Tetra Laval

2021/2022

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Tetra Laval statement on the war in Ukraine

As we send this report to print in mid-April 2022, Europe is no longer the same - the long-standing conflict between Russia and Ukraine has taken a brutally violent and very sad turn.

We stand in support of all those whose lives have been affected by this tragic and terrifying war. We do right now not wish to speculate on its impact on our business - our focus has been and will remain the safety of our Ukrainian employees and their families, and to the best of our ability contribute to ease the suffering of the Ukrainian people. We have done so, and are doing so, both financially and in practice. The Group has donated EUR 10 million to humanitarian support for Ukraine - primarily through aid organisations, but increasingly in cooperation with our customers in the western part of Ukraine who have managed to keep operating.

The war also affects our business in Russia, and international sanctions directed towards that country impact our ability to operate there. However, such sanctions have so far exempted the food industry in order not to hinder supply of basic food to ordinary consumers. It is in accordance with this principle that we remain with restricted operations in Russia - with DeLaval to help secure animal welfare and with Tetra Pak to help enable safe packaging for our customers' distribution of basic food.

As a company, we stand with Ukraine and strongly support its aim to remain a free, democratic and sovereign country.

THEME

Sustainable Food Systems

‘Sustainable Food Systems’ is the theme of this year’s Tetra Laval Annual Report. Indeed, it is a theme that concerns our entire Group. Food systems affect both humans and the environment, and the industry groups of Tetra Laval play an active role in improving food systems around the world through their products, solutions and know-how.

The term ‘food system’ refers to the constellation of activities involved in producing, processing, transporting and consuming food. The many challenges for today’s global food systems include malnutrition, food waste, greenhouse gas (GHG) emissions, but also human conflicts and a growing global population. Well-designed production facilities, food processing technologies and packaging solutions can strengthen food supply chains and build resilience in food systems to address these challenges.

In September 2021, the United Nations hosted the first global food systems summit, which laid the foundations for how our food systems can be transformed to achieve the UN Sustainable Development Goals (SDGs) by 2030. The Tetra Laval Group is committed to the SDGs and believes that we can contribute in many ways to improve the world’s food systems and to make them more sustainable.

This report highlights how **Tetra Pak** has identified six impact opportunities where we can help drive systemic change and support the Food Systems Summit objectives. These are initial opportunities that will require more research, discussion, and collaboration. A customer example in the report highlights how Tetra Pak has helped Matriark Foods in the US to develop a new, healthy, low-sodium vegetable product made from food waste. Tetra Pak has a long history of working with sustainability. Its products have a relatively low carbon footprint due to the use of aseptic technology and renewable materials. Tetra Pak is committed to further reducing the environmental impact of its products and services, with the aim of creating cartons made solely from renewable or recycled materials, which are responsibly sourced and carbon neutral.

Equally **Sidel**, with its packaging solutions and know-how, contributes to creating sustainable food systems. One good example is the Belgian milk producer Inex that has invested in Sidel’s new efficient aseptic PET packaging line, which will boost production capacity and sustainability by supplying ultra-high-temperature (UHT) milk products in PET bottles. Sidel also works to support its customers to further reduce their GHG emissions, such as by helping them to convert their packaging to recycled PET (rPET). rPET generates 80 per cent less GHG emissions compared to virgin PET and can provide recyclable, recycled and safe packaging.

DeLaval also has a strong focus on sustainability. Its focus on animal welfare together with best farm management practices, productivity, better nutrition, genetics, health and longevity create more efficient and sustainable dairy systems. A healthy animal provides more milk, at a better quality and for more years. This contributes to sustainable food systems by optimising the use of resources and the amount of milk produced – to drive farm profitability while promoting food safety through stringent compliance controls. Another highlighted example is DeLaval’s Flow-Responsive Milking technologies, which utilise every cow’s full potential during milking by balancing their natural push with the pull of the milking machine to optimise milking.

The necessity of transforming our food systems

Everyone deserves the right to have access to safe and nutritious food. Securing efficient food distribution has been the founding principle for Tetra Laval. Millions of people around the world suffer from hunger and malnutrition. Food systems in general are today inefficient, unbalanced and in some ways unsustainable. As these systems profoundly affect our health, environment, economies and cultures, transforming them can help create a more sustainable society – while contributing to the UN Sustainable Development Goals.

Multiple challenges for global food systems

More and more countries are experiencing the double burden of malnutrition, where one in nine people suffer from undernutrition while a third of people are obese or overweight[1]. Fighting hunger has been a world challenge for decades. But the situation has worsened due to Russia/Ukraine war and the pandemic with a widespread loss of incomes, threatening food security, health and nutrition[2], and about 690[3] million people are currently suffering from hunger.

The demand for food is expected to continue to grow because of both population growth and rising incomes, which puts additional pressure on food systems. By 2050, the global population is expected to reach 9.7 billion, increasing the demand for food[4]. Food systems are also vulnerable to disruptions from human conflicts and from climate change, i.e., farming and harvesting disruptions, water scarcity, soil erosion and drought resulting in lower food production.

In addition, global food systems, account for about a third[5] of all greenhouse gas emissions. About a third[6] of all food produced is also lost or wasted, mainly due to insufficient production practices, inadequate infrastructure, lack of packaging, short shelf life and unsustainable consumption practices.

The UN Food System actions areas

On 23 September, the UN convened a Food Systems Summit in New York as part of the Decade of Action to achieve the UN Sustainable Development Goals (SDGs) by 2030. An ambition of the summit was to propose new actions to deliver progress on the 17 SDGs, which are all related to some degree to healthier, more sustainable and equitable food systems.

There are five areas to accelerate action to deliver on Agenda 2030 through food systems:

Nourish All People
To support work to end hunger and all forms of malnutrition and reduce the incidence of non-communicable disease.

Boost Nature-Based Solutions of Production
To support work to optimise environmental resource use in food production, processing and distribution – to reduce biodiversity loss, pollution, water use, soil degradation and greenhouse gas emissions.

Build Resilience to Vulnerabilities, Shocks, and Stresses
To support work to ensure the continued functionality of sustainable food systems in areas that are prone to conflict or natural disasters.

Advance Equitable Livelihoods, Decent Work, & Empowered Communities
To support work to eliminate poverty by promoting full and productive employment and decent work for all actors along the food value chain, enabling entrepreneurship and addressing the inequitable access to resources and the distribution of value.

Means of Implementation
To help countries leading up to the UN Food Systems Summit connect to initiatives, and resources around finance, governance, science and knowledge, innovation, technology and data, capacity, and beyond.

The Tetra Laval Group has a strong commitment to contribute to the UN Sustainable Development Goals and the above-mentioned Action Areas. For instance, Tetra Pak has identified several impact opportunities that can help drive system change and support the UN initiative. These include food innovation for healthier food, school feeding programmes for improved nutrition, minimised food loss and waste through innovative food processing technologies and packaging solutions, and sustainable dairy farming.

References to be found on page 55.

School Feeding Programmes and local dairy hubs contribute to secure and sustainable food systems

There are several challenges that need to be overcome to fulfil the UN initiative on Sustainable Food Systems. The Tetra Laval Group contributes to providing access to safe nutrition in several ways. This includes playing an active role by working in collaboration with customers and other partners to develop School Feeding Programmes around the world and to increase the supply of locally produced high-quality milk through our Dairy Hub model.

Major challenges but also opportunities

Achieving global food security in a sustainable way is a complex task in a world faced with a growing population and an increasing demand for safe, nutritious food. Climate change, water scarcity, land use, urbanisation and supply chain disruptions add to these challenges. But there are also many opportunities for improvement.

One opportunity for food production is to increase yields and productivity in an environmentally sustainable way to meet the needs of a growing population. For example, in the dairy value chain alone, approximately 42 per cent (867 million tonnes) of the global milk production is produced by smallholder farmers and most of this milk is not formally processed or packaged. Meanwhile, the yields and income levels of smallholder farmers are very low and many lack access to formal markets. Improving production and infrastructure for milk present another related opportunity – a highly nutritious product like milk can play a key role in improving nutrition for children and communities in need today, as well as the growing global population in the long term.

Tetra Laval's contribution to safe and nutritious food

The Tetra Laval Group is committed to creating more secure and sustainable food systems by increasing access to safe and nutritious food.

For example, throughout our history Tetra Pak's food processing and packaging technology has played a key role in providing school children around the world with access to safe nutrition. School feeding programmes have proven to have a positive impact on children's physical health and education by reducing malnutrition and improving school enrolment and attendance rates. They also play an important role in local agricultural development and job creation. Today, more than 68 million school children in 56 countries receive milk or other fortified beverages in Tetra Pak packages.

"Tetra Pak and Tetra Laval Food for Development support customers and collaborate with governments, NGOs, the UN and International Development Aid agencies in the development of school feeding programmes linked to local agricultural development," says Rafael Fábrega, Director of Tetra Laval Food for Development.

Tetra Laval Food for Development and DeLaval's knowledge and expertise in dairy farming has also been vital in the development of the Dairy Hub model. The model links smallholder farmers to a dedicated dairy processor in a selected area and provides hands-on practical knowledge transfer. Providing farmers with training services and setting up appropriate cooling infrastructure and technology increases the supply of locally produced quality milk. Dairy Hubs have helped provide access to formal markets and improve the livelihoods of more than 54,000 smallholder farmers through 16 projects in various parts of the world.

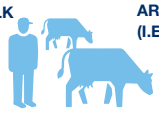
"With the combination of technology, know-how, and expertise, we believe we can make a real difference by working together with customers and collaborating in partnership," concludes Fábrega.

16 DAIRY HUB PROJECTS

SINCE 2011

55,720 FARMERS DELIVERING MILK TO CUSTOMERS IN DAIRY HUB PROJECTS

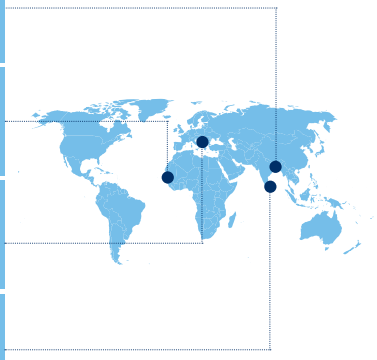
OF WHICH **98%** ARE SMALLHOLDERS (I.E. 54,646)



636,998 LITRES/DAY COLLECTED ON AVERAGE COMES FROM SMALLHOLDERS

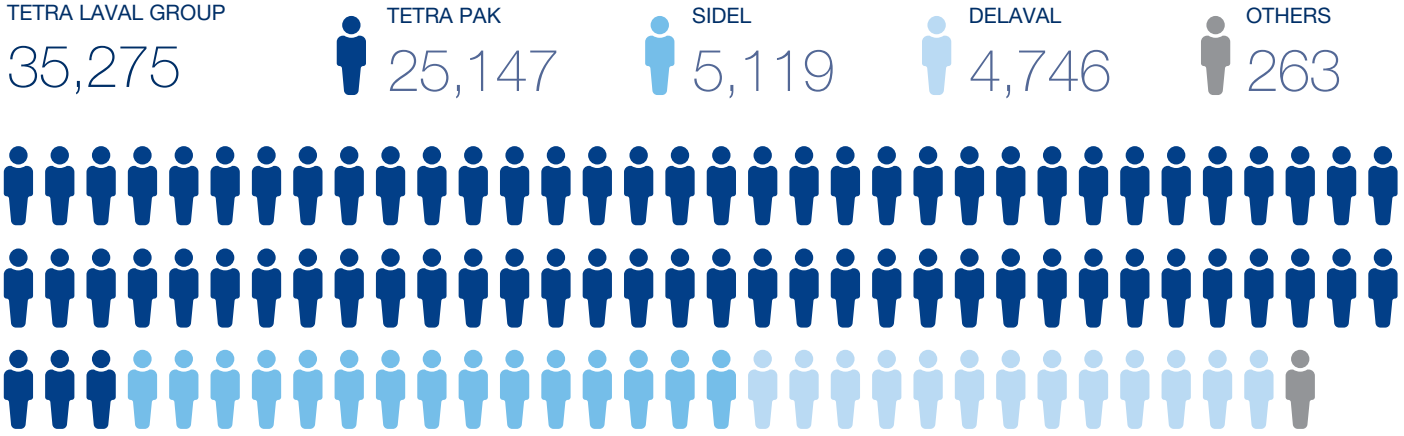
Smallholder farmer income increase

Bangladesh	+144%	FROM US$100 TO US$244 PER MONTH
Senegal	+111%	FROM US$120 TO US$253 PER MONTH
Albania	+92%	FROM US$248.4 TO US$477.9 PER MONTH
Sri Lanka	+57%	FROM US$36.5 TO US$57.3 PER MONTH

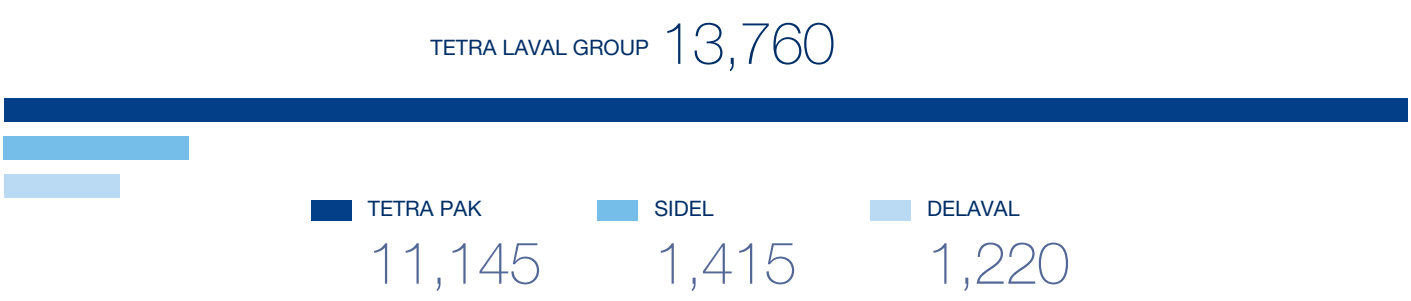


The Tetra Laval Group consists of three industry groups, Tetra Pak, Sidel and DeLaval, all focused on technologies and services for the efficient production, processing, packaging and distribution of food. The head of each industry group has operational management responsibility for the respective industry group and reports directly to the Tetra Laval Group Board. The Group Board is responsible for the overall strategy of the Group and for controlling and supervising all of its business operations. The Chairman ensures the implementation of the Group Board decisions and the implementation of strategy and policy for the Group.

NUMBER OF EMPLOYEES, DECEMBER 2021



NET SALES 2021, MILLION EURO



Protects what's good

Tetra Pak is the world's leading food processing and packaging solutions company. Working closely with customers across the globe, we provide a broad range of innovative products, technologies and services, helping to make food safe and available, everywhere.

Performance through understanding

Sidel is a leading provider of equipment and services solutions for packaging beverages, food, home and personal care products in PET, can, glass and other materials.

We make sustainable food production possible

DeLaval is a full-service supplier to dairy farmers. The company develops, manufactures and markets equipment and complete systems for milk production and animal husbandry.

Good revenue growth and strong order intake

We experienced continued resilience of the Group and we are pleased to report that all three industry groups exceeded expectations given the specific conditions they operated under. The Group's net sales amounted to €13.8 billion, which is a nominal increase of 4.7 per cent compared with 2020, despite the strengthening of the Euro, especially versus the US dollar. At comparable exchange rates, sales increased by 5.1 per cent. However, operating profit decreased, due to unprecedented increases in raw material costs, supply shortages and logistic costs partly mitigated by price increases and structural cost reductions. The Group generated a strong cash flow, thanks to lower working capital and lower cash outflows on business acquisitions.

