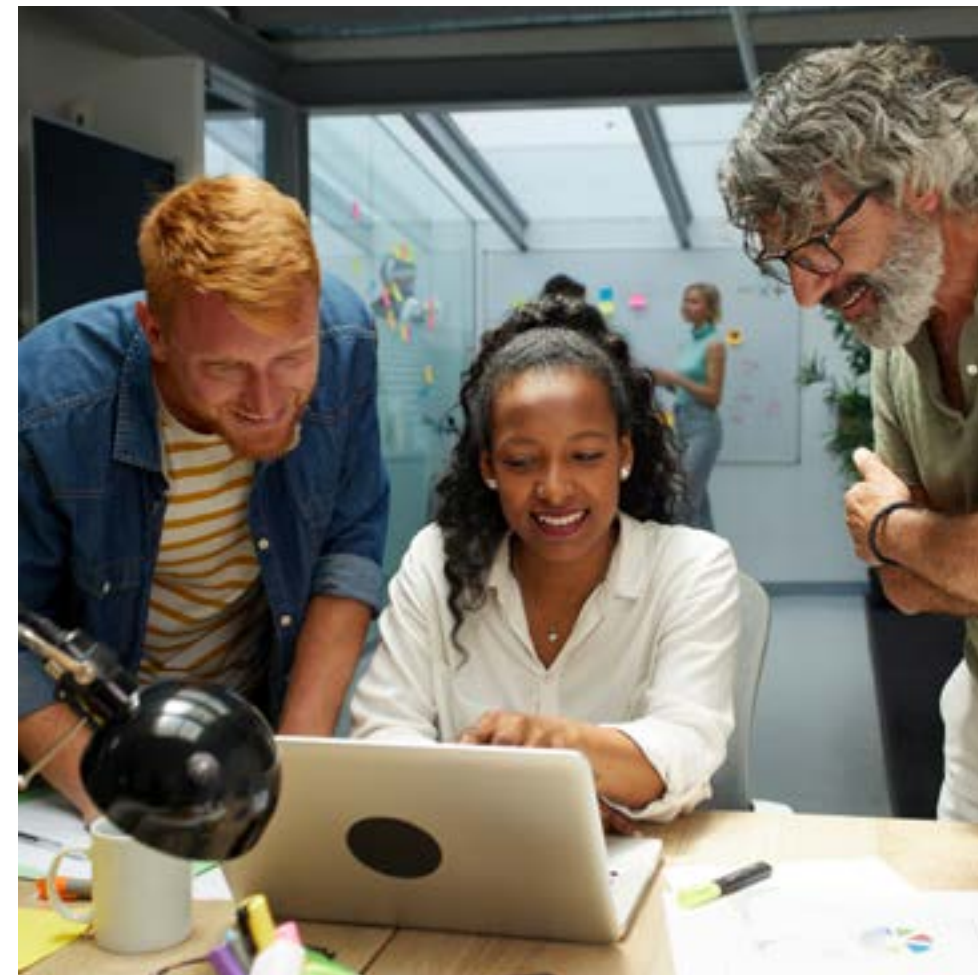


## Talent attraction, development, and engagement

**At Tetra Pak, every employee plays their part in delivering our strategy. Our investments in leadership and technical competencies – from recruitment to retirement – are therefore investments in the success of our business because they support productive careers with us. We offer competitive compensation and benefits packages<sup>1</sup>, opportunities for career growth, and a supportive and inclusive work environment to retain top talent.**

### Attracting new talent through our Future Talent Programme

We have several talent programmes to support the development and nurturing



of our workforce and provide job opportunities for recent graduates. Our Future Talent Programme hired 103 talented and highly motivated new graduates in 2022 to become the next generation of engineers and leaders in Tetra Pak. The programme is currently operational in 45 countries and supports our Future Talents to develop, learn, and build a holistic view of Tetra Pak and a solid global network.

[READ MORE](#)



*As a Future Talent, you are constantly challenged while given the freedom and trust to work on meaningful projects. The network I have built over the last one and a half years will benefit me in my future role to find synergies and work with others across the businesses and value chain. Together we can for example raise sustainability as an important topic with our suppliers in direct (e.g. raw material for equipment) as well as indirect purchases (e.g. logistics and software) to make sure they follow the Tetra Pak guidelines and Business Code of Conduct regarding environmental and social sustainability.”*



**Karola Kremer,**

Junior Supply Manager

Joined Tetra Pak and the Future Talent Programme in 2021

### Building competencies by promoting learning and development

By promoting learning and sharing knowledge and experience across the business, we build a culture where competence is respected, recognised and rewarded. Employees can expect continuous learning and development, aligned to their personal goals and contributing to our corporate strategy. Regular performance evaluations<sup>2</sup> are part of the company-wide review process and financial incentives are available to those meeting their goals, including environmental targets such as recycling rates and greenhouse gas emissions. We help our employees develop their competencies across corporate functions, from customer understanding, leadership and project management; to environmental and social sustainability.

<sup>1</sup> The majority of our employees receive benefits including over and above statutory provisions such as; accident, death and disability coverage 2x Annual Base salary global standard, medical and pension plans positioned at market medians for each country, long service awards where market prevalent, redundancy benefits include typically above legally required severance payments as well as globally consistent outplacement services.

<sup>2</sup> In 2022, 98% of employees had regular performance reviews



### Collecting and acting on feedback from employees

We regularly measure our employees' engagement and collect feedback on multiple topics. For example, we run a large-scale employee engagement survey once every two years. This survey allows employees to rate how well the company performs in the different drivers of engagement. To complement the large-scale survey, we run Employee Engagement Pulse surveys twice a year to give employees an opportunity to share feedback on specific topics, such as organisational changes or follow-up on findings from the large-scale survey.

### Enabling leadership development

In response to our latest employee engagement survey, we created three learning programmes addressing specific developmental needs for our people leaders and individual contributors: Remote Leadership, Coaching, and Informal Leadership. These programmes are launched between November 2022 and

May 2023. They utilise interactive methods of learning across a 2–4-month period and consist of on-the-job actions and experiments, virtual sessions, bite-sized self-paced digital learning, and peer coaching to provide a multi-faceted learning experience for participants.

In 2022 we launched “Energise”, a programme intended to support the leadership transformation in our factories. The programme was launched at 26 factories in 15 languages, where we trained over 400 leaders and facilitators on different leadership behaviours and challenges, in the context of the production floor. As a direct result of this, leaders and facilitators were able to deliver training workshops to 6,000+ production operators. Feedback provided by participants of our leadership development programmes stated that they believed our leadership curriculum would have a positive impact on their ability as a leader (NPS 4.6/5).

[READ MORE](#)

## SustainABLE 2.0 training

In 2022 we launched the SustainABLE 2.0 e-learning journey, tailored to our frontline staff to increase awareness and knowledge on climate, circularity and nature, and feel confident to undertake informed discussions with food and beverage manufacturers, NGOs, and other external stakeholders on these topics.



With the SustainABLE 2.0 learning journey, I was able to gain meaningful insight into the global regulatory requirements on packaging, packaging waste, as well as our efforts in collection and recycling. Armed with this knowledge, within a week, I found myself discussing comfortably on these topics with the top management of one of our global customers. Such time-relevant and focused learning programmes boost the confidence of our customer facing teams (people like me).

**Rajat Shah,**  
Services Director, Tetra Pak Thailand



Klabin forest,  
Brazil



## Workers and communities in our supply chain

**Our Responsible Sourcing Procedure sets out the requirements for all purchasing categories to manage risks in relation to human rights, labour practices, OHS, environment, and business integrity. As part of our commitment to respect human rights across our value chain, we assess and prioritise impacts on the people and the communities in our supply chain. We will address the most severe risks in our procurement of materials for our products, as well as the services we use.**

### Building our awareness and understanding of human rights issues

In 2022, we worked with [Shift](#), a leading centre of expertise on the [UN Guiding Principles on Business and Human Rights](#) (UNGPs), to assess our approach to

respecting human rights and how it can be further developed as part of our social sustainability strategy. As an outcome, we initiated a systematic risk identification process, to assess and prioritise risks to people across our value chain. For risks in our supply chain, this involved desk research, including reviewing suppliers' disclosure, relevant reports from civil society, international institutions and the media, and assessing information on suppliers from [Ecovadis](#), [Sedex](#) audits, and industry schemes such as the [Aluminium Stewardship Initiative](#). This was complemented by interviews with a selection of external experts from NGOs and international institutions that could provide expertise and insight into the severe risks to human rights in key supply chains, through dialogue with strategic



suppliers, as well as internal stakeholder interviews and workshops with category managers in our procurement function. Through this process, we assessed that the most severe risks that may occur to people in our supply chain could be as follows:

- Forced labour of workers and indigenous people's rights in the extraction or cultivation of our base materials<sup>1</sup>
- Environmental impacts on the livelihoods of communities from the extraction of our base materials.
- Security of human rights and environmental defenders in some higher risk countries
- Health and safety of workers in our base material suppliers' production
- Working conditions of workers at our logistics providers

We will develop action plans to prevent, mitigate, and remedy issues by collaborating with suppliers, industry peers, multi-stakeholder associations, governments, and civil society. As an example, we are engaging with our key logistics suppliers to communicate our expectations on human rights and assess the strength of their due diligence, provide guidance on enhancing their systems and explore potential areas for further collaboration on shared risks to people.

To inform and advance our work, we leverage external expertise and perspectives. In 2022, we joined AIM-progress, a forum of leading Fast Moving Consumer Goods manufacturers and common suppliers, assembled to enable and promote responsible sourcing practices and sustainable supply chains. We also joined Shift's Business Learning Programme, with participants from a wide variety of industries.

→ See *Responsible business practices* chapter

<sup>1</sup> Base materials are the materials we use to produce the packaging we sell to food and beverage producers, including paperboard, polymers, aluminium foil and inks.

Cataki Project  
in Brazil

## Workers in collection & recycling of packaging

**We work at a local level to activate, accelerate, and transform the collection and recycling sector with a dedicated team of professionals which collaborate with recyclers, local authorities, and customers to advise on efficient collection and sorting schemes, and co-invest with industrial partners in the recycling value chain. As part of the efforts, we are seeking new ways to ensure safe and decent working conditions for people across the recycling value chain.**

In 2022, we conducted a high-level mapping of the collection and recycling value chains for carton packages and assessed risks to people. As a next step, we will engage with informal waste collectors to inform market specific action plans in pilot countries.

By respecting collection and recycling workers' rights, we aim to help increase incomes and livelihoods, provide protection in risky environments and give them a voice in the future of collection and recycling systems. We already collaborate with stakeholders to establish an environment where informal waste collectors in collection systems work and live with dignity. For example, in our projects in Brazil and India.

→ See the *Collection & recycling* spotlight story

[READ MORE](#)





## Humanitarian assistance

We are working to further enhance our impact with a greater focus on the speed and type of response to humanitarian crises, providing assistance when required.

### Ukraine

In December 2022, Tetra Laval, the group which comprises Tetra Pak, Sidel and DeLaval, donated power and heat generators to a value of €10 million as humanitarian aid to the people of Ukraine, currently suffering major power shortages as a result of the Russian war on Ukraine. This donation was in addition to the €10 million already donated by Tetra Laval to Ukraine, since the start of the Russian invasion, through reputable aid organisations and through Tetra Pak's customers to ensure safe food distribution in support of Ukraine and Ukrainian refugees outside the country.