We did not experience any significant negative impact due to the pandemic but rather saw growth in many markets, particularly in China, India, Vietnam and the US. Despite the disruption brought about by the pandemic, we managed to support customers in various ways to mitigate the impact in their operations. The rapid progress in utilising digital tools and remote working continued. Digitalisation has allowed us to install and validate customer equipment and quickly solve customer problems – all remotely. Efficiencies and new ways of working driven by the response to COVID-19 are expected to continue after the pandemic.

On behalf of the Board, I want to express our gratitude to our dedicated employees for the outstanding performance and their commitment during a challenging year.

Tetra Pak – Strong growth of packing material

Total net sales amounted to €10.8 billion, which is an overall increase of 4.1 per cent excluding currency effects compared with 2020. Packaging Solutions sales rose by close to 5 per cent, with the number of packs increasing by a similar amount, ending the year with 193 billion packs.

Processing Solutions net sales increased by 0.5 per cent, while orders received were at an all-time high, securing a solid backlog. The Services business recorded net sales growth of 9 per cent, which was a great achievement, considering the effect of restrictions on the movement of people.

We continued to lead the sustainability transformation within the industry, achieving many new milestones. Our packages are today made from around 70 per cent renewable materials, which means a lower climate impact compared with other packaging solutions. Together with our partners, we continue to drive recycling and circularity through a range of activities across the value chain in markets around the world, including co-investments in increased recycling capacity, validation tests for non-foil packaging and a switch to paper straws in the EU.

To improve the availability of 'smart' packaging for the food and beverage industry, we installed a new digital printer in the US. In 2021, we delivered over 1.2 billion connected packages with unique QR codes to enable traceability and unique consumer interactions. Other innovations included new high-speed packaging lines that can produce up to 40,000 packages per hour.

The pandemic has proved the resilience of Tetra Pak as a company, but also highlighted how we can become an even more dynamic, productive and capable company. We are now laying the foundations for the next chapter of the 70-year Tetra Pak story, with a new operating model that will fundamentally change how we operate. This will enable us to optimise our operations, promote flexibility, ensure shorter lead times and reduce costs.

In 2022, we expect to see good top-line growth across all our businesses, supported by visible improvements in priority areas such as quality and sustainability. However, key supply shortages such as for semiconductors create uncertainty and require us to be far more agile to address customer demand.

DeLaval – Third year of record sales and profitability

Total net sales amounted to €1.2 billion, which is an overall increase of 5.5 per cent excluding currency effects compared with 2020. Our business was driven by a strong global market demand for milk, with an increase in the home consumption of dairy products that more than compensated for the effects of schools and restaurants being in lock down around the world. Sales of our rotary parlours grew by almost 50 per cent, primarily driven by strong demand in China and the US, where customers invested in new capacity to meet the growing demand for milk. In China, the increased self-sufficiency of milk production imposed by the authorities, played an important role. We also saw a strong demand for DeLaval VMS™ V300 and V310, our robotic milking systems, as well as our various inService™ concepts where our subscription models grew significantly for dairy consumables. Automatic milking became even more relevant during the pandemic given the difficulties of having personnel on farms.

New ways of working were introduced to keep farms running and maintain their operations. For example, we installed and commissioned equipment at dairy farms remotely through digital tools and advice from engineers thousands of miles away – something that would have been inconceivable just a few years ago. Several new products were launched in 2021. The work to invent truly sophisticated digital services with sensor technologies also progressed well.

After 18 years of outstanding performance as CEO, Joakim Rosengren decided to step down. He was succeeded by Paul Löfgren, who is a seasoned industrialist with a broad experience that has worked at DeLaval for the last 10 years.

Our innovative product portfolio in combination with the subsidy programmes that remain in place in the EU until mid-2022 mean that we anticipate continued growth.

Sidel – Strong recovery exceeding expectations

Sidel exceeded expectations in net sales, order intake, operating profit and cash flow in 2021. Net sales amounted to €1.4 billion, an increase of 13 per cent at comparable exchange rates and the service growth of 12 per cent was quite an achievement. Through an efficiency programme, we managed to substantially reduce costs and thereby improve operating profit.

Order intake increased by 42 per cent for capital goods and 11 per cent for services. The packaging market started to rebound in the fourth quarter of 2020 and the positive trend continued throughout 2021, with consumer demand back to 2019 levels for most categories. Health and nutrition remain a priority for consumers, which boosted demand for products like flavoured water and dairy. The interest in 'water on the go products' also returned as well as aseptic bottles for healthy products, especially in the US. In terms of packages, PET enjoyed a strong demand with a particular interest in recycled (rPET). In 2021, demand for both PET and can exceeded 2019 levels.

During the pandemic, we accelerated our application of digital services with the launch of the Evo-ON® digital suite and remote services for the installation and servicing of machines at customer sites. We have developed a new aseptic PET line solution that lowers the CO_2 footprint through a more efficient use of resources and new bottle washers that allow less water and chemical use. Sidel has also set up a pilot-scale PET recycling line in Octeville, France, to support customers with the transition from PET to rPET (recycled PET).

In 2022, we expect sales to remain unchanged, despite a large backlog, due to the shortage of electronic components.

Growth, sustainability and innovation – remain in focus for 2022

Several of our customers are struggling with subdued growth and profitability due to changing consumer behaviour, combined with the inflationary effects of the pandemic. Our commitment is to support our customers to introduce more innovative products at competitive prices – to ultimately generate growth for them. Indeed, innovation is the foundation for our long-term success in our industries. We are ramping up our investment levels as we are launching significant investments in sustainability, digitalisation, and stronger local presence in certain markets to provide even greater levels of service.

The consequences of lack of semi-conductors, higher raw material prices and inflation makes it impossible to fully determine but the impact on customer demand and supply chains will be material.

We expect that the world will have to live with the effects of the pandemic during 2022 and forecast that sales will see mid-single-digit growth while operating profit will decline somewhat as we have not yet fully compensated for the material cost inflation.

The theme of this year's Annual Report is Sustainable Food Systems. Creating sustainable food systems has long been our mission and we offer some of the most sustainable processing and packaging solutions on the market – in terms of climate impact, biodiversity, circularity and food waste – and we are committed to making our offerings even more sustainable. We also enable farmers to do more with less and reduce the environmental impact of every litre of milk they produce.

Lars Renström

"We are ramping up our investment levels as we are launching significant investments in sustainability, digitalisation, and stronger local presence in certain markets to provide even greater levels of service."

A supervisory board to all Tetra Laval units

The three Tetra Laval industry groups have operations and representatives in more than 170 countries. It is a decentralised organisation but with clear rules and guidelines. The framework for Corporate Governance establishes the Board's requirements and expectations for the industry groups, and communicates governance guidelines throughout the organisation.

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

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

The Tetra Laval Group Board schedules four regular meetings each year and when circumstances require, additional meetings are held.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01. Lars Renström

Chairman of the Board since 10 June 2016.

Lars Renström joined the Board as non-executive director in 2013. Lars Renström was President and CEO of the Alfa Laval Group 2004 – 2016. He has previously held positions as President and CEO of Seco Tools, President and head of Atlas Copco's Rock Drilling Tools division and head of Ericsson's Telecom Cables Division. He is currently also Chairman of the Board of Assa Abloy AB.

02. Niels Björn Christiansen

A non-executive director since June 2021

Niels B. Christiansen is Chief Executive Officer of the LEGO Group. He joined the company in October 2017.

As CEO, Niels B. Christiansen manages the executive leadership team in the Groups mission to bring LEGO® play to children all over the world. During his tenure, the company has expanded retail stores across the world, launched the first sustainably sourced LEGO elements, created innovative play experiences combining the physical brick and digital experiences, and maintained its ranking as a highly reputable and loved brand globally.

Niels B. Christiansen is Chairman of the Board of Demant A/S.

He holds a Master of Science degree in Engineering from the Technical University of Denmark (DTU) and holds an MBA from INSEAD in France. His international experience from the management of major, global, industrial hi-tech corporations is comprehensive. He has extensive board experience from listed companies as well as comprehensive insight into industrial policy.

03. Paul Conway

A non-executive director since 2014.

Paul Conway OBE. Former Vice Chairman of Cargill Inc and Chairman of Carval Investors Llc.

Vice Chairman of the US-China Business Council and board member of the US-India business council. In his 36 year Cargill career, Paul Conway worked mainly in Food & Agriculture supply chain businesses in East & West Europe, Asia and the USA. He had Executive supervision of Asia-Pacific as well as Strategy & Capital allocation and approval. Paul Conway has been a frequent external speaker on Food Security & Sustainability issues worldwide.

04. Nigel Higgins

A non-executive director since 1st August 2016.

Nigel Higgins is Chairman of Barclays plc. Prior to that he was Deputy Chairman of Rothschild & Co having been Managing Partner and Chairman of the Executive Committee since 2010. He worked at Rothschild upon graduating from Oxford University in 1982. He was a member of the Advisory Board for the Commercial Directorate of the UK's National Health Service from 2002 – 2007. He is a member of the Trilateral Commission. He is Chairman of Sadler's Wells, the world's No. 1 venue dedicated to international dance.

05. Ola Källenius

A non-executive director since 1st June 2016.

Ola Källenius has been Chairman of the Board of Management of Daimler AG since 22 May 2019. He is also Chairman of the Board of Management of Mercedes-Benz AG and Chairman of the Supervisory Board of Daimler Truck AG. He has been a Member of the Board of Management of Daimler AG since 1 January 2015.

In his prior position he was leading Group Research & Mercedes-Benz Cars Development and until 1 January 2017 Marketing & Sales. Before his assignment in Marketing & Sales, he was the CEO of the performance and sports car division Mercedes-AMG GmbH for three years after having led Mercedes-Benz U.S. International, Inc. and the Mercedes-Benz production plant in Alabama in 2009. From 2005 – 2009, Ola Källenius was the Managing Director of Mercedes-Benz High Performance Engines Ltd. in Brixworth, UK - Daimler's Formula 1 powertrain operation. He assumed this position after his role as Executive Director of Operations for McLaren Automotive Ltd. and after holding several Management positions within the Procurement and Controlling organisation of Mercedes-Benz Cars.

06. Jörn Rausing

A non-executive director of the Tetra Laval Group Board since 1991. He was an alternate director of the Tetra Pak Group Board 1985 – 1991.

Jörn Rausing is also a board member of Alfa Laval AB, DeLaval Holding AB and of Ocado PLC. He is the Tetra Laval Group's head of Mergers and Acquisitions. He is also the chairman of the Remuneration Committee of the Tetra Laval Group Board.

07. Finn Rausing

A non-executive director of the Tetra Pak Group Board from 1985 to 1989 and of the Tetra Laval Group Board from 1995.

Finn Rausing, who is the chairman of the Audit Committee of the Tetra Laval Group Board, is also a board member of Alfa Laval AB, DeLaval Holding AB and Excillum AB. Mr. Rausing is also chairman of the Stockholm Institute of Transition Economics (SITE).

08. Kirsten Rausing

An alternate director since 1985 and a non-executive director since 1991.

Kirsten Rausing is a Member of the Jockey Club and a Director of the British Bloodstock Agency. She is the Chairman of the International Thoroughbred Breeders' Federation, a world-wide organisation with some 40 members states. In addition, Ms. Rausing is the Hon. President of the European Federation of Thoroughbred Breeders' Associations (Paris), as well as a past Chairman of the Thoroughbred Breeders Association of Great Britain. She was a Trustee of the newly formed Racing Foundation (UK) from 2012 to 2017; this Foundation handles the proceeds of the British Government's sale of the Totalisator Board.

09. Dr. Mohsen M. Sohi

A non-executive director since June 2021

Dr. Mohsen M. Sohi is the Chief Executive Officer of Freudenberg SE, Weinheim, Germany, since 2012. From July 2010 to June 2012, Dr. Sohi served as Managing Partner of Freudenberg & Co. From March 2003 through June 2010, he served as President and Chief Executive Officer of Freudenberg-NOK in Plymouth, USA.

From January 2001 to March 2003, Dr. Sohi was with NCR Corporation, a leading global technology company and managed its global Store Automation business. Prior to NCR, Dr. Sohi was with Honeywell International Inc. and its pre-merger constituent, Allied Signal, Inc. for 14 years, serving in positions of increasing responsibility in the aerospace, automotive, commercial vehicle, and engineered materials segments. His last position with Honeywell was President of Honeywell Electronic Materials. Dr. Sohi previously served as a director of Aviat Networks, Inc. (formerly known as Harris Stratex Networks, Inc.) from 2007 until January 2015 and Hayes Lemmerz International from 2004 until 2009.

He is Chairman of the Board of Directors of STERIS since 2018, member of the Supervisory Board of ZF Friedrichshafen AG and Chairman of Freudenberg Foundation.

Protects what's good

Tetra Pak is the world leader in food processing and packaging solutions. For 70 years, we have worked with customers around the globe to help make food safe and available, everywhere.

We continuously innovate to deliver on our promise – PROTECTS WHAT'S GOOD™ – to our customers, consumers, partners and people all over the world. To us, our promise is a commitment to protect food, people and the planet.

Our approach

Our commitment means protecting food, through our processing, packaging and service activities. It means protecting people both inside and outside our organisation, as well as protecting the future of our planet, our customers and our company.

We work together with our customers to provide food and beverage processing and packaging solutions that reach all corners of the world. We're passionate about delivering food of the highest quality and safety to people, wherever and whenever it's needed.

Long history of working with sustainability

Tetra Pak was founded by Dr. Ruben Rausing on the idea that a package should save more than it costs. Armed with this mindset today, our ambition is that our commitments, solutions and partnerships help protect our planet by leaving a positive impact on our climate and resources.

We are committed to reduce the environmental footprint of our products and services, and consistently pursue and initiate collective actions that will help create a sustainable tomorrow without compromising food safety or quality.

Products & solutions

Our customers come from across the food industry, providing consumers with a broad range of dairy products and dairy alternatives, beverages, prepared foods, cheeses, ice creams, wines, spirits and powdered products.

Tetra Pak is uniquely equipped to provide solutions that meet our customers' entire needs. We provide solutions for processing, packaging and distributing a wide range of food products. We are experts in minimising raw material and energy consumption during manufacturing and distribution – to maximise operational and environmental performance.