[READ MORE](#)

### Pakistan

Tetra Pak Pakistan donated €100,000 to support the Pakistan Red Crescent Society (PRCS) in response to its emergency flood relief appeal. The assistance immediately required by flood victims is lifesaving, however, the impact of this flooding will be long-term. The significant loss to the livestock and agriculture sector will not only impact the livelihoods of those affected but also the food security situation of the country in the medium- and long-term. There is a dire need for all stakeholders to work together and adopt smart solutions.



The massive havoc caused by these floods has shattered these communities, driving millions out of their homes and into the open to face danger and disease like never witnessed before. For an efficient capacity building of relief efforts, we believe in serving our part by supporting a major humanitarian actor such as the Pakistan Red Crescent, which has been actively involved in driving relief efforts across the country with great financial diligence and use of local capacity.

**Misbah Burney,**  
Finance Director, Tetra Pak Pakistan



### Türkiye and Syria

In early 2023, Tetra Pak gave support for people affected by the earthquake in Türkiye and Syria. To help affected communities who are suffering from a lack of electricity, we supplied generators, particularly for the rescue teams in night shifts, hospitals and permanent shelters. This is in addition to local employee activities to support those most affected, including blood donation campaigns and the introduction of an employee voluntary donation campaign for urgently needed items. These activities were done in partnership with local non-profit organisations.

[READ MORE](#)

# >> What's next?

We will continue to work towards our ambition to respect human rights across our operations and value chain, creating a positive social impact<sup>1</sup>. We plan to act on the following steps:

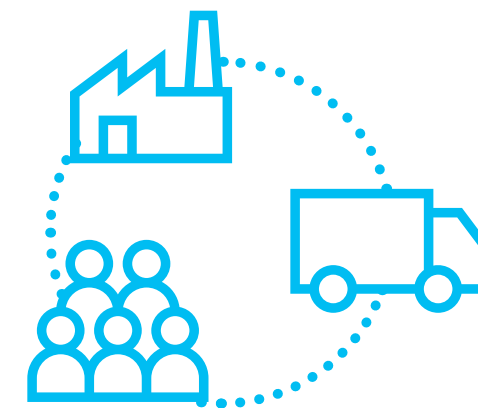


Expand support of mental wellbeing  through the Mental Wellbeing Programme

Continue efforts to increase the number of women in senior and factory positions

Expand focus on DEI work, beyond gender, by identifying and removing barriers to equal opportunities

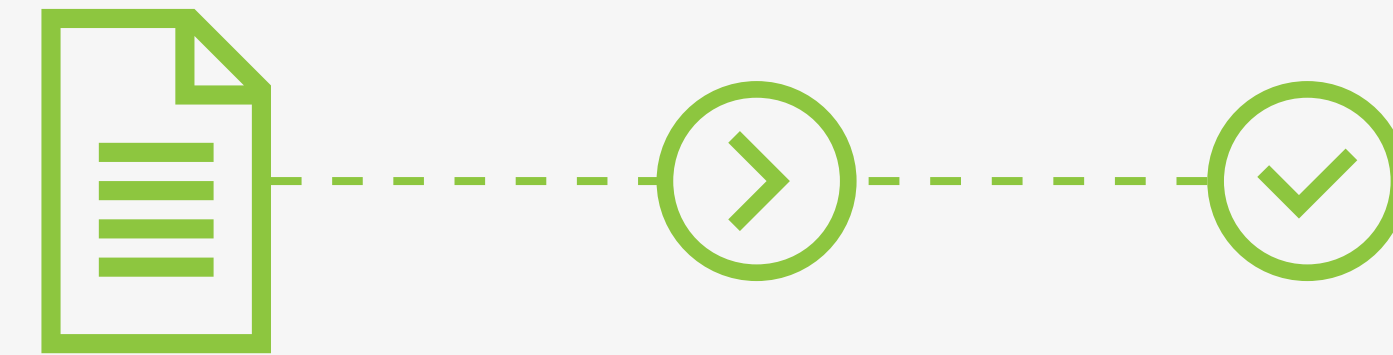
## Supply chain workers



Update our Supplier Code of Conduct to strengthen requirements in line with our overall sustainability strategy

Enhance our risk assessment processes, integrating human rights considerations into our annual supplier surveys and our due diligence on specific supplier categories

Engage with informal waste collectors to inform market specific action plans in pilot countries



**Develop action plans to prevent and mitigate priority human rights risks across our supply chain, own operations and collection and recycling**



In 2023, we joined **WBCSD's Tackling Inequality** project to further inform and advance our work on social sustainability

<sup>1</sup> By positive impact we mean driving better outcomes for our workforce, workers and communities in our supply chain, workers in collection and recycling and people in our value chain affected by climate change and the transition to net-zero in the areas of labour, discrimination, hazardous working conditions and sustainable income, among others

# Responsible business practices

**Tetra Pak is committed to conducting every aspect of its business with integrity, complying with the rule of law, and respecting human rights across our value chain, as we aim to lead the sustainability transformation in our industry. To us, responsible business practices, including good governance, are fundamental to delivering on our promise to PROTECTS WHAT'S GOOD™. 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 embedding these commitments into our policy framework and governance, we aim to build and enable a culture that supports the realisation of these commitments.**



## Good governance

Tetra Pak has an established Corporate Governance Framework guiding how we conduct business. Everything that we do as a company – developing strategy, taking decisions, and defining how we operate and act - is guided by this framework, which includes our Core Values, Code of Business Conduct, Group Policies, Procedures and Guidelines, and Risk Management principles.