Our portfolio is broad, and includes:

- Carton packages
- Processing equipment
- Packaging equipment
- Distribution equipment
- Automation solutions
- Services

NET SALES 2021

€11.1

BILLION

SALES IN

>160

COUNTRIES

NUMBER OF EMPLOYEES DECEMBER 2021

25,147

CUSTOMER INNOVATION CENTRES

6

TECHNICAL TRAINING CENTRES

8

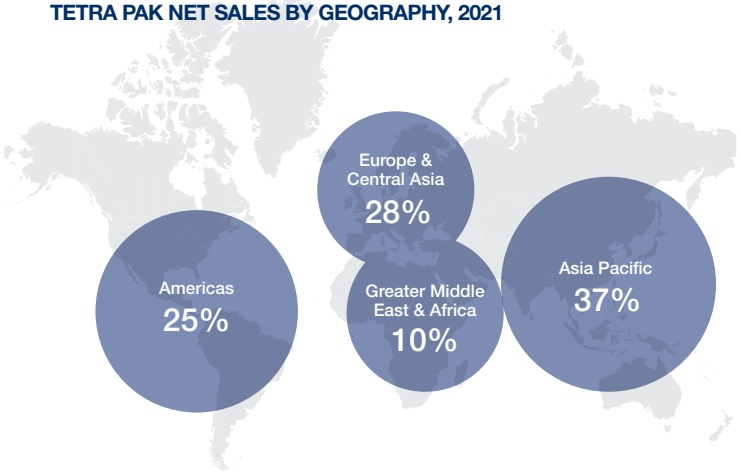
RESEARCH AND DEVELOPMENT CENTRES

6

PRODUCTION PLANTS

54 [7)]

TETRA PAK NET SALES BY GEOGRAPHY, 2021



TETRA PAK PACKAGING MATERIAL NET SALES PER CATEGORY, 2021

Liquid Dairy Products 58.1%	Plant-based products 8.8%
Juice & Nectar 14.0%	Food 6.4%
Still Drinks 9.6%	Wine & Spirits 2.0%

Others: 1.1%

Market

In 2021, the speed of change accelerated with sustainability, health, convenience and premiumisation increasing in importance in Tetra Pak's food and beverage categories:

DAIRY PRODUCTS

White milk continues to account for the largest proportion of total consumption as it has remained a nutritious food staple during the pandemic. Milk continued to grow in 2021 and is expected to grow by 1.9 per cent around the world until 2024, except in Europe and North America, which are expected to see declines.

Consumers spending more time at home during the COVID-19 pandemic increased cheese sales by 36 per cent. Cheese is also perceived as being healthy and nutritious, as well as a useful snack and ingredient.

Baby and Toddlers Dairy drinks increased with a Compound Annual Growth Rate (CAGR) of 4.6 per cent with parents concerned for their kids' health. The food supplements nutrition category reached 10.6 billion litres in 2021 with a 11.2 per cent growth.

JUICE, NECTARS AND FRUIT FLAVOURED STILL DRINKS

Despite the decline in previous years, juice and nectar consumption was flat in 2021 with a 0.6 per cent increase compared with 2020. The category benefitted from people spending more time away from home and innovative new product launches that drew on sustainability and functional juice drinks.

ICE CREAM

Ice cream is growing as innovation keeps producers ahead of commoditisation. Consumers are looking for indulgence and convenience, while balancing health and ethical solutions.

PLANT-BASED PRODUCTS

Ready to drink plant-based beverage consumption globally reached 12.7 billion litres in 2021 with an annual growth of +2.0 per cent (18-21 CAGR). Global growth is driven by the Rice Nuts Grains Seeds segment, which accounts for 59 per cent of total consumption. Consumption also is accelerated by a growing interest in flexitarian diets and plant-based proteins, as well as ethical and sustainability concerns. Plant-based beverages are forecast to grow at a CAGR of +8.5 per cent until 2024.

FOOD

Growth in packaged food categories has been driven by the pandemic as more people have cooked at home. The concept of packaged food as 'kitchen-helpers' is growing.

POWDER

Demand for dairy based powders continues to grow. There are significant market opportunities in the category driven by greater nutritional awareness in developing countries and the protein trend. Infant formula remains the highest growth area.

OTHER BEVERAGES

Packed water continued its positive trend in 2021, with an annual growth of 4.4 per cent. The water category is driven by sustainability and functional claims, as well as other beverages such as ready-to-drink tea and coffee, sport and energy drinks.

Technology

Tackling tethered cap challenges head on

Tetra Pak is working to develop tethered caps to ensure its customers comply with the EU Single Use Plastics (SUP) Directive by 2024. However, tethered cap solutions, which will help reduce litter as the cap stays attached to the package, are a challenge due to the scale of change they require throughout our value chain while minimising impact on customers operations.

We are proactively working to limit disruption on more than 1,000 packaging lines by maintaining cap dimensions, and weights and interfaces, while delivering new functionality at the usual standard of performance and quality. At the same time, we are moving towards more recyclable and renewable materials for our caps, which adds a further layer of complexity to the development process.

Ultrasonic sealing allows aseptic sustainable packaging

In new sustainable packaging material, the aluminium barrier is replaced with either a polymer or fibre barrier, which facilitates recycling and reduces the carbon footprint of our Tetra Brik® Aseptic packages. However, an alternative to Induction Sealing was required to seal the more sustainable packaging material.

Tetra Pak has successfully adapted Ultrasonic Sealing technology, which can be used to seal both non-foil and foil packaging, to the aseptic environment. To speed up the learning curve and boost the introduction and deployment of the technology, Tetra Pak has partnered a large ultrasonic company and are transferring expertise to key people

Sidel

High-performance packaging production solutions

Sidel helps package beverages, food, home and personal care products in PET, can, glass and other materials. We are passionate about providing complete solutions that fulfil customer needs and boost the performance of their lines, products and businesses.

Sidel is a leading global provider of packaging solutions for beverage, food, home and personal care products in PET, can, glass and other materials. Leveraging over 170 years of proven experience, we help shape the factory of tomorrow, through advanced systems and services, line engineering, eco-solutions, and other innovations.

Sidel has over 40,000 machines installed in more than 190 countries, and over 5,000 employees worldwide who are passionate about providing equipment and service solutions that fulfil our customer's needs. As a partner, we apply strong technical knowledge, packaging expertise and smart data analytics to optimise performance.

Our strategy

Our strategy is customer driven, with a complete and innovative portfolio and high-performance orientation. Our aim is always to deliver the value our customers need to reach their goals. To do that, we must first understand each challenge they face in their production. We are known in the industry as a knowledgeable partner – addressing market needs and individual customer goals with our innovation capabilities and longstanding expertise.

Sidel's 'Performance through Understanding' mindset draws on this understanding. We offer complete and innovative customised packaging solutions with equipment that is easy to service, focuses on digitalisation and sustainability, and lowers our customers' Total Cost of Ownership. Our packaging is designed to contribute to a better environment and our complete solutions minimise water, energy and material consumption. Our approach to improving costs and increasing competitiveness never compromises on food safety and security, giving our customers and consumers peace of mind.

Our solutions

Sidel serves brand owners, manufacturers, co-packers, and other customers active across beverage businesses as well as in the food and Home and Personal Care (HPC) industries. We are a leading provider of blowing, filling, labelling, material-handling, end-of-line and engineering solutions for multiple applications. We deliver equipment and services for primary, secondary and tertiary packaging, and we also offer processing equipment, supplied by Tetra Pak, as well as automated warehousing solutions with our partner Elettric80 that enable customers to work end-to-end with one partner. We service both Sidel and non-Sidel equipment, with the latter served by Competek, part of Sidel Group. Gentlebrand provides branding and design services as packaging tailors. And finally, Novembal, also part of Sidel Group, boasts over 60 years as the specialist in plastic cap design and injection.

Our customers

We support both non-alcoholic beverage producers (water, carbonated soft drinks, liquid dairy products, juices, nectars, isotonic, soft drinks and teas) and alcoholic beverage producers (beer, wine and spirits), as well as food (edible oils, sauces & dressings, pet-food and more) and HPC producers across diverse categories.

NET SALES 2021

€1.4

BILLION

SALES IN

>90

COUNTRIES

NUMBER OF EMPLOYEES DECEMBER 2021

5,119

TECHNICAL TRAINING CENTRES

14

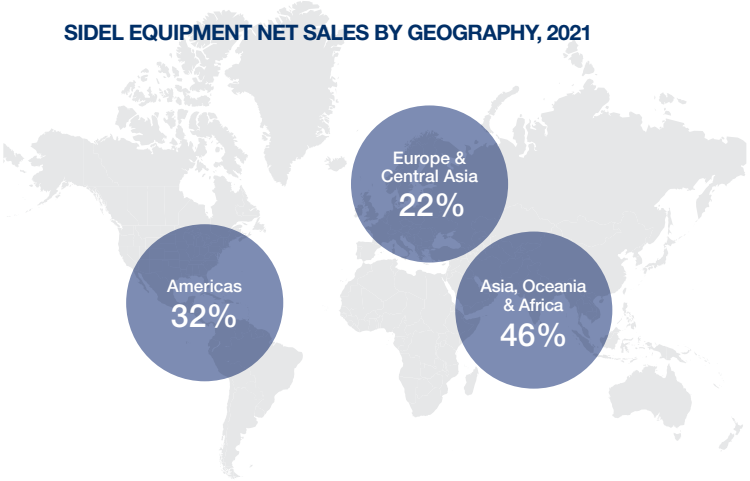
RESEARCH AND DEVELOPMENT CENTRES

10

PRODUCTION PLANTS

17

SIDEL EQUIPMENT NET SALES BY GEOGRAPHY, 2021



SIDEL EQUIPMENT NET SALES BY MARKET SEGMENT, 2021

Water 21.4%	Juices, Nectars, Soft Drinks, Isotonics & Teas 19.3%
Carbonated Soft Drinks 13.8%	Liquid Dairy Products 8.7%
Beer, Wine & Spirits 22.3%	Food, Home and Personal Care 13.0%

Others 1.5%

Market

In 2021 Beverages, Food, Home and Personal Cares industries kept innovating through new thinking around in-home drinking and increased sustainability and health concerns. In 2021, Beverages, Food, Home and Personal Care market segment have seen 3,893 billion units of consumer-packaged goods sold. Global data analysts forecast that approximately 423 billion additional units will be sold by 2025 (2.6 per cent compound annual growth rate – CAGR – from 2021 to 2025). Source: GlobalData.

WATER

Increasing health trends and sugar taxes boost overall demand. Growth is mostly expected from Asia, but also USA looking for better-for-you alternative to CSDs and juices, notably through flavored waters. Water brands are investing in sustainability, driving packaging innovation. Kids water, premium brands, home delivery and fountains are other growth drivers. In 2021, the total market was 347 billion units, with projection to 389 billion units in 2025.

CSD – CARBONATED SOFT DRINKS

Despite concerns over high sugar and caffeine content, the industry is expected to get volume growth in Africa, Asia, and Eastern Europe. The market is tied to increasing demand for product linked to health: Premiumisation, low-calorie variants, and smaller optimised pack formats (more convenient for 'on-the-go' consumption) are driving product innovation. Furthermore, COVID-19 has reinforced the focus on sustainability, therefore requiring producers to take steps to lower their environmental impact through sustainable packaging solutions. In 2021, 274 billion units were sold with a projection of 286 billion units in 2025.

BEER, WINE AND SPIRITS

Expanding health-conscious and eco-responsibility trend is driving the industry to be very innovative through premiumisation, more low/no-alcohol variants products, new flavor options (notably local flavors in Asia) and broadened sustainability claims (beyond recyclable packaging). Hard/Spike seltzers experience growing popularity. In 2021, the total market was 463 with projection to increase to 518 billion units in 2025.

JUICE, NECTAR, SOFT DRINKS, ISOTONIC AND TEA

In response to health-conscious consumers concerns, 100 per cent juices, cold-pressed juices are expected to grow faster than still drinks. Energy Drinks represent best performing beverages category, driven by Asia, which is also the market leader for iced/Ready to Drink Tea. In 2021, the total market was 367 billion units, with projection of an increase to 397 billion units in 2025.

LIQUID DAIRY PRODUCTS – LDP

The LDP market is very dynamic, mainly in Asia. Significant growth is expected in Drinking Yogurt in China, as well as Milk in India. Product innovation is driven by increased demand for plant-based drinks (i.e. almond milk, soy milk etc.), appealing consumers concerned about their health and the environment. Diversification with notably premium, reduced sugar, flavored or focus on health benefits (e.g. boost immunity) is a key growth driver for producers. In 2021, the total market was 411 billion units, with projection to increase to 497 billion units in 2025.

FOOD, HOME AND PERSONAL CARE – FHPC

In this market, the increasing adoption of PET – especially in food, is driven by its transparency, branding opportunities (design freedom), cost efficiency and 'green potential'. Thus, more and more regulations will require producers to reduce their carbon footprint by integrating recycled material and light weighting their containers. With the rise of e-commerce, digital & Internet of Things, the packaging is becoming more and more a vector of communication with the consumers for the brand owners. In 2021, the total market was 2,031 billion units, with projection to increase to 2,229 billion units in 2025.

Technology

Aseptic Predis X4

Consumer needs are evolving with a strong focus on health and nutrition, taste, convenience and lifestyle, environmental awareness and ethical expectations. In this consumption context, sensitive drinks and products require sensitive care – and Sidel has always been agile with over 45 years of continuous innovation and aseptic experience to adapt to every market need and support customer success.

Sidel has now introduced Aseptic Predis X4, its new integrated blow-fill-cap solution with Predis™ dry preform sterilisation. Built on the proven and current aseptic packaging machine generation, it is safe and simple while offering an unprecedent user-experience supported by new equipment design and reinforced digitalisation.

Aseptic Predis X4 sets state of the art for aseptic technology, with the smallest sterile zone ever and an optimised process cycle. It draws

on proven aseptic dry preform sterilisation and Sidel's leading aseptic expertise. This is the easiest aseptic technology to use and maintain while offering new opportunities to monitor performance through digitalisation. Based on the current champion of aseptic production flexibility, its new features offer even more variation for products and bottles and faster changeover times. It raises the bar in terms of the efficient use of resources for aseptic bottling, which lowers the CO_2 footprint and total cost of ownership (TCO).

DeLaval

We live milk

DeLaval is a market leader and trusted partner for thousands of farmers around the globe – providing integrated milking solutions that are designed to improve dairy production, as well as animal welfare and their overall quality of life.

Strategy

At DeLaval, our vision to make sustainable food production possible is at the core of everything we do. We pride ourselves on our ability to provide dairy farmers around the world with innovative solutions to contribute to a successful dairy farming business.

We are continuing our work on sustainability through our three pillars – Environment, Food Safety & Animal Welfare and Social & Economic. We do this both within our company and how we benefit our customers.

Products and solutions

As a company built on innovation, we constantly work to find ways of helping our customers, dairy farmers, do more with less by providing world-leading milking equipment and solutions. DeLaval offers highly efficient system solutions for milking as well as farm and herd management, animal traffic control, feeding, cooling and manure handling.

DeLaval customers can also choose from a wide range of services and consumables, including liners and tubes, farm supplies and original parts to ensure milk quality and animal health. By providing better conditions for animals, farmers can improve animal health and longevity while at the same time maintain or improve farm profitability. A healthy animal provides more milk, at a better quality and for longer.

Our customers

DeLaval's customers range from family farms to enterprise farms with thousands of cows. Regardless of size, we're there to help every step of the way.

Every time we help a farmer find a way to produce more milk from the same herd, we make food production more sustainable. This might involve introducing a new working method on the farm, a new parlour, improved hygiene, more data to make better decisions, and the promotion of healthier cows to increase their milking lifetime.

NET SALES 2021

€1.2

BILLION

SALES IN

>100

COUNTRIES

NUMBER OF EMPLOYEES DECEMBER 2021

4,746

TECHNICAL TRAINING CENTRES

6

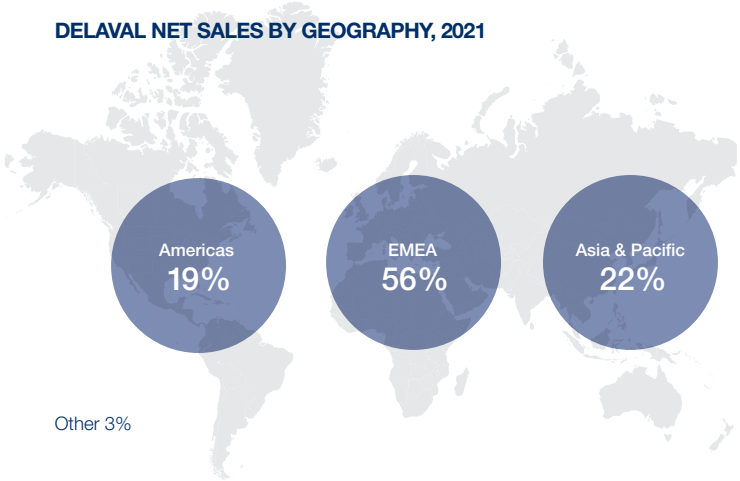
RESEARCH AND DEVELOPMENT CENTRES

7

PRODUCTION PLANTS

14

DELAVAL NET SALES BY GEOGRAPHY, 2021



Other 3%

DELAVAL NET SALES BY PRODUCT SECTOR, 2021

Service and original parts 18%	Milking 39%
Farm supplies 16%	Hygiene 27%

Market

The dairy industry is shaped by global trends, which create both opportunities and challenges for DeLaval's market. The current major trends include:

GROWING NEED FOR DAIRY

Long-term demand for dairy products is expected to continue to grow by 1.9 per cent annually between 2020 and 2024, driven by the growing global population, urbanisation, increasing incomes and dietary changes.

CHANGING CONSUMER BEHAVIOUR

In the US and Europe, DeLaval's main markets, consumer demand for greater animal welfare and transparency require farmers to invest in technical solutions. The dairy alternatives market will continue to grow but is offset by growing demand for milk in emerging markets.

INCREASING MILK PRODUCTION

Global milk production is expected to annually grow by an average of 1.7 per cent between 2020 and 2024. The main drivers will be cow yield increases, and more efficient farm management enabled by new digital tools and services for farmers.

FARM CONSOLIDATION

The long-standing trend of consolidating milk production, which is giving rise to large farms, will continue in the foreseeable future. This will create business opportunities for DeLaval and shape how it interacts with customers.

CHALLENGES FACING THE DAIRY INDUSTRY

Farmers will continue to be affected by the increasing cost of farm inputs into 2022, particularly feed and labour. Environmental demands and legislation will continue to put pressure on farmers, while trade uncertainties remain.

Technology

Digital Services drives digital offerings

DeLaval's transition to offer more digital services is being led by a dedicated Digital Services with around 100 specialists. By offering further digitalisation, automation and related support services, DeLaval can help farmers and dealers to optimise and run more sustainable and profitable operations.

The DeLaval Digital Services is made up of five smaller areas:

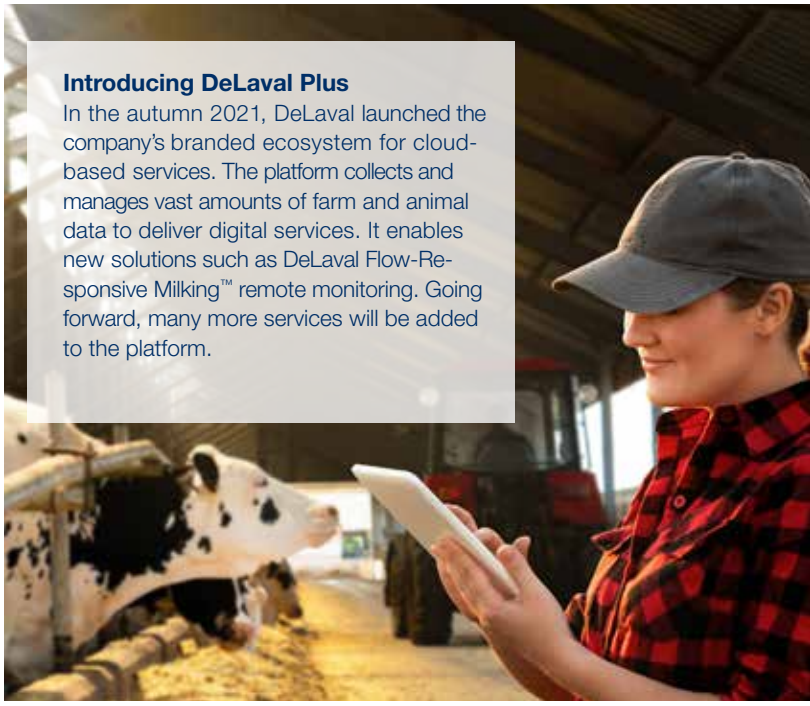
Commercial offering – identifies customer value and how to take services to market together with the sales teams.

Product management – product managers with specialist expertise in e.g., animal or equipment services.

Architecture management – ensures consistent architecture from cloud to farm to avoid poor internet from temporarily preventing essential operations.

User experience (UX) – leads state of the art UX e.g., by using feedback directly from farmers through video interviews and online surveys.

R&D – multiple highly competent R&D software teams.



Introducing DeLaval Plus

In the autumn 2021, DeLaval launched the company's branded ecosystem for cloud-based services. The platform collects and manages vast amounts of farm and animal data to deliver digital services. It enables new solutions such as DeLaval Flow-Responsive Milking™ remote monitoring. Going forward, many more services will be added to the platform.

TETRA PAK

STAYING SAFE IS THE NEW HEALTHY

Health has become much more important during the pandemic and is driving shifts in consumer mindset and behaviour. While health and wellness have been long-standing trends in food, 2021 has brought a new focus on being healthy. Globally, 62 per cent of consumers feel there is a real threat to their own and their family's physical and mental health in the next 12 months. The focus of being healthy now is about staying safe during the pandemic and we're seeing shifts in consumer behaviour that reflect this need to be and stay well. 53 per cent of consumers globally are increasingly choosing products that support their immune system and 75 per cent prefer food and beverages over supplements as immunity boosting solutions.

TETRA PAK

RESPONSIBLE CONSUMPTION – FOR SOCIETY AND THE PLANET

Responsible consumption has become a powerful driving force behind consumer aspirations and behaviour. Sustainability and social responsibility remain important drivers of consumer behaviour with demands for environment-positive and zero-waste solutions greater than ever – as is a new focus on people and social justice. Globally, 57 per cent of consumers are willing to change their purchasing habits to help reduce negative environmental impact. In addition, 72 per cent of consumers globally agree that 'individuals like me' need to act now, or they will fail future generations. Consumers are looking to brands that can demonstrate they are good to their own people, their communities as well as to the environment.

SIDEL

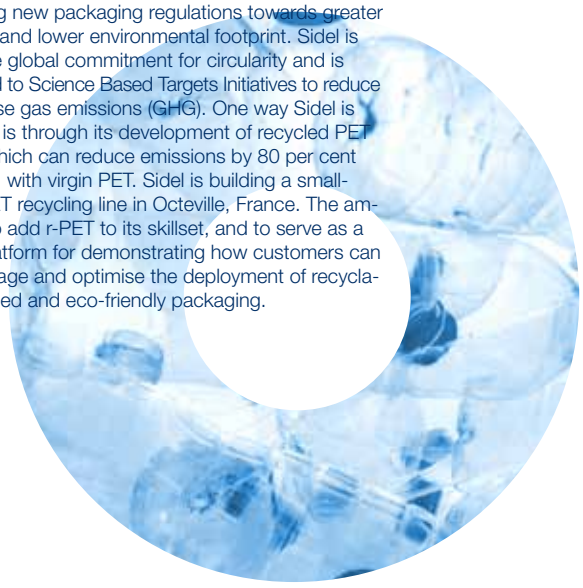
INCREASED DIGITALISATION LEADS TO IMPROVED SUSTAINABILITY

Sidel offers smart digital solutions to help customers maintain the value of their packaging line and minimise disruptions to their operations. The Evo-ON® software suite provides greater line knowledge with extended data analytics that leverages the cloud computing power of machine learning and Artificial Intelligence. This intelligent suite continuously measures and analyses production line data, draws conclusions and offers recommendations to Sidel's customers to identify the best way forward and achieve optimal performance. The recently developed Evo-ON® Eco app identifies variations at an early stage with the aim of informing and driving lower emissions and promoting energy efficiency. It analyses line energy consumption to give the customer actionable solutions to tackle any equipment overconsumption by spotting inefficiencies so that corrective actions can be promptly taken.

SIDEL

SIDEL INVESTS IN R-PET FOR CIRCULARITY AND LOWER GREENHOUSE GAS EMISSIONS

Sustainability is increasingly top of mind among both customers and authorities. The latter is increasingly developing new packaging regulations towards greater circularity and lower environmental footprint. Sidel is part of the global commitment for circularity and is committed to Science Based Targets Initiatives to reduce greenhouse gas emissions (GHG). One way Sidel is doing this is through its development of recycled PET (r-PET), which can reduce emissions by 80 per cent compared with virgin PET. Sidel is building a small-scale r-PET recycling line in Octeville, France. The ambition is to add r-PET to its skillset, and to serve as a testing platform for demonstrating how customers can best leverage and optimise the deployment of recyclable, recycled and eco-friendly packaging.



DELAVAL

TAKING ACTION ON SUSTAINABILITY AT DELAVAL

Sustainability related topics represent some of the greatest challenges of our time. DeLaval's greatest opportunities to contribute towards a more sustainable world are related to its products and services, which help farmers to mitigate their impacts. The company focuses on the environmental efficiency and carbon footprint of its products, Environment, Food Safety & Animal Welfare and Social & Economic, through a holistic approach to sustainability.

It also works with sustainability throughout its global supply chain and seeks to minimise the impact of its own operations. In 2021, energy consumption was reduced by 8 per cent, despite large production increase water consumption has only gone up 1 per cent and waste was the same as in 2020.

DELAVAL

MORE SUSTAINABLE DAIRY FARMS THROUGH AUTOMATION AND DATA

Automation and digitalisation are becoming increasingly important where new technology and data offer many opportunities to run more sustainable dairy farms. With the support of technology and sensors from DeLaval, milk producers can measure different parameters that provide insight into both animal well-being and milk quality.

This insight lays the foundation for good animal health, high milk production, optimised feeding, good reproduction and cow longevity. In short – increased automation and digitalisation increase dairy production and sustainability by helping dairy farmers to do more with less.

Driving business continuity and growth in an exceptionally challenging 2021

Despite tough operating conditions during 2021, we continued to meet customer demand, achieving a top-line growth of 4.1 per cent. With net sales of €11.1 billion.

Global markets and supply chains experienced significant disruption in 2021, and inflation and logistical challenges impacted our bottom line. Key supply shortages such as for semiconductors and paperboard also affected our business, requiring us to be far more agile and dynamic to address customer demand.

Throughout the pandemic, we continued to prioritise the health and well-being of our employees, while making sure we maintained the uninterrupted supply of our packaging, processing and service solutions to our customers. Overall, we didn't experience any significant negative customer impact due to the pandemic but rather saw a growth in many markets, particularly in China, South Asia and the US.

We also helped customers respond to long-term changes in consumer behaviour as a result of the pandemic, such as shifts towards home consumption and family packs and a greater interest in healthy products.

Raising the bar on sustainability

Our processing and packaging solutions are increasingly adopted by food and beverage brands for the environmental benefits they offer – in terms of climate impact, biodiversity, circularity and food waste – and we constantly strive to optimise our offerings further.

Our packages are today made from around 70 per cent renewable materials, which means a lower climate impact compared with other packaging solutions[8], and 100 per cent of our paperboard comes from forests certified to Forest Stewardship Council™ (FSC™) standards and other controlled sources, which indicates responsible sourcing. Our processing and packaging solutions are helping reduce food loss and waste by avoiding spoilage and extending the shelf life of food products.

Together with our partners, we continue to drive recycling and circularity through a range of activities across the recycling value chain in markets around the world. For example, in 2021, we co-invested €29.1 million with Stora Enso to create a complete recycling solution in Poland, with additional recycling investments in markets such as Turkey, Saudi Arabia and Australia, enabling global carton packaging recycling to exceed fifty billion a year.

We reduced our 2020 value chain greenhouse gas emissions (GHG) by 19 per cent compared to our 2010 baseline. This included a 70 per cent emissions reduction in our own operations, marking an important milestone in our commitment to achieve net zero GHG emissions in our operations by 2030 with the same ambition across the value chain by 2050.

Technological development and digitalisation continue

To improve the availability of 'smart' packaging for the food and beverage industry, we installed a new full-colour, full-width digital printer in the US. In 2021, we delivered over 1.2 billion connected packages with unique QR codes to enable traceability and unique consumer interactions. Other innovations include the world's fastest aseptic carton filling machine, that can produce up to 40,000 packages per hour, and we continued investments in quality by further improving the aseptic performance of our machines.

Digitalisation continues to be a key business enabler.

The transformation of our organisation in 2022

This year marks the 70th anniversary of our first packaging machine delivery. Since 1952, we have been at the forefront of shaping a more sustainable, reliable and healthy global food system. With our pioneering technology

"Our processing and packaging solutions are increasingly adopted by food and beverage brands for the environmental benefits they offer – in terms of climate impact, biodiversity, circularity and food waste – and we constantly strive to optimise our offerings further."

and solutions, we have played a key role in reducing food waste while making more food accessible to billions of people around the world, without the need for refrigeration or preservatives.

The pandemic has proved our resilience as a company, but also highlighted how we can become an even more dynamic, productive and capable company. We are now laying the foundations for the next chapter of the Tetra Pak story.

In 2022, we expect to see good top-line growth across all our businesses, supported by visible improvements in priority areas such as quality and sustainability. We will continue to strive to exceed our customer needs; all while staying true 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. Not just for the year but for the next 70 years and beyond.

Adolfo Orive

"The pandemic has proved our resilience as a company, but also highlighted how we can become an even more dynamic, productive and capable company. We are now laying the foundations for the next chapter of the Tetra Pak story."

Adolfo Orive
President & CEO

Tatiana Liceti
Executive Vice President
Market Operations

Ola Elmqvist
Executive Vice President
Packaging Solutions

Laurence Mott
Executive Vice President
Development & Technology

Bruce Burrows
Executive Vice President
Finance & Supplier Management

Lars Holmquist
Executive Vice President
Sustainability & Communications

Charles Brand
Executive Vice President
Processing Solutions & Equipment

Roberto Franchitti
Executive Vice President
Services

Phil Read
Executive Vice President
Human Resources & Transformation

Sébastien Thierry
Executive Vice President
Legal Affairs and General Counsel

Helping build more resilient and sustainable food systems

Everyone, everywhere deserves access to safe, nutritious food; but today, millions of people live without it. Too much food is lost or wasted, and all too often, food is grown, produced, processed, packaged, distributed and consumed in unsustainable ways. At Tetra Pak, we are committed to play our part in moving the world's food systems forward. With our expertise, technology and partnerships, we believe we can make a difference. After all, it is core to our purpose as we commit to making food safe and available, everywhere; and we promise to protect what's good: protecting food, people and the planet.

As a UN Global Compact advocate and contributor to the Sustainable Development Goals (SDGs), Tetra Pak is committed to the targets of the UN Food Systems Summit, and is actively engaged in the UN Food Systems Summit process both at a global and national level.

"Global food systems have significantly contributed to human development in recent decades, but COVID-19 has highlighted the fragility of our food systems and the need for urgent transformation, if we are to meet the SDGs and the objectives of the Paris Agreement," says Lars Holmquist, Executive Vice President for Sustainability & Communications at Tetra Pak.

There are many challenges for today's global food systems – from malnutrition, a growing global population and climate change, to negative environmental impact and a lack of infrastructure. However, well-designed food processing technologies and packaging solutions can strengthen food supply chains and build resilience in food systems to address these challenges.