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. Our approach helps us to identify, manage and mitigate risk through various policies, procedures, guidelines, processes, controls, and strategic initiatives.

The relationship between risk management, policies, control and assurance activities is seen in our Governance, Risk & Compliance (GRC) process. This is implemented through a well-defined yearly

cycle leading to clear deliverables and approval steps by leadership teams in central and local organisations. Risks are assessed bottom-up across the organisation, with corresponding internal controls self-assessed on an annual basis. Additionally, internal audits by Tetra Laval Audit, exceptions to policies and a Management Declaration report to the Tetra Laval Group Board provide assurance on our Corporate Governance activities throughout the year.

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 corruption related risks are distributed to all organisations involved in buying or selling, including Market Companies, Supplier Management Units and Processing Business Sectors. The Corporate Risk for corruption is assessed systematically every year. In 2022, 4 of 45 underlying risks were

re-assessed. No significant (i.e., Unacceptable based on the Tetra Pak risk appetite) risks were identified as a result of the risk assessments in this area.

We are committed to providing a working environment in which all employees are treated and treat each other with dignity and respect. We prohibit any form of discrimination, harassment, and bullying. Our Workplace Conduct Policy sets out mandatory rules of workplace conduct consistent with our values. In case of a concern, employees may communicate it with their managers to seek support, or to HR Country Services who can provide confidential advice and assistance. Anyone within or outside our business can anonymously report actual or suspected breaches of our Code of Business Conduct or any other critical concern 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. All complaints raised through the whistleblowing platform in 2022 have been properly investigated following the investigation process. The Tetra Laval Board receives regular reports from the CEO of Tetra Pak and from its Audit and Remuneration Committees, including management declarations, whistleblowing and risk reporting.

[READ MORE](#)

## Health and safety

The nature of our operational work, both at our own sites and at customers' sites, as well as the equipment our people work with brings with it workplace hazards. We have a strong network of regional and local Corporate Occupational health and safety (OHS) officers led by a Corporate OHS team to ensure that all companies within our business have access to competent Corporate OHS support to enable them to effectively assess and manage these hazards.

All employees are encouraged to report Corporate OHS incidents via *MyOHS*, a global software platform, which are then investigated, and appropriate corrective measures are taken. All incidents with an actual or high potential severity are subject to a further review by the Corporate OHS team in addition to the local investigation. Our ultimate goal is zero accidents and work-related ill health.

[READ MORE](#)

## Consumer and end-user safety

As pioneers in food safety technologies, we enable our customers to deliver safe, high-quality products and continue to raise their own quality standards. Package safety at Tetra Pak relates to mechanical and physical consumer safety of our packages. It ensures that all parts of the package are designed and manufactured to fulfil necessary legal and regulatory demands as well as Tetra Pak requirements. Equipment safety at Tetra Pak focuses on ensuring that the equipment we design, manufacture, and sell to customers is safe to use and compliant with equipment legislation and standards. We continuously monitor external safety requirements and translate these into Technical Corporate standards, which are applied during the design of all parts of packages and equipment and throughout the lifecycle. The execution of the Package Safety Risk Assessment and necessary equipment safety tasks and decisions have been integrated across our processes, to ensure that we deliver safe and compliant packages and equipment.

[READ MORE](#)



## Remuneration

Remuneration is governed by the Tetra Laval Group remuneration policy which outlines three key remuneration principles. Namely that remuneration will be:

- Relevant to attract and retain talent and appropriate for the respective labour market
- Predictable, transparent, equitable, balanced between fixed and variable elements and understandable
- Sustainable to serve business strategy, affordable and set in a responsible way so it aligns to different stakeholder interests

Remuneration policies, senior executive remuneration plans and individual remuneration are approved by the Tetra Laval Group Remuneration Committee.

One of our goals is to ensure that Tetra Pak employees in the same location with similar job levels, skills, experience and performance receive similar pay, regardless of their gender or other characteristics. We have been monitoring gender pay equity for all employees since 2019, using an algorithm developed with our Data Science team, and in line with methodologies at other major companies. The result of the analysis shows no variance in pay between men and women<sup>1</sup>.

<sup>1</sup> Please note in some countries there is a government measure called "gender pay gap", which takes the average pay of women versus men – but does not take into account job levels, skills, experience, and performance. Using this measure, all companies – including Tetra Pak – that have an uneven distribution of men and women at different job levels, will have a "gender pay gap".

## Responsible sourcing

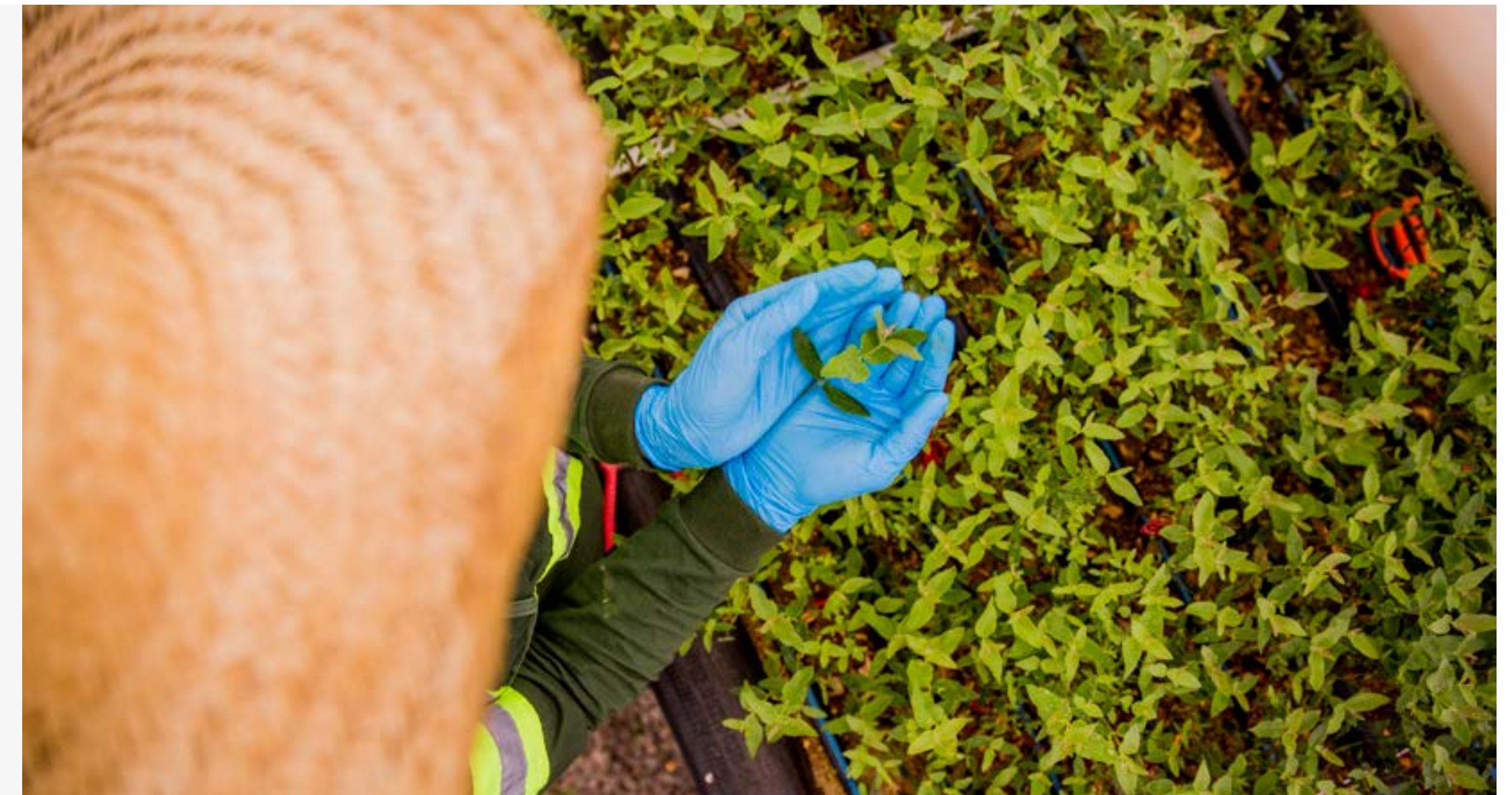
Our Responsible Sourcing Procedure sets out the requirements for all purchasing categories to manage risks in relation to human rights, labour practices, OHS, environment, and business integrity. We require suppliers to adhere to our Code of Business Conduct for Suppliers and undertake desk-based evaluations to assess suppliers' compliance and sustainability maturity. In addition, we have developed an OHS Handbook for Contractors, which sets out the minimum OHS requirements to be understood and followed by all Contractors engaged by Tetra Pak.

We collaborate with suppliers to increase the traceability and transparency of sourcing, building on our certified chains of custody and membership of voluntary sustainability standards.

→ See *Social sustainability* chapter

To define the scope of supplier desk-based evaluations and ethical audits, we conduct a regular risk mapping, using EcoVadis IQ with online indices of ESG risks related to the countries and industries in which our suppliers operate. Based on the risk assessment, we ask our suppliers to conduct either a site-specific Sedex Members Ethical Trade Audits (SMETA) for critical sites or an EcoVadis assessment. 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.

In 2022, over 500 suppliers were assessed for environmental and social impacts. Any suppliers identified with actual or potential negative impacts on people or the environment were contacted to request improvement or, in the case of SMETA audits, put a corrective action plan in place. We did not terminate any



Klabin, Brazil

relationships as a result of these assessments. During 2022, we joined the Sustainable Procurement Pledge to increase knowledge on responsible sourcing practices across our procurement organisations and empower supplier managers to drive the journey as part of their category strategies.

→ See the *Collaborating with suppliers* spotlight story

## Responsible marketing & 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 ways.

In 2022, we updated our procedure for making environmental claims, setting general principles (clear, relevant, accurate and substantiated) for environmental claims, which must be fact-based and follow authorities' guidelines, as well as best practices and local codes of conduct. The procedure is aligned with leading standards in the international arena, with the intention to implement consistent best practices.

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 practices and support specific projects. Along with more than 100 players

in the food and beverage industry, Tetra Pak has signed up to the [EU Code of Conduct on Responsible Food Business and Marketing Practices \(CoC\)](#): a common aspirational path towards sustainable food systems. This is one of several joint commitments and initiatives that bring industry leaders together as they work for more sustainable food processing, packaging and distribution<sup>1</sup>.

[READ MORE](#)



## Sustainability advisory panel

Our Sustainability Advisory Panel provides advice to the Executive Leadership Team and other senior leaders on strategic insight, guidance and assistance focused on sustainability and innovation in pursuit of Tetra Pak's purpose: "We commit to making food safe and available, everywhere. And we promise to protect what's good: protecting food, people and the planet".

[READ MORE](#)

<sup>1</sup> <https://www.tetrapak.com/about-tetra-pak/stories/eu-code-of-conduct-commitment>

# Spotlight stories

## Contents

Innovating to transform food systems 74

Collection and recycling: keeping valuable materials in use 76

Collaborating with suppliers 79

# Innovating to transform food systems



Transforming our food systems requires a holistic and interconnected approach built on new technology, science, and system innovation. At Tetra Pak, our processing and packaging technologies can improve availability and access to perishable foods while helping preserve their nutritional quality. However, to protect the ecosystems that support food systems, food ingredients and materials should be responsibly sourced, while simultaneously addressing climate change, which is both impacted by and significantly impacts food production and distribution. Finally, socioeconomic factors like food accessibility and affordability have to be considered for just and equitable food systems.