"Together with our customers, a key area where we can make a positive contribution is in the reduction of food loss and waste. For instance, some of our new generation best-practice lines can reduce food waste during production by up to 50 per cent, while significantly lowering energy consumption, water usage and emissions," explains Holmquist.

Six opportunities to drive change

"At Tetra Pak, we have tentatively identified six impact opportunities where we believe we can help drive systemic change and support the Food Systems Summit objectives. These areas build on our long-standing global expertise, and will need further research, critical discussion, and active collaboration," says Holmquist.

Food innovation for healthy diets

Global diets need to converge towards locally appropriate versions of a 'human and planetary health diet' that improves health outcomes and reduces the environmental impact of food. In this context, food processing technologies and packaging solutions can enable consumers to access a broader range of healthy products.

School Feeding Programmes

To enable the expansion and secure sustainability of School Feeding Programmes, which today cover 388 million children globally[9], there are four challenges that need to be overcome:

- Sustainable funding mechanisms
- Education about the nutritional benefits of the food provided, such as dairy
- Need for local production and sourcing of safe, nutritious, high-quality foods
- Development of solid data collection and impact evaluation mechanisms

The food processing and packaging industry can help overcome these challenges and support the scaling-up of School Feeding Programmes, improving nutrition and school attendance among kids, while creating a market for local food products.

Minimised food loss and waste

World hunger is on the rise and yet, an estimated one third[10] of all food produced globally is lost or goes to waste. Reducing food loss and waste would mean greater food availability, which would help combat hunger as well as reduce greenhouse gas emissions. This is where food processing and packaging solutions can contribute greatly by (a) Avoiding food loss through strengthened food supply chains and (b) Reducing food waste through advanced processing technologies and packaging solutions, particularly for perishable food.

Sustainable dairy production

Smallholder dairy farmers often do not have the knowledge or the capacity to transition to more sustainable practices. Systematically providing them with the necessary expertise and technology while connecting them to the organised collection infrastructure can significantly improve milk output as well as their livelihoods. As an example, our Dairy Hub model aims to secure a long-term supply of locally produced, quality milk, without raising the costs of collection, especially in emerging economies. It does so by linking smallholder farmers to a dairy processor, with Tetra Pak offering the technology and 'hands-on' practical knowledge and training.

Sustainable food packaging solutions

Food packaging plays a critical role in feeding the world, but it must do so with a reduced impact on our planet. At Tetra Pak, our aim is to deliver the world's most sustainable food package – made solely from responsibly sourced renewable or recycled materials, that is fully recyclable and carbon neutral. In this context, we are investing heavily in the research and development of carton packages that are made with a simplified material structure and increased paper-based content. We recognise that the best way to accelerate innovation is through game changing collaborations, which is why we are partnering not only with industry stakeholders but also research bodies, academia and tech start-ups.

Supply chain transparency and traceability

Driving greater transparency and traceability in the supply chain can enable better decision making and boost food safety and sustainability. To that end we are investigating how digital technologies, such as, analytics and Artificial Intelligence, the Internet of Things, advanced robotics, and digital platforms can enable a sustainable and circular economy and create closed loop recycling systems while enhancing food access and safety.

"Working together with farmers, producers, consumers, governments and other stakeholders, we are refining our thinking, framing our ambitions and creating a roadmap in support of building resilient food systems to achieve the SDGs," concludes Holmquist.

New whole bean food processing solution minimises food waste

Tetra Pak has supported the Taiwanese food and drink producer I-Mei to develop a whole bean food processing solution to minimise food waste. I-Mei has worked to reduce food waste by turning okara – the insoluble pulp that remains after pureed soybeans has been filtered in the production of soy milk and tofu – into a high value ingredient. Fibre-rich okara is used in traditional cuisine in Japan, Korea and China, but is often discarded, which creates a significant disposal challenge for industry players including I-Mei. Tetra Pak has helped I-Mei to develop a processing solution that can capture and incorporate okara into their soy milk drinks, to create a premium, high-fibre product with no added sugar, excellent flavour, and a desirable smooth mouthfeel. Packaged in Tetra Top® Nallo 330 ml and Tetra Rex® 1L packages, wholesome soy milk is a new concept that I-Mei is now raising consumer awareness on.

Tetra Pak helps convert surplus farm produce into a healthy vegetable product

Tetra Pak has helped Matriark Foods in the US to develop a new, healthy, low-sodium vegetable product made from farm waste and surplus produce. The product is distributed to schools, hospitals, food banks and other food service channels. As it is based on vegetable farm surplus and fresh-cut remnants that would otherwise be wasted and sent to landfill, the product also contributes towards a more sustainable food system and reduces climate impact. Matriark Foods worked with River Run Foods, a co-packer that recently began filling Tetra Pak cartons, to develop the recipe. The Tetra Pak Product Development Centre in Lund, Sweden, has helped River Run to develop the necessary processes. Tetra Pak also supported Matriark Foods' package design to clearly communicate the brand's mission, including Tetra Pak and FSC™ logos, to support its sustainability profile.

Installation of digital printer in Denton facility

Tetra Pak has completed the installation of its new full-colour, full-width digital printer at its Denton packaging material converting factory in Texas. Commissioning is ongoing and commercial production is expected in 2022. This marks an important milestone as Tetra Pak continues to drive innovation in the food and beverage industry with digitally printed smart packaging. "This digital printing technology opens new avenues for brands to connect more deeply with consumers while also delivering more customisation and flexibility," says Jeff Fielkow, president and MD of Tetra Pak US and Canada.

Expansion of plant-based coatings for aseptic cartons in North America

As the demand for sustainable packaging continues to grow, Tetra Pak has expanded its production of aseptic cartons made with sugarcane-based polyethylene (PE) coatings at its Denton converting plant in Texas. The cartons incorporating plant-based PE will come with a plant-based cap that is also derived from sugarcane. "As we work towards creating a fully renewable shelf-stable package, plant-based PE gives us one more way to drive innovation and sustainability for our customers," said Jason Pelz, Vice President of Sustainability, Tetra Pak Americas.

Kunshan integrated site inaugurated

Tetra Pak's Kunshan integrated site was inaugurated in November and is the first of its kind in Greater China. The site is a platform for our end-to-end solutions, from innovation incubation at the Product Development Centre, to processing and packaging equipment production, packaging material production and validation, training services and parts supply. "Tetra Pak is the only company capable of providing these kinds of end-to-end solutions and showcases our strength to customers in one location," says Paul Zhu, Greater China Managing Director.

€100 million sustainable solutions investment in European manufacturing

Tetra Pak is expanding its Châteaubriant plant in France, which is dedicated to the design and manufacturing of caps, to support the plant's transition to the production of tethered caps by 2024. As tethered caps help to minimise litter by ensuring the cap remains attached to the package, the investment will ensure that Tetra Pak's customers in Europe will be ready to comply with the Single Use Plastics (SUP) Directive.

Switch to production of paper straws

Tetra Pak launched its first straight paper straw in 2019. The first week of July 2021 marked a major milestone as we pulled the plug on the plastic extrusion lines at the factory in Portugal, signaling the total switch to production of paper straws. Tetra Pak now have a comprehensive portfolio of paper straws that fit the European legislation, with straight, U-shaped and telescopic paper straws. The paper straws are made from FSC™ certified paper and recyclable with the rest of the Tetra Pak® package.

First Tetra Top® MiniV in GMEA launched

Tetra Pak's biggest customer in Morocco, the dairy cooperative COPAG, launched a breakfast drinking yogurt in Tetra Top® miniV 330ml, which is the first of its kind in the Greater Middle East and Africa (GMEA) region. By launching this product in a new shape with a modern design, COPAG has reinforced its market-leading position and aims to associate its brand with innovation and quality to reach a broader range of consumers. This innovative package will also enable COPAG to compete in the smaller size chilled dairy products category, which is currently dominated by high-density polyethylene plastic.

First in North Europe: Fazer Aito launched oat drinks in Tetra Stelo® Aseptic

During the last years the demand for plant-based materials have increased. No longer do consumers demand only climate smart food and beverages – conscious consumers also have the same demands for the packages. The Finnish food company Fazer chose to launch their popular oat drinks in the new Tetra Stelo® Aseptic package, that is made of 87 % plant- based material. The round shaped package was found appealing to the consumers and differentiated Fazer from the competitors in the retail shelves.

Tetra Pak and industry leaders launch first Malaysian Recycling Alliance

Tetra Pak has joined industry leaders including Coca-Cola, Nestlé and Unilever to establish a new Malaysian Recycling Alliance (MAREA). The alliance, which is a voluntary, industry-led group of like-minded companies, aims to improve the collection and recycling of post-consumer packaging, based on the principles of extended producer responsibility.

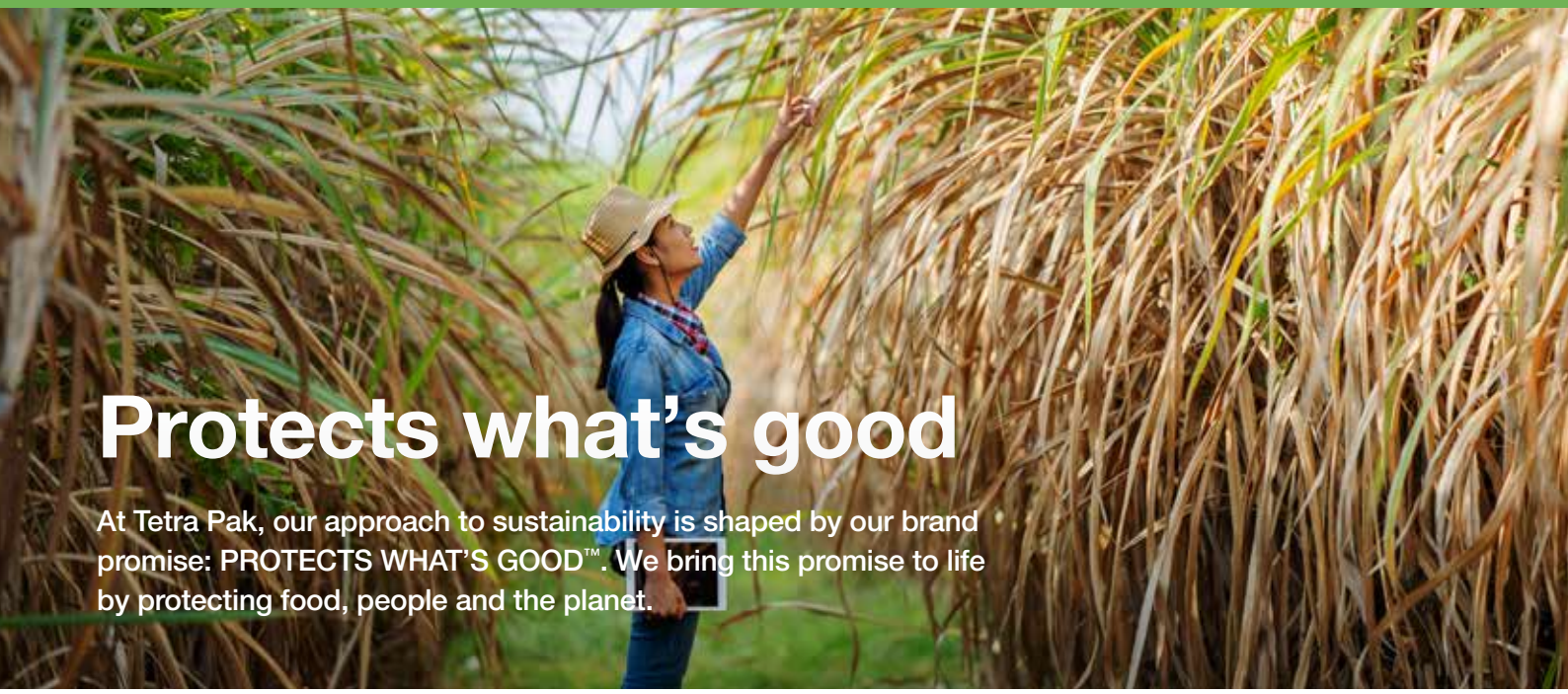
"Through MAREA, we will rethink how we can make the packaging value chain more sustainable," says MAREA Chairman Juan Aranols, who is also CEO of Nestlé Malaysia. "Change cannot be driven by one entity alone and requires proactive collaboration between all actors."

Tetra Pak upgrades its Pinetown factory in South Africa

The US$ 31 million investment to upgrade and increase the production capability of the packaging material factory reinforces Tetra Pak's commitment to the growth and success of the local operation in South Africa. The upgrade will take place over a period of several years, commencing in the first quarter of 2022. The upgrade will increase production capacity and Tetra Pak's ability to serve more customers in the Southern African region at a competitive cost. It will also reduce CO_2 emissions through greater energy and water efficiency.

Turkey's first 'zero waste' recycling plant for carton packages

Tetra Pak Turkey in collaboration with Kahramanmaraş Paper (KMK) has established Turkey's first and only 'zero waste' recycling plant for carton packages. The plant enables the recycling of all components of carton packages, including aluminium and polyethylene, and has an annual capacity of 18 thousand tonnes – equivalent to half a million carton packages every day. The fibres from carton packages are converted into a variety of high-quality, high-strength products, like cardboard boxes, cardboard gussets and gypsum board paper. The mixture of polyethylene and aluminium can be used for a wide range of new products – from pallets to playground equipment and benches.



Protects what's good

At Tetra Pak, our approach to sustainability is shaped by our brand promise: PROTECTS WHAT'S GOOD™. We bring this promise to life by protecting food, people and the planet.

Our approach

As a world-leading food processing and packaging solutions company, we work with customers and suppliers to provide safe, innovative and environmentally sound food processing and packaging that meet the daily needs of hundreds of millions of people in more than 160 countries. Responsible industry leadership and a sustainable approach to business are at the core of our company. We take a value chain approach, continually improve environmental performance and report regularly on our performance.

Our approach to sustainability is focused on three pillars and reflects our purpose as a company – we commit to making food safe and available, everywhere. And we promise to protect what's good: protecting food, people and the planet.

Food – We are committed to help shape a future with secure and sustainable food systems.

People – We strive to create a work environment that is safe, inclusive and fair, and aim to bring about positive social impact along our value chain.

Planet – We develop and offer sustainable and innovative food processing and packaging solutions that help protect our planet's climate, resources and biodiversity.

We are on a journey to develop the world's most sustainable food package – a carton made solely from responsibly sourced renewable or recycled materials, fully recyclable and carbon-neutral – and we work to enable secure and sustainable food systems.

To develop the world's most sustainable food package, the entire value chain is in scope

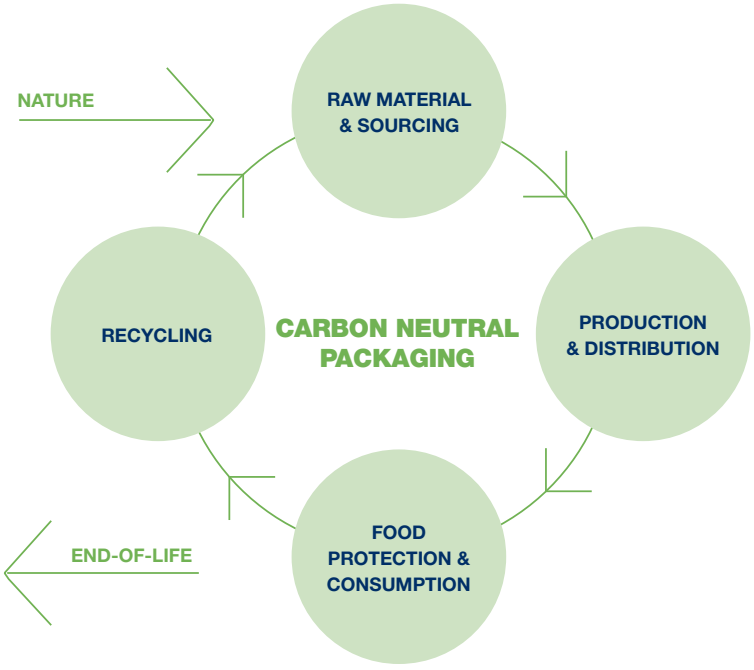
Raw material & sourcing Paper-based carton packages made from fully renewable or recycled materials that are sourced responsibly.