That is why, in 2022, we combined our industry expertise with [Fresh Start](#), a leading food technology incubator that works with a portfolio of start-ups to drive solutions that impact the future of food, beverages, and nutrition. Fresh Start's portfolio of solutions includes Bountica, a fermentation-based mechanism that prolongs the shelf life of food and beverage products and Alteco, which is developing a remote feature that allows production facilities to remotely manage their energy consumption.

Addressing the challenge of meeting the world's nutrition needs while not only limiting but reducing the environmental impact of our food systems requires us to

think differently and innovate our approach to food itself. Within alternative proteins we continue to collaborate and co-create with partners to provide equipment that will deliver innovative fermentation-based food solutions. In one such collaboration, we are building a greenfield fungi fermentation production facility in North Europe that will supply mince-based products to serve as ingredients for making alternative meat products. Alternative proteins open up



*Our collaboration with Tetra Pak marks a significant opportunity to accelerate the development of solutions from our start-ups, which will drive the advancement of our food systems and prepare them for the challenges of the future.*

**Noga Sela Shalev,**  
CEO, Fresh Start FoodTech Incubator IL

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. A combination of all these factors paves the way for delivering food to a growing population in a more sustainable way, supporting Tetra Pak's ambition to reach net zero across the value chain by 2050.<sup>1</sup>

<sup>1</sup> <https://www.tetrapak.com/about-tetra-pak/news-and-events/newsarchive/tetra-pak-collaborates-with-mycorena>





*From around the world we are seeing high interest in this technology which shows that circular business models will play an integral part in food systems moving forward.*

**Mirko Stanic,**  
Market Operations Mid-Europe, Tetra Pak



Relying on a holistic systems-based approach also means a move towards a circular economy, where food waste must be avoided, reduced, and transformed into new products. With circularity as one of our focus areas, we have invested to develop a technology to recycle [Brewer's Spent Grain \(BSG\)](#)<sup>1</sup> into a plant-based beverage. This technology turns low-value side streams into a high-value functional beverage for the booming plant-based

market, providing beverage companies with a new source of income and smart use for their spent grain at the same time as reducing their climate impact as it does not require using additional land or water for growing them. We have received positive feedback about our technology regarding its global and sustainable application, and we have started worldwide individual projects with companies to make use of BSG.

*Brewer's Spent Grain (BSG)*

<sup>1</sup> Brewer's Spent Grain is the industrial moniker used to describe the malt after a brewery has already used it to make beer. Source: <https://www.regrained.com/blogs/upcyclist/what-is-spent-grain>

## Collection and recycling

# Keeping valuable materials in use

We are striving to contribute to the achievement of the 70% recycling rate carton package target in the European Union by 2030<sup>1</sup>, fulfil national recyclability criteria in all countries we sell packaging, and fulfil Ellen MacArthur Foundation's (EMF) Global Commitment<sup>2</sup>.

We have already demonstrated through innovation and investment our drive to achieve these goals, however we can't keep the materials in our packaging circulating in the economy if carton packages are not collected for recycling, which requires system-wide action and cooperation, supported by a regulatory framework that creates the conditions to turn challenges into opportunities. Getting used carton packages collected is a crucial step towards achieving our goals but also those recently established in the new PPWR.



*“We need to move away from a linear ‘take-make-waste’ model towards a more connected circular economy. But being part of a circular solution can’t be driven singlehandedly by one individual or entity – scientists, policy makers, recyclers, industry players and citizens must work together.”*

**Markus Pfanner,**  
Vice President Sustainability Operations, Tetra Pak



Considering the interconnectedness of the entire recycling value chain and its impacts on nature, climate and people, we invest time and effort in creating consumer awareness, advise local authorities on waste collection, develop technologies and end markets for all materials in carton packages, and collaborate with stakeholders to establish an environment where informal waste collectors can work and live with dignity. Keeping materials in use benefits nature and climate<sup>3</sup>, while also helping the communities where these materials are collected, by creating new jobs and new source of revenue.

We collaborate with our customers and retailers on joint awareness activities that share information and inspire consumers to sort cartons as much as they can every day. For example, “Recicla Cidade” in Brazil delivers training courses for municipal employees and cooperative members, carrying out more than 552 awareness

<sup>1</sup> Collection increase depending on supporting policy implementation per EU member country.

<sup>2</sup> The Global Commitment is led by the Ellen MacArthur Foundation, in collaboration with the UN Environment Programme. Through the Global Commitment, businesses and governments commit to change how we produce, use, and reuse plastic. They will work to eliminate the plastic items we don't need; innovate so all plastic we do need is designed to be safely reused, recycled, or composted; and circulate everything we use to keep it in the economy and out of the environment." Source: <https://ellenmacarthurfoundation.org/global-commitment-2022/overview>

<sup>3</sup> As per the definition of circular economy from EMF: "The circular economy gives us the tools to tackle climate change and biodiversity loss together, while addressing important social needs." Source: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>



Waste pickers in Southern Vietnam

Tu Papel Cuenta, Panama

campaign actions and reaching 192,000 people through mobilisation actions in 2022. In Southern Vietnam, we launched a project to promote the collection of used carton packages through the informal sector, in which we engaged and connected Tetra Pak's partner recycler – the paper mill Dong Tien – with waste aggregators and waste pickers, making sure the demand for used carton packages is known.

We support and advocate for efficient collection and waste management legislation and infrastructure, whilst working on recycling capacities and end markets for recycled materials from used carton packages. In 2022, this has included various initiatives, such as Tu Papel Cuenta in Panama and Guatemala where 1,700 tonnes of carton packages were collected and recycled, and six new collection centres were built.