Production & distribution Carbon-neutral production with minimal environmental impact.

Food protection & consumption Packaging that makes food safe and available backed by solutions that ensure traceability and reduce food waste.

Recycling Fully recyclable packaging with supporting collection, sorting and recycling infrastructure everywhere to recycle cartons.

End-of-life Minimising the use of plastics and using materials with a reduced impact on nature.



Net zero journey

Our 2020 value chain GHG emissions were 19 per cent lower than our baseline in 2010, demonstrating that decoupling climate impact and economic growth is possible. We outperformed our 2020 climate goal – to cap our 2020 impact across the value chain at 2010 levels, while expanding the business. As part of this overall decrease, we have reduced our operational footprint by 70 per cent since 2010. In addition, we have committed to achieving net zero GHG emissions in our operations by 2030 and have set a net zero ambition across the value chain by 2050. Our revised SBTi[11]-approved target across all scopes 1, 2 & 3[12] means – amongst other things – reaching 46 per cent GHG reduction across the value chain by 2030, in line with a 1.5°C pathway.

Our leadership in corporate sustainability has been recognised by the global environmental non-profit CDP[13]. In 2021, Tetra Pak secured a place on CDP's prestigious 'A List' for the third year running for climate and forestry – two of the three environmental themes covered by CDP. With this accolade, Tetra Pak cements its position as the only company in the carton packaging sector to be included in the CDP leadership band for six years in a row.

2020 value chain GHG emissions

19% lower

than 2010 baseline

Recycling and circularity – our collaborative approach across the value chain

Together with our partners, we continue to drive recycling and circularity across the recycling value chain in markets around the world. One example is our new partnership with Stora Enso in Poland in 2021 with a total co-investment of €29.1 million for a carton repulping line that will triple the annual recycling capacity of used beverage cartons from 25,000 to 75,000 tonnes in that region. This increased capacity will not only be able to recycle all the cartons used in Poland, but also the neighbouring countries of Hungary, Slovakia and the Czech Republic. Additional recycling investments in markets such as Turkey, Saudi Arabia and Australia will enable global carton packaging recycling to exceed fifty billion cartons per year.

25,000 TO 75,000

From 25,000 to 75,000 tonnes annual carton recycling capacity.

Introducing attributed recycled polymers

Tetra Pak has announced the introduction of attributed recycled polymers, becoming the first company in the food and beverage packaging industry to be awarded the Roundtable on Sustainable Biomaterials (RSB) Advanced Products certification. The move marks a key step towards circularity that includes minimising dependency on virgin, fossil-based resources, responsibly sourcing raw materials, designing packages for enhanced recycling, and building partnerships to develop effective collection and recycling infrastructure worldwide. Early in 2022, Tetra Pak in partnership with Elvir, a subsidiary of Savencia Fromage & Dairy – a world leading milk processor – has become the first carton packaging player in the food and beverage industry to launch a cap using attributed recycled polymers.

RSB

Tetra Pak has committed at least

€100 million

annually over the next

5–10 years

in sustainability innovation to help deliver processing and packaging solutions with a minimal carbon footprint.

Optimal UHT portfolio cuts water usage and carbon emissions for the dairy sector

Tetra Pak's new UHT 2.0 portfolio with OneStep technology, combined with Tetra Pak® E3/Speed Hyper packaging equipment reduces water use by 70 per cent, greenhouse gas emissions by 20 per cent and product losses by 30 per cent compared to a conventional line solution. The Tetra Pak® E3/Speed Hyper filling machine for portion packages uses eBeam sterilisation technology to be more efficient and faster than has previously been possible.

Positive results despite difficult market conditions

In 2021, Sidel achieved good results despite a challenging market with increased raw material prices, long delivery times and restrictions due to the COVID-19 pandemic. I believe that we were able to continue to meet customer needs through our ability to adapt and be agile, and by working closely with our customers to overcome market challenges. We also made good progress in digitalisation, aseptic solutions, sustainability and improving how we work at Sidel. When summarising 2021, I would like to express my gratitude to our devoted co-workers – without their commitment and hard work, we would never have succeeded in satisfying our customers amidst these difficult times.

We are well known by our customers for our agility and commitment that helped our achievements during the year. Agility comes from years of partnering with customers to overcome challenges, and commitment is related to how we support our customers to deliver value.

Meeting our financial goals

In 2021, we met our targets in net sales, order intake, operating profit and cashflow. Net sales amounted to €1.4 billion. Order intake increased by 42 per cent for capital goods and 11 per cent for services due to strong consumption. Many investments were made in 2021 to catch up with the 'pause' of 2020 related to uncertainty during the pandemic. Many orders were also placed earlier at the end of the year instead of 2022, due to long delivery times, which have more than doubled due to the widespread shortage of electronic components. We don't expect delivery times to return to normal until the summer of 2023. We were also successful in cutting costs and achieved a positive operating result. Increased sales, lower costs and receivables also contributed to a positive cash flow.

Rebound of the packaging market

The packaging market started to rebound in the fourth quarter of 2020 and the positive trend continued throughout 2021, with consumer demand back to 2019 levels for most categories apart from alcoholic beverages. Health and nutrition remain a priority for consumers, which boosted demand for products like flavoured water and dairy. The interest in 'water on the go products' also returned as well as aseptic bottles for healthy products, especially in the US.

The beverage, food, home and personal care market segments grew by 7.8 per cent to 3,835 billion units in 2021, compared to 2020. The positive market trend prevailed in most geographies except for Southeast Asia where the pandemic continued to impact investments. In terms of packages, PET enjoyed a strong demand with a particular interest in recycled (rPET). Both PET and can exceeded 2019 levels while the demand for glass as a packaging material decreased.

Lessons learned from the pandemic

During the past year, COVID-19 created market challenges for Sidel and the entire industry.

"The packaging market started to rebound in the fourth quarter of 2020 and the positive trend continued throughout 2021, with consumer demand back to 2019 levels for most categories apart from alcoholic beverages."

A shortage of electronic components, travel restrictions, and price increases on raw materials, packaging materials, logistics and transport increased costs and delivery times. But there were also lessons learned that contributed to Sidel's development, such as better price management, and accelerated digital services with the launch of the Evo-ON® digital suite and remote services for the instalment and servicing of machines at customer sites. Moreover, we continued to evolve our 'Fit for Business' programme that aims to alleviate the financial impact of the pandemic. In 2021, our focus was on sustainable, reoccurring savings year after year, and on improving the way we work. We have created a new programme, 'Leading Excellence at Sidel', where we simplify our routines, increase digitalisation, and become better at visualising and working cross-functionally to better co-ordinate an improved workflow.

Sustainability at our heart

In 2021, we set science-based climate targets in line with the Paris climate agreement and made good progress on achieving them. Our climate target for 2030 is to reduce energy consumption and emissions by 30 per cent across our sites and facilities and by 25 per cent for everything that we purchase and sell. Our work on scope 1 and 2 includes expanding our ISO certifications, making investments in renewable energy and energy efficiency, and using our Evo-ON Eco application for monitoring and improving on-site manufacturing in our factories, which is the same technology we provide to our customers for optimising their production. For scope 3, besides focusing on sustainable sourcing, we

have developed a new aseptic PET line solution that lowers the CO_2 footprint through a more efficient use of resources, and new bottle washers that allow less water and chemical use. Sidel has also set up a pilot-scale PET recycling line in Octeville, France, to support customers with the transition from PET to rPET to reduce their own scope 3 emissions. In addition, we are helping customers with tethered caps, developed by Novembal at Sidel Group, among others around the globe, which may require the upgrade of existing lines, for regular and sensitive products where food safety cannot be compromised.

Strong support for sustainable food systems

Sidel has a strong standpoint on the theme of this report – 'Sustainable Food Systems'. With our packaging solutions and know-how, we can contribute to sustainable food systems and many of the Sustainable Development Goals. By engaging with customers, we can develop new innovative and sustainable solutions to meet their needs.

2022 – opportunities for growth and positive results

We are planning several new product launches in 2022. Having a leading position within aseptic PET solutions, one important product launch will be the Aseptic Predis X4 with an integrated blow-fill-cap solution, which will offer our customers simplicity, food-safety, and built-in intelligence. We will also continue to grow in the Food, Home and Personal Care markets, where we see good opportunities for market expansion. We will capitalise on the lessons from COVID-19 to drive excellence, effectiveness and productivity, as well as continued development in core areas, such as digitalisation, sustainability and aseptic solutions. Even though the current market challenges are difficult to predict, I am convinced that Sidel can continue to achieve positive results – by staying agile and working together for the success of our customers.

Monica Gimre

"We will capitalise on the lessons from COVID-19 to drive excellence, effectiveness and productivity, as well as continued development in core areas, such as digitalisation, sustainability and aseptic solutions".

SIDEL **GLOBAL LEADERSHIP TEAM 2022**

Monica Gimre
President & CEO

Marina de Barros
Executive Vice President of Customer Management for Europe & Central Asia

Frédéric Sailly
Executive Vice President of Customer Management Americas

Juergen Voss
Executive Vice President of Finance, Business Transformation & IT

Andrea Forzenigo
Executive Vice President of Product Supply & Sourcing

Ko Hoepman
Executive Vice President for Portfolio, Innovation & Marketing

Clive Smith
Executive Vice President of Customer Management for Asia, Oceania and Africa (AOA)

François Lejard
Executive Vice President of Services

Deepak Kumar
Executive Vice President of Human Resources

Christer Carling
Executive Vice President of Legal Affairs

Packaging solutions for a more sustainable future

Sidel supports the United Nations efforts to transform today's food systems and the company's actions are aligned with the 17 Sustainable Development Goals (SDG) of the United Nations. The company's packaging solutions can in many respects contribute to a more sustainable future.

"Our food systems suffer from multiple problems, such as malnutrition, Greenhouse Gas (GHG) emissions and food waste – just to mention a few. With a growing world population, these challenges become even more pronounced," says Luc Desoutter, Sustainability Officer at Sidel.

The right packaging solutions can play an important role in contributing to better functioning food systems. Food is precious and packaging is essential to protect it. Packaging has several key functions, such as guaranteeing product integrity, contributing to product hygiene and consumer safety, increasing the lifespan of products, and reducing product losses.

With its packaging solutions and know-how, Sidel can in many respects contribute to creating sustainable food systems. Sidel's actions are aligned with the 17 UN SDGs.

PET is king for packaging water

Several of the SDGs are linked to potable water – predominantly SDG 3 Good Health and Well-being and SDG 6 Clean Water and Sanitation, but also SDG 13 Climate Action and SDG 14 Life Below Water.

"Water is a basic requirement of life, and PET is the king medium in the world for packaging water," says Desoutter. "It brings protection to deliver healthy and safe water to avoid contamination."

Two billion people in the world have no access to potable water, and many countries have no tap water. Here, bottled water plays a key role. It has a low-carbon footprint. Except for the material used to package water, the transportation and distribution of bottled water represent the greatest proportion of the carbon footprint. As a light packaging material, PET is the best choice to reduce transport-related greenhouse gas emissions.

Aseptic solutions for sensitive products

Sensitive products and aseptic solutions are linked to SDG 2 Zero Hunger, SDG 3 Good Health and Well-being, SDG 12 Responsible Consumption and Production, SDG 13 Climate Action and SDG 14 Life Below Water. One good example is Sidel's aseptic PET packaging line for milk. It boosts production capacity and sustainability by supplying ultra-high-temperature (UHT) milk products in PET bottles. Another example is the packaging of sensitive products like perishable dairy products and juices. Sensitive products have a much higher carbon footprint themselves than their packaging. For instance, milk has a carbon footprint that is ten times greater than its packaging. With sensitive products, the function of the package is essential to protect against any form of product contamination and changes in taste and smell, caused for example by oxidation, and vitamin losses. Therefore, packaging brings the maximum lifetime to the product, which helps avoid food waste.

Food grade r-PET: 80 per cent lower emission than PET

Sidel continuously works to support its customers to further reduce their GHG emissions, such as by helping them to convert their packaging to recycled PET (r-PET). r-PET generates 80 per cent less GHG compared to virgin PET and can provide recyclable, recycled, safe and eco-friendly packaging. Sidel is commissioning a pilot-scale r-PET recycling line in Octeville, France. In 2022, new services will be provided in this testing

platform along with laboratory capabilities to support customers in the transition from PET to r-PET.

Less chemicals and minimal water with Predis

Sidel's Aseptic Combi Predis™, a blow-fill-seal solution with dry preform and cap sterilisation, is most environmentally responsible. No water is consumed and very few chemicals are used to sterilise the bottle during production. The cleaning of the Sidel equipment provides another opportunity to reduce the quantity of chemical products and energy used for CIP (Cleaning in Place) cycles.

"We consciously act for the sustainable transformation of the packaging industry, providing safe and innovative eco-friendly solutions for a circular economy and a positive impact on our planet. We are committed to the Science Based Targets initiative and thereby reducing our GHG emissions by 30 per cent by 2030," concludes Desoutter.

Sidel helps Inex boost production capacity and sustainability

The Belgian milk producer Inex has invested in Sidel's aseptic PET packaging line to help meet a growing demand for locally produced milk. Sidel's new efficient packaging line will enable Inex to boost production capacity and sustainability by supplying ultra-high-temperature (UHT) milk products in PET bottles. The shift from carton to PET gives Inex the possibility to offer UHT milk packaged in safe and user-friendly PET bottles, with a much lower environmental footprint.

Inex is a 100 per cent privately owned company in the heart of Belgium that collects milk from local farmers. It exports 50 per cent of its production to neighbouring countries and produces a variety of authentic dairy products including fresh and long-life UHT milk, dairy drinks, cream and other milk derivatives.

To increase production capacity and simultaneously reduce its environmental footprint, Inex has cooperated closely with Sidel to design and install a new aseptic packaging line that will package its UHT milk in a safe, sustainable and user-friendly PET bottle.

"Sidel was an excellent cooperation partner. All viewpoints they offered made it clear to us how beneficial the new line would be,"

Steven Dierickx, CEO at Inex.

There were several considerations that influenced the decision to shift from carton to white PET. PET is not only a perfect match for safe and shelf-stable low-acid products, but it is also a 100 per cent closed-loop recyclable material. In addition, production with Sidel's Aseptic Combi Predis™, a blow-fill-seal solution with dry preform and cap sterilisation, is much more environmentally responsible. No water is consumed and very few chemicals are used to sterilise the bottle during production.

"The new PET bottle contains a minimum of 25 per cent recycled PET, is 20 per cent lighter than other plastic (PE) bottles and therefore has a 20 per cent lower CO_2 footprint," concludes Dierickx.

Sidel's dry preform sterilisation enhances Nongfu Spring's aseptic production

Nongfu Spring, a leading Chinese soft drink producer, acquired the Versatile Aseptic Combi Predis™, which is a complete aseptic packaging line from Sidel. Nongfu Spring's latest additions to its beverage portfolio required a hyper-flexible and safe aseptic solution, able to process high- and low-acid, still and carbonated products in PET, while enabling attractive bottle designs. Sidel's aseptic dry preform sterilisation solution has supported Nongfu Spring in the efficient expansion of its portfolio, while ensuring reliability and product integrity. The line helped the Chinese beverage producer launch a breakthrough in the domestic market: sparkling Ready-to-Drink products, aseptically bottled in PET.

Varun Beverages in India chooses Sidel's aseptic PET technology to combine dairy and juice filling

Varun Beverages Ltd, part of RJ Corp group, one of the largest franchises for PepsiCo Inc. globally, has installed Sidel's Aseptic Combi Predis™ including dry preform sterilisation in its newly established plant in Punjab, India. This important project aims to expand PET bottling capacity and provide production flexibility for the private label milk brand Cream Bell as well as Pepsi's Tropicana juice range. The investment was driven by the trend of Indian consumers looking for more nutritional beverages with a market shift towards so-called 'better-for-you' drinks. "Managing both juices and dairy products on the same PET packaging line flexibly was essential for us, and we could only make it happen by producing in aseptic," says R.J.S. Bagga, Director Technical & Operations at RJ Corp.

Leading oil seed processor in Africa chooses Sidel's blowers

Willowton Group in South Africa has strengthened its market position thanks to Sidel's expertise in PET blowing and packaging design. To differentiate its sunflower oil brand, Sunfoil, as well increase production volumes, Willowton purchased two Sidel EvoBLOW™ standalone blowers and took advantage of Sidel's packaging design skills to develop customised family bottle shapes. In addition, Willowton chose to install a mould Bottle Switch™ system to conduct ultrarapid bottle changeovers of different bottle formats. One of the many benefits of Sidel blowers is a more independent bottle production setup. The equipment also enables efficient production planning and reduces warehouse space.

Romanian mineral water producer invests in complete PET line for improved capacity and sustainability

To meet changing market demands, Romanian mineral water company Apemin Tusnad, has invested in a new Sidel Combi carbonated and non-carbonated mineral water PET line to maintain its high technical and hygiene standards. All bottle forming, filling and closing operations are performed in an integrated and fully automated system. The entire circuit of bottling mineral water – from underground aquifer to the enclosed filling environment – takes place in a controlled system without any external biological interaction. Sidel's BlendFill integrated filler and carbonator solution also reduces Apemin Tusnad's CO_2 consumption as it requires fewer components and functions. In addition, due to the lightweighting and shorter neck finish of the bottle, Apemin Tusnad achieves an average savings of 5 per cent on plastic consumption per bottle.

Spanish milk producer invests in complete aseptic PET line

COVAP, a Spanish cooperative and one of the major milk producers in Spain, has invested in its first complete aseptic PET line from Sidel. UHT liquid dairy products (LDPs) are now available in PET bottles for the first time.

Although LDPs are dominated by carton packaging, major supermarket players have also decided to sell them in PET bottles based on market preference. The line was not only installed for COVAP UHT dairy products, but also for retailer brands from hotel, restaurant and café channels. The new PET bottles were designed with a sleek shape, providing a similar look and feel to glass bottles. Thanks to the PET barrier properties, the shelf life of milk drinks has been extended by four months to retain their fresh taste. The line investment has enabled COVAP to annually produce 30 million PET bottles.

Braguinée rapidly launched a new 1 L bottle thanks to Sidel remote services

Sidel has helped its customer Braguinée (Nouvelle Brasserie de Guinée), part of the Gaselia Group and specialised in producing carbonated soft drinks, to adapt its offering to meet the market need for larger formats. The company was previously producing beverages in small, on-the-go formats (300 ml and 350 ml) and needed to adapt its production for home consumption with a larger format (1 L) for three of its flagship brands ('Planet', 'Bubble Up' and 'American Cola'). In just three days, Sidel's multi-expertise team from around the world were mobilised to guide and empower the customer, using Sidel's latest remote line-adaptation technologies and leveraging effective digital solutions – Remote Video Assistance and Remote Access – for the quick set-up of the larger formats.

A Sustainable Sidel

At Sidel, we believe that good business is founded on sustainable practices. By placing sustainability at the heart of everything we do, we are protecting our precious environment and ultimately creating a better future for all.

Our mission to empower sustainable transformation begins at home. How else could we take a lead in this critical space, except by example? Only by minimising our own emissions, energy consumption and footprint can we encourage others, in our supply chain and beyond, to join us in our direction of travel.

Science Based Targets initiative (SBTi)

In 2021, Sidel set firm targets to conduct more sustainable operations. To do so in a scientific way, recognised by our customers, we committed to the Science Based Targets initiative, submitted our targets and got them approved in mid-June 2021. With a clearly defined science-based path to reduce emissions, in line with the Paris climate agreement goals, we developed a strategy and an action plan. Already today, several activities have been initiated at Sidel to reduce our emissions and become more sustainable.

Targets

Our Greenhouse Gas (GHG) emission reduction targets are to decrease our scope 1 and 2 emissions (controlled by our industrial sites) by 30 per cent and our scope 3 emissions (mainly use of sold products and on sourcing) by 25 per cent by 2030 compared to 2019.

Strategy

Our GHG reduction strategy consists of four pillars:

1. **A Sustainable Sidel** – targets our scope 1 and 2 emissions and involves decreasing GHG at our sites through measures such as reducing energy consumption for lighting, heating, cooling, improving building insulation and using green energy.
2. **Sustainable Lines & Sustainable Sourcing** – focuses on our scope 3 emissions, which involves improving the energy efficiency of Sidel equipment when in operation at our customers' sites through our product development plan. It also involves creating a low-carbon purchase policy and setting reduction targets for our suppliers.
3. **Eco Services** – aims to help our customers reduce their GHG emissions. We provide virtual remote assistance capabilities, the 3D printing of spare parts, eco options and upgrades of our customers' operations, rPET related services, tethered caps and digital services including Evo-ON® Eco – all to help our customers to reduce their energy consumption and emissions.
4. **Sustainable Packaging** – focuses on reducing, recycling, reusing, replacing and reinventing – to also serve the circularity targets of our customers and their scope 3 emissions. This pillar is about replacing existing packaging material with more sustainable ones, introducing new formats of packaging or developing new distribution models. PET has the best assets when it comes to light-weighting and post-consumer recycled content in order to lower the environmental footprint.

Plan

To bring the strategy to life, as part of its Product Development Plan (PDP), Sidel has implemented a Sustainable Packaging Framework where 30 topics related to packaging are being assessed, discussed and managed. Examples are new packaging material, new closure design, smart packaging and new ways of warehousing and logistics.

Management systems for constant improvement

We set high standards at all our sites around the globe to meet – and even exceed – our customers' needs and expectations. Our ISO 14001:2015 Environmental management system and ISO 45001 Health and Safety management system certifications cover 19 of our industrial sites. In 2021, 75 per cent of our sites were ISO 45001 certified and 80 per cent were ISO 14001:2015 certified. We aim to have all our sites certified by the end of 2023.

Towards sustainable packaging and equipment

Our packaging solutions are based on a huge amount of innovation, and we are committed to helping our customers to minimise their environmental footprint. Our 5 "R" approach, namely Reduce, Recycle, Reuse, Renew, Re-invent, answers the circularity requirements of both customers and consumers.

ISO

75% of all sites are ISO 45001 and 80% ISO 14001 certified.

Our ISO 14001 environmental management system and ISO 45001 Health and Safety management system certifications target 100% of sites in 2023.

Target
100%
of sites in 2023

Certification roadmap

From 19 individual certificates to a Global one

2019
47%

2020
70%
Two new sites

2021
80% Env
75% H&S
Project launched for Pune, Atlanta, Cognac, San Vendemiano

2022
80% H&S
80% Env

2023
100%

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SBT objectives

We set clear Science Based Targets:

-30%
in scope 1&2 Sidel's emissions

-25%
in scope 3 customers' emission

B-

In 2021, Sidel got a B- in CDP score Report while the average performance for powered machinery sector is C.

CDP DISCLOSER 2021

PDP product development plan

Product Development Programme

+45%
investments versus 2020

65%
carry-over

35%
new projects

Ellen MacArthur Foundation

Brand and retail signatories have increased the post-consumer recycled content between 2018 and 2020 by 60% (from 5.2% to 5.8%). We see this trend in 2021 continuing with a number of introduction of r-PET bottles in the European market especially.

NEW PLASTICS ECONOMY Global Commitment

60%
increase 2018 – 2020

Overcoming market challenges to drive strong business growth

DeLaval enjoyed another excellent year in 2021 with strong growth in almost all geographies and product areas, despite market challenges primarily related to the pandemic.

Growing demand for milk drives our market

Sales growth amounted to 5.5 per cent and customer orders increased 9.4 per cent year on year. Sales grew for the fifth consecutive year and 2021 was our third record year in a row. We are very grateful for the continued trust our customers have shown us.

Our business was driven by a strong global market demand for milk, with an increase in the home consumption of dairy products that more than compensated for the effects of schools and restaurants locked down around the world.

Sales of our rotary parlours grew by almost 50 per cent, primarily driven by strong demand in China and the US where customers invested in new capacity to meet the growing need for milk. We also saw a strong demand for DeLaval VMS™ V300 and V310, our robotic milking systems, as well as our various InService™ concepts where our subscription models grew for dairy consumables significantly.

Overcoming challenges through dedication, innovation and agility

Throughout the year, our top priority has been to safeguard the health, safety and well-being of our employees. Coupled with a strong focus on execution in our operations, this enabled our teams to continue to serve our customers – who depend on us in their everyday dairy operations.

Turbulence in the global supply chain meant that we had to deal with component shortages, which disrupted our operations and even meant that our teams had to adapt or redesign some of our products during the year. New ways of working were also introduced to keep farms running and operations intact. For example, we installed and commissioned equipment at remote dairy farms assisted by digital tools and advice from engineers thousands of miles away – something that would have been inconceivable just a few years ago.

Our strong corporate culture, always with a clear customer focus and a 'can do' attitude, has been paramount as it guided our everyday operations and helped us manage the challenges posed by the ever-changing pandemic situation.

Making sustainable food production possible

As a company that enables farmers to do more with less and reduce the environmental impact of every litre of milk they produce, contributing to sustainable food systems is our reason for being. During the year, we supported our customers to reduce their environmental footprint while improving food production, profitability and the well-being of the people and animals involved.

This is by far the greatest contribution DeLaval makes to the UN Sustainable Development Goals and a more sustainable society. Our focus on product innovation remained strong and supported us in fulfilling our vision 'We make sustainable food production possible'.

We naturally also worked to minimise the impact of our own operations through reducing waste and energy consumption as well as increasing resource efficiency.

Our ongoing product innovation

Several new products were launched in 2021 including new versions of our E-series rota-

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ries, an all-new manure robot, DeLaval robot collector RC, and DeLaval Flow-Responsive™ Milking. The work to invent truly sophisticated digital services with sensor technologies that use artificial intelligence and machine learning progressed well. These and other technologies ultimately drive sustainability and more sustainable food production, as they provide farmers with a basis for better decision making.

Outlook for 2022

Strong growth for our products and services is expected to continue in the foreseeable future and we will maintain our focus on innovation with automation and digital solutions as the focal point. We will also continue to drive our sustainability agenda. This will involve working together with universities, specialists and customers, and seeking partnerships with others in the industry as well as maintaining a dialogue with policymakers.

While I am very pleased with how our business was managed in 2021, the challenges in the global supply chain are not yet over. We will remain committed to serving our customers and will constantly find new and improved ways of working in this ever-changing climate.

Summing up, as I reflect on my first year as President & CEO at DeLaval, our business has a very strong market position backed up by our highly engaged and passionate employees. We also have high customer satisfaction and a strong innovation agenda that helps farmers to run their operations sustainably.

DeLaval will continue to lead and make sustainable food production possible.

Paul Löfgren

“Strong growth for our products and services is expected to continue in the foreseeable future and we will maintain our focus on innovation with automation and digital solutions as the focal point”.

DELAVAL **GLOBAL LEADERSHIP TEAM 2022**

Paul Löfgren
President & CEO

Jonas Hällman
Executive Vice President
Cluster EMEA

Fernando Cuccioli
Executive Vice President
Cluster Americas

John-Erik Hermanson
Executive Vice President
Supply Chain

Christian Poggensee
Chief Financial Officer

Lars Johansson
Senior Vice President Corporate
Communications & Sustainability

Johan Ledel
Executive Vice President
Cluster Asia Pacific

Magnus Berg
Executive Vice President
Product Management &
Development

Lars Bergmann
Executive Vice President
Digital Services

Valerie Binner
Senior Vice President
Human Resources

Johan Swahn
Senior Vice President
Legal Affairs

Promoting more sustainable food systems through animal welfare

Animal welfare is essential to promoting a more sustainable dairy industry, and DeLaval plays an important role in supporting its customers by integrating animal welfare into everything it does.

The importance of animal welfare in a sustainable food system

Animal welfare can be described as the animals' mental and physical state of well-being. DeLaval is fully committed to following the globally established 'five freedoms' of animal welfare. These are: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury, and disease; freedom to express normal and natural behaviour; and freedom from fear and distress.

"Animal welfare is an integral part of what we do," says Fabian Bernal, Head of Sustainability at DeLaval. "It is important for our customers, dealers, employees and other stakeholders and is fundamental for creating sustainable food systems."

A healthy animal provides more milk, at a better quality and for more years. This contributes to sustainable food systems by optimising the use of resources and the amount of milk produced – to drive farm profitability while promoting food safety through stringent compliance controls.

"Healthy and more productive cows help to reduce environmental impact as they have a lower greenhouse gas intensity per kilogram of milk produced. This is why we need to focus on animal welfare together with management practices, productivity, nutrition, genetics, health, and longevity – to create more efficient and sustainable dairy systems," says Bernal. "Cattle also play an important role in maintaining ecological balance and soil health on farms and pastures around the world."

Customers have their say on Flow-Responsive Milking

Gossmar Farm, Germany

Herd size:
- **1,200 cows in total**
- **Approximately 980 cows in milk**

"After we switched to Flow-Adjusted Stimulation, teat condition improved, our milk curves have become better and we no longer have so many bimodalities. We used to pre-milk six cows so that we had time to prepare them and then the six were attached to the cluster. Now only one milker does the pre-milking, wiping and attaching of a cow before pre-milking, wiping and attaching the next one. The cows have also become more relaxed."

Jana Sunkel, Herd Manager at Gossmar Farm.

DeLaval's role in promoting sustainable food systems through animal welfare

The products and solutions DeLaval provides help customers to promote animal welfare in their herds.

"Our comprehensive dairy management solutions together with our expert support and advisory teams seek to optimise cow health and well-being," explains Bernal. "This includes our products, equipment and services, but also the transfer of knowledge to both large and small farms around the world."

Contributing to more resilient and less vulnerable food systems

The dairy industry provides affordable nutrient-dense and protein-rich foods for the over 80 per cent of the world's population that regularly eat or drink dairy products – equivalent to over six billion people. It also provides the backbone of agriculture in many rural communities around the world by employing around 240 million people, including 80 million women.

"Promoting animal welfare and helping our global dairy industry to be as sustainable as possible is essential for food security and rural prosperity around the world," says Bernal. "I believe in the resilience of animals, farmers and farm systems, but that we need to raise awareness of the important role the dairy industry plays in the world and how we can work together on sustainability and animal welfare topics."