Strategic collaborations in the development of technologies to recycle polyAl are also key. In Poland, for example, we invested alongside Plastigram and Stora Enso €29.1 million in one repulping line that will recover the carton fibres and another one to recover and recycle the polyAl, using a patented separation technology. We are also working to further develop uses for recycled compounds of PE and aluminium, such as in Italy, where Ecorevive is focusing its production on polyAl agglomerates, used for garden furniture and building construction applications, and EcoPlasteam is producing high-quality extruded compounds used for several applications such as bathroom items, toys, and automotive components.

→ See the *Circularity* chapter



Plastigram, Poland

The Cataki project, Brazil



The Cataki project, Brazil

In Brazil, we support the Cataki project in São Paulo and Belo Horizonte which aims to improve workers' sense of autonomy and their ability to sustain themselves and their families. Through an app, waste pickers are connected to recycling cooperatives and receive a subsidy that increases the value of waste material. Over 57% of Cataki app users have improved their incomes by receiving more collection requests and consequently collecting material for sale, and 31% now receive payment for the collection activity in addition to the sale of waste material.

We collaborate with stakeholders to establish an environment where informal waste collectors in collection systems—crucial for managing waste and increasing recycling of packaging in countries lacking formal waste collection—work and live with dignity. As a group, they experience dire conditions at work including injuries, exposure to toxic materials and fumes, hazardous child labour, exclusion from health care and social security provision, and incomes well below the poverty line.

In India, we support the work of Bal Vikas Dhara (BVD) to empower marginalised women and children. The initiative aims to improve the livelihoods of waste-collecting communities through several interventions such as Non-Formal Education Centres, a health clinic and health camps, and a Cutting and Tailoring Centre for Women that teaches sewing skills to enable women to generate an income in a safe working environment.

→ See the *Social sustainability* chapter



# Collaborating with suppliers

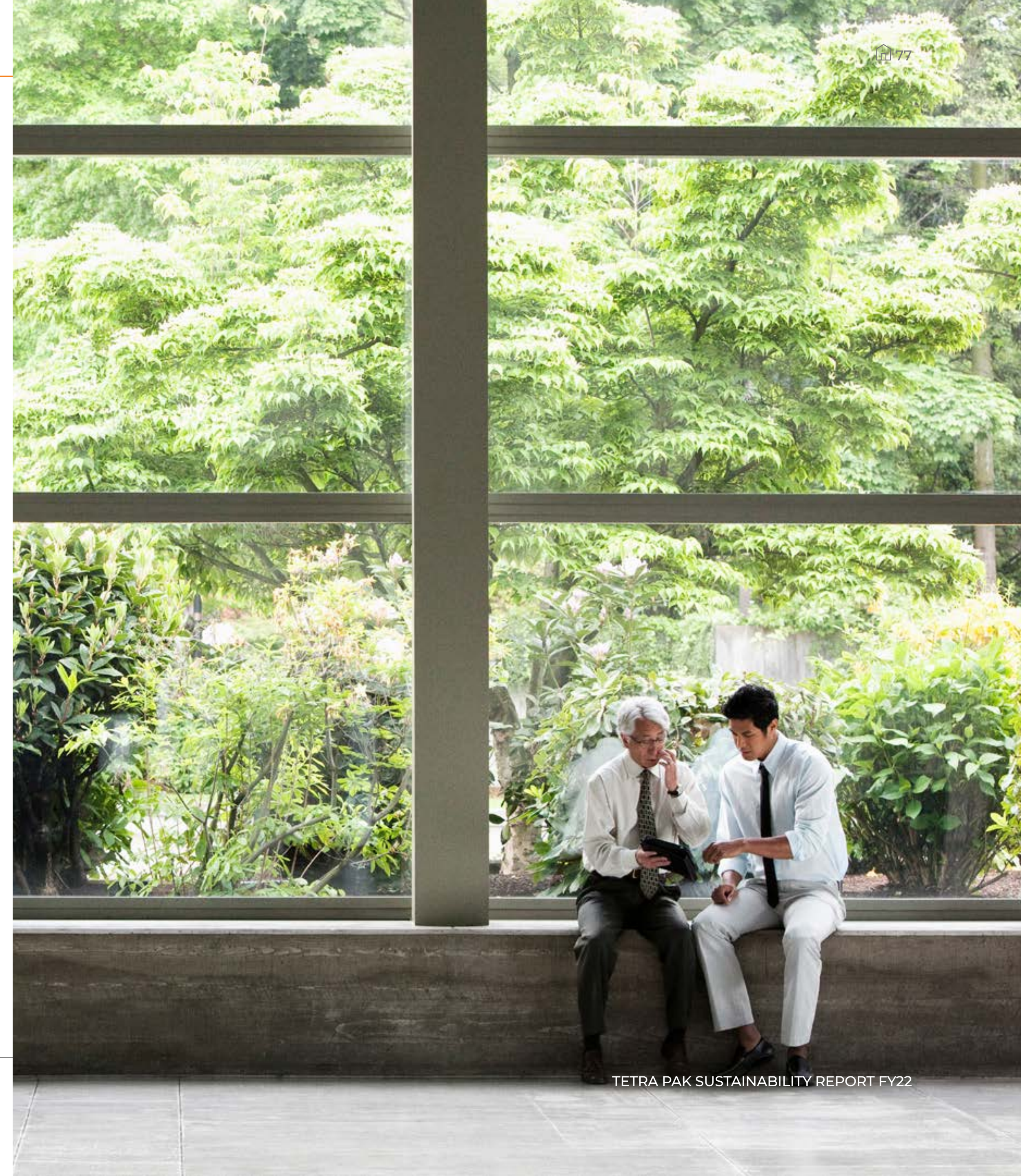
Leading the sustainability transformation and achieving our goals, such as net-zero GHG emissions across the value chain by 2050 from a 2019 baseline, depends on our ability to work closely with our suppliers. By taking a holistic approach that considers actual and potential impacts on environment and people in our supply chain, we aim to leverage collaboration to mitigate risks and create positive impact beyond our own operations.

Beginning with supplier selection, in 2022, 100 % of new/current base materials<sup>1</sup> and 98% of equipment and services suppliers were screened using environmental and social criteria. We actively encourage and support our suppliers to go beyond our

Supplier Code of Conduct and responsible sourcing requirements by assessing the impacts of their operations and supply chain on people and the environment, and setting action plans to address these. As an example, we are assessing the human rights risks in our supply chain by examining the most severe risks to people, working with our suppliers to understand current management of these risks and proper investigation, and that remedies have been applied where necessary.

→ See the *Social sustainability* chapter

<sup>1</sup> Base materials are the materials we use to produce the packaging we sell to food and beverage producers, including paperboard, polymers, aluminium foil and inks.



## 20 ACTIONS FOR 2030

### 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*



*Our ability to reach our goals depends on our suppliers. They need to deliver activities which are specific to Tetra Pak production, such as switching to renewable energy and optimising processes to save energy. This will require massive investments from our suppliers and thanks to our long-term collaboration, these investments will help decarbonise the value chain.*

**Clara Grandry,**  
Sustainability Specialist, Finance & Supplier Management (FSM) Base Materials, Tetra Pak

Our main supplier initiative 'Join us in Protecting the Planet' launched two years ago. In this initiative we work closely with 45 out of our 60 base materials suppliers to improve in the areas of climate, biodiversity, and circularity. These 45 suppliers account for 99.5% of the purchased volume for base materials for 2022 and 99% of our base materials' GHG emissions<sup>1</sup>. We have set 20 actions across Climate, Biodiversity, and Circularity, committed to by our base materials suppliers between now and 2030. Recent developments in the three areas have included:

#### Climate

- Two suppliers obtained approval for their SBTi target in 2022, totalling seven suppliers with an SBTi target
- 14 suppliers, representing 61.5% of our emissions, have shared a climate action plan to help us reduce emissions by 50% in 2030
- In 2022, nine of our suppliers achieved A/A- on CDP Climate (eight in 2021), out of the 17 now reporting (16 in 2021)

#### Biodiversity

- In 2022, two of our suppliers achieved As on CDP Forest, out of our eight suppliers now reporting
- In 2022, six of our suppliers achieved As on CDP Water (four in 2021), out of our 14 suppliers now reporting (11 in 2021)

#### Circularity

- In 2022, we multiplied by four the tonnes of certified recycled polymer content sold to our customers compared to 2021

<sup>1</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



Ineos



*INEOS has made a breakthrough in climate actions in the polymer industry by implementing a clearly defined and detailed GHG roadmap. The award is a recognition of their comprehensive action plan, their openness and willingness to share their data, despite the challenges to collect them, as well as their collaborative spirit.*

Each year, we reward our best-performing base materials supplier for their performance across each of the three areas. INEOS, one of our polymer suppliers, won our Supplier Sustainability Award for 2022. In climate, INEOS shared a clearly defined and detailed GHG roadmap, bringing us closer to our target of reducing upstream GHG emissions by 50% by 2030. For circularity, working with INEOS has been instrumental in offering the first carton packages with RSB Advanced Products certified recycled polymers in the food and beverage packaging industry. And for biodiversity, INEOS is supporting a forestry project in Zambia that combines social and economic initiatives with environmental science to promote reforestation.

**Francisco Ballas,**  
Senior Sustainability Specialist,  
FSM Base Materials



*We were honoured to receive the 2022 supplier award from Tetra Pak under their sustainability award program. INEOS has made firm commitments to reduce emissions and in the short term, the action includes switching to low carbon fuel sources, powering our plants with green energy and optimising our operations. We are also investing €4 billion building Europe's most sustainable cracker, Project ONE, which will use ethane as a feedstock and will set new environmental standards by using the best available technology. These actions will not only reduce INEOS' own emissions but could enable us to reduce the carbon footprint of the polymers supplied to Tetra Pak by at least 50% in 2030, compared to 2019. We look forward to working alongside our partners at Tetra Pak to leverage these investments and help them to achieve their own emission targets.*

**Rob Ingram,**  
INEOS Olefins & Polymers North CEO

### Co-creating to find solutions

We have undertaken joint workshops with suppliers where we co-created activities looking at new ways to reduce energy usage, waste, and water. The outcomes will be followed up in regular supplier review meetings. In addition, we have developed a new sustainability roadmap for our Supplier Management supplier base, which includes strengthening our work on responsible sourcing, enabling purchasing categories to drive sustainability improvements with their suppliers, and extending our Join Us in Protecting the Planet initiative to key equipment and services suppliers.



*Thanks to the collaboration with the Social Sustainability team, we started driving our logistics service providers' commitment and action to advancing human rights across their operations, supply chains and beyond.*

**Kristina Andric,**  
Supplier Manager, FSM Supplier Management,  
Tetra Pak

With our logistics suppliers, we are assessing the strength of their human rights due diligence, providing guidance on enhancing their systems, and exploring areas for further collaboration on shared risks to people. In 2022, we discussed topics including the Just Transition<sup>1</sup> and how efforts to decarbonise must integrate respect for human rights, the importance of engaging workers and affected stakeholders in due diligence processes, and approaches to establishing more effective grievance mechanisms.

<sup>1</sup> The Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. It provides targeted support to help mobilise around €55 billion over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition. Source: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en)