DeLaval Flow-Responsive Milking™ sets new standard for milking

Flow-Responsive Milking revolutionises how cows are milked by responding to the natural milk flow from the cow – to save time and promote animal health.

Utilising the cow's full milking potential

The first two new Flow-Responsive Milking technologies – Flow-Adjusted Vacuum and Flow-Adjusted Stimulation – were launched at a DeLaval milking symposium in October. The technologies use the actual milk flow to adjust milking parameters like vacuum and pulsation to create a more efficient milk flow profile.

By adapting the applied vacuum to the milk flow profile of each cow, milking times can be reduced by 10 per cent on average. Third-party studies have also shown that udder health and especially teat-end conditions are improved at almost all farms.

"These solutions utilise every cow's full potential during milking by balancing their natural push with the pull of the milking machine to optimise milking," says Martin Wiedemann, Cluster Solution Manager at DeLaval. "They are game-changing adjustable vacuum solutions for dairy farmers that no one else currently offer on the market."

Contributing to sustainable food systems

"Flow-Responsive Milking technologies are all about making better use of existing equipment to be more efficient, cut milking time, promote cow health and improve working conditions for parlour employees," says Wiedemann. "We are now producing materials for our sales teams to help promote these technologies. But it's not just about selling machinery – it's about selling a philosophy to utilise the full potential of every cow."

In the coming years, DeLaval plans to deliver Flow-Responsive Milking solutions with even greater functionality and machine learning capabilities to achieve even more efficient and faster milking.

Doehrmann Family Farm, Germany

Herd size:

- **420 cows in total**
- **Approximately 360 cows in milk**

"Flow-Adjusted Vacuum has helped us to solve the challenge of reducing the milking time. Especially for cows with a high milk yield (20-30 kg per session), we save about 50 seconds per milking time. The solution also saves time for employees and provides better working conditions. My expectations have been exceeded. We are much faster and have improved our milking process. I notice this in the behaviour of my employees and my cows during milking."

Henrik Doehrmann, Owner of the Doehrmann Family Farm.

DeLaval Parlour P100 – for a smooth and efficient milking process

The parlour was developed with input from customers and a focus on work efficiency, animal welfare and farm profitability. “With the P100, we present a new side-by-side parlour that combines simplicity, functionality and extraordinary efficiency in a conventional exit system,” says Karol Ferenc, DeLaval Cluster Solution Specialist Parlours. “We are pleased with the performance achieved with the DeLaval P100 parlour and the reactions of our customers and the feedback we received from the installations.” Besides ensuring a smooth milking process, the P100 is easy to install, uses less resources and enables the right automation for each farm.

DeLaval introduces new manure robots for solid floors

To improve cow comfort and especially hoof condition, DeLaval has introduced a new robot collector series to its existing family of robots. The new robotic collector series, including RC550 and RC700, is designed for solid floors and can handle most types of manure. It does not need added water and adapts to the barn instead of having to adapt the barn to the manure system. “With the new robot collector series, we take the next step in completing our robotic family, helping farmers around the globe to increase farm profitability, especially as availability of labour is scarce,” says Paul Löfgren, President & CEO.

Improved waste management saves 43 tonnes of CO_2

DeLaval production sites around the world have reduced waste by around four per cent, despite increased volumes. By reducing packaging waste, the production sites have avoided the creation of over 43 tonnes of CO_2. “There is a strong commitment among the team and leaders to find and highlight the excessive use of materials and transportation in a structured way,” says Gustav Nordlander, Manager Production Planning Europe. “The result is truly fantastic and motivates everybody to make further improvements.”

German site recertified as ‘Family Friendly’

DeLaval’s site in Gallin, Germany, has been re-certified according to the ‘Family Friendly Award’ for offering a valued workplace with a strong focus on work-life balance for the 2022-2024 period. The award is handed out annually by the local authorities to businesses that promote a good work-life balance.
“We particularly impressed the jury with our exemplary COVID-19 measures and family-friendly flexibility with home working for our employees,” says Andrea Lemke, Director HR Central Europe & Supply Chain. “This certification makes DeLaval stand out from the crowd as a company that values its employees and strives to ensure a good work-life balance.”

Increasing our knowledge in sustainable dairy farming

The two-day digital bi-annual Large Customer Project Support and Development Conference involving DeLaval experts and guest speakers focused on emerging technologies and solutions. Over 150 attendees listened to speakers from Arla, Tetra Pak, National Milk Producers in the US and DeLaval experts who shared insights on sustainability in dairy farming and carbon footprint calculations. “The key takeaway from the conference was that no one size farm fits all. Milk production efficiency with animal welfare and cow comfort at the centre, secures food safety and food availability,” says Lior Yaron, Vice President Large Customer Project Support.

DeLaval supports Pathways to Dairy Net Zero

The global dairy sector has joined forces to accelerate climate action and help reduce dairy’s impact on the planet. The entire international dairy supply chain, which produces nutritious foods for six billion people and provides livelihoods for one billion people worldwide, is called on to step up its climate ambition and unite behind this movement. “As a supporter of Pathways to Dairy Net Zero, DeLaval recognises that dairy helps create sustainable food systems, ensuring high-quality nutrition for all. Reducing emissions today will safeguard nutritional security and sustain livelihoods for tomorrow,” says Paul Löfgren, President & CEO.

Helping the dairy industry become more sustainable

As a provider of products and services to dairy farmers all around the world, DeLaval can help the dairy industry work towards a sustainable future.

This means providing products and solutions that improve working conditions for farmers and ensuring that animals are well taken care of, while at the same time reducing the environmental impact on every farm and ensuring its long-term success. Our approach to sustainability has three main perspectives – Environment, Food Safety & Animal Welfare and Social & Economic.

Environment

We are committed to reducing our greenhouse gas emissions, ensuring water is used responsibly, and reducing energy and waste. We have a long history of developing products and solutions that reduce the environmental impact of every litre of milk produced and improving efficiency and milk yield on farms.

Food Safety & Animal Welfare

We focus on animal welfare and cow longevity by promoting and enabling best management practices. A healthy animal provides more milk, at better quality and for more years.

Our approach enables us to meet all regulations regarding milk quality to ensure food safety.

Social & Economic

We aim to be a modern, diverse and inclusive employer to attract and retain the talent we need to achieve our strategic ambitions. We also promote the health and safety of our employees and the farmer communities in which we operate. Our approach helps both our customers and DeLaval to maintain a profitable business in the long term.

Animal welfare is key

Animal welfare is an essential part of a sustainable dairy farm, and our products and services are developed with cow health and welfare in focus.

"Every farmer wants healthy animals that provide more milk, at better quality and for more years," says Cecilia Bågenvik, VP Animal Intelligence & Welfare Solutions. "Our role at DeLaval is to give the farmer the tools to make this happen through various features and measures that for example allow early detection of disease that can avoid milk loss and help to reduce the use of antibiotics. We always strive to create comfortable and stress-free environments for the animals. What's good for the animals is good for the farm and the profitability of our customers."

DeLaval Sustainability Group

We now have a dedicated team of ten people appointed by group management to ensure that we deliver on our sustainability promises and bring DeLaval closer to reaching its vision of making sustainable food production possible.

Several team members have been involved with sustainability at DeLaval for many years but in 2021, we formally created this team to better focus our efforts. The diverse team includes senior personnel from seven different countries and is led by our Head of Sustainability, Fabian Bernal.

United Nations Sustainable Development Goals

Everything we do at DeLaval connects directly to the United Nations Sustainability Development Goals. We see that we can contribute to eight of these goals. Goal number 17 – partnerships, applies to everything we do. The remaining goals are linked to our focus areas in the following ways.

Our greenhouse gas emissions

In terms of environmental sustainability, we work mainly with the three established 'scopes' of the Greenhouse Gas Protocol and an additional fourth scope that looks at how we can help farmers reduce their emissions.

The greatest climate impact DeLaval can have is to help farmers do more with less, which reduces their emissions.

Scope 1 & 2	Scope 3/Upstream	Scope 3/Downstream	Scope 4
Emissions from DeLaval operations	**Emissions caused by DeLaval to produce and send product**	**Emissions from customer using the product**	**Avoided emissions by using the product**
Examples • Natural gas (scope 1) • Fuel to vehicles (scope 1) • District heating (scope 2) • Electricity (scope 2) • Water usage (scope 2)	**Examples** • Natural gas (scope 1) • Fuel to vehicles (scope 1) • District heating (scope 2) • Electricity (scope 2) • Water usage (scope 2)	**Examples** • Natural gas (scope 1) • Fuel to vehicles (scope 1) • District heating (scope 2) • Electricity (scope 2) • Water usage (scope 2)	**Examples** • Natural gas (scope 1) • Fuel to vehicles (scope 1) • District heating (scope 2) • Electricity (scope 2) • Water usage (scope 2)

Our sustainability targets

-30%

We aim to reduce scope 1 & 2 emissions by 30% by 2030.

We have mapped most of our scope 1, 2 & 3 upstream emissions. We are now focusing on completing the remaining work.

-20%

Reduce waste by 20% by 2030.

Our goal is to

Reduce water consumption

and ensure responsible water use in our products and operations.

Our progress in 2021

-8%

Energy reduced by 8% compared with 2020.

+1%

Our water consumption only increased 1% despite large volume increases.

Tetra Laval International

Tetra Laval International (TLI) is the financial support and control function for the Board. This includes responsibility for areas such as corporate governance, Group financing and treasury, financial planning and reporting, M&A, tax, internal audit, insurance, leasing and holdings administration. TLI manages the internal control aspects of these responsibilities by means of policies applicable throughout the Group. These policies are reviewed on a regular basis and further enhancements were approved by the Board and will be implemented effective 2022. TLI manages Group financing, foreign exchange and interest rate risks of the Group within a mandate approved by the Board. This continues to be important in the context of continued major market volatility impacting the global economy.

TETRA LAVAL INTERNATIONAL MANAGEMENT 2022

01. Martyn Zedgitt – President
02. Robert Swan – Holdings
03. Robert Norris – Group Financial Planning and Reporting
04. Jörn Rausing – Mergers and Acquisitions
05. Antoine Jomini – Finance
06. Mark Masek – Audit
07. Tuomo Rautiainen – Tax
08. Maurizio Proietti – Operations

TETRA LAVAL GROUP SUPPORT FUNCTIONS

01. Jörgen Haglind – Public Affairs & Group Communications
02. Phil Read – Group Human Resources

These functions are responsible for their respective area throughout the Tetra Laval Group.

Dairy Hub project in Kenya raises milk productivity and household income

In Kenya, Tetra Pak and Tetra Laval Food for Development are collaborating with partners to help 30,000 farmers to increase dairy productivity and income through a Dairy Hub model. The project does not only aim to increase productivity but also increase milk collection and improve milk quality as well as engage women and youth throughout the dairy value chain. Since the project started in 2017, milk production has increased by 19 per cent and the average annual net household income has risen from US$201 to US$1,777.

In Kenya, smallholder farmers are responsible for nearly 80 per cent of all milk produced but they have traditionally been challenged by a lack of infrastructure and experience, which threatens access to safe and nutritious food in the country. The Kenya Market-Led Dairy Value Chain Supply project (KEMDAP) was formed to help improve the situation and meet the growing demand for milk and dairy products. KEMDAP is a four-year project funded by the Swedish International Development Cooperation Agency (SIDA) and implemented by Heifer International.

Linking farmers to a dedicated dairy processor

Tetra Pak joined the KEMDAP project along with Tetra Laval Food for Development and their Dairy Hub model to link 30,000 smallholder farmers to a dedicated dairy processor – in this case New Kenya Cooperative Creameries. This helps enable stable access to market for the farmers and the safe distribution of UHT (ultra-high temperature) treated milk throughout Kenya. UHT milk is key to ensuring food security and safety in the country as the milk has an increased shelf life, meaning it can reach remote areas without a cold chain.

Madgeline Buigut is one of the 11 reference farmers. She has been working with dairy farming for more than a decade, but without seeing much profit. That has now changed, and her farm has grown significantly. Madgeline is also happy that more women are getting a chance to run farms and inspire others to follow in their footsteps.

Reference farmers inspire others

"In the Tetra Laval Food for Development team, we work directly with Extension Officers, a team of local technicians, who are focused on providing extension services and knowledge to the smallholder farming community. We provide the them with technology and hands-on training, and they then cascade this knowledge down throughout the dairy value chain. In the KEMDAP project, we work with a reference farm methodology, working closely with 11 reference farmers carefully selected because they are people who are open to change and have the potential to inspire those around them," explains Lynda McDonald, Project Manager, Dairy Development, Tetra Laval Food for Development.

It has not been an easy journey for the farmers and they have faced many challenges along the way. But strong support from the Extension Officers helped them to solve issues such as lack of clean fresh water, proper feed and nutrition, poor record keeping and a lack of proper farm management, resulting in increased production and profitability.

School Feeding Handbook provides unique insight into improving child health and education

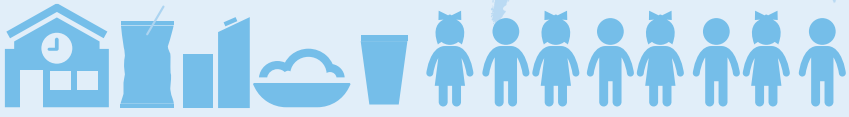
Tetra Pak has been engaged in school feeding programmes since 1962 when Tetra Pak® packages were introduced in Mexico. Tetra Pak and Tetra Laval Food for Development have now introduced a School Feeding Handbook, which provides a unique insight into the many positive benefits that school feeding programmes bring to children and communities worldwide and how they have played a key role in improving health and education for school children. The handbook also gives many examples of best practice and impact data from various school feeding programmes.

School feeding programmes are helping to tackle the challenges of malnutrition and food insecurity at a global level – to make a measurable difference to children's lives. More than 68 million children in 56 countries now receive milk or other fortified beverages in Tetra Pak packages in schools. Both Tetra Pak and Tetra Laval Food for Development continue to play a significant role in the field, actively supporting customers and working in collaboration with governments, UN agencies, and NGOs.

"We regularly share global best practice and provide technical assistance in the evaluation and implementation of school feeding programmes, food safety and quality controls, product development, distribution, and environmental education activities in schools," says Rafael Fabrega, Director, Tetra Laval Food for Development.

68 MILLION CHILDREN IN 56 COUNTRIES

NOW RECEIVE MILK OR OTHER FORTIFIED BEVERAGES IN TETRA PAK PACKAGES IN SCHOOLS.



SOURCE: WORLD FOOD PROGRAMME (WFP)

Over 6 million children benefit from school milk programme in Mexico

The school milk programme in Mexico is one of the longest running programmes of its kind in the world and has made a significant contribution to addressing challenges like malnutrition, education and food insecurity. Today, more than six million children benefit from school feeding in Mexico. Studies from the National Institute of Public Health have highlighted the positive impact of fortified milk consumed by children. During a 12-month period, benefits included a reduction in the presence of anaemia by 21.6 per cent, while iron deficiency decreased by 3.2 per cent.

As early as 1929, the school milk programme, "Drop of Milk Programme", was founded not only to tackle child malnutrition, school attendance and food insecurity, but to also benefit local farmers and incentivise production. This link with local agriculture is important as more than 13 per cent of Mexico's work force is employed in agriculture.

Tetra Classic® Aseptic – a practical solution to logistical challenges

Over the years, the implementation of legislation like the Child Protection Law and the National General Health Law have been essential in prioritising child nutrition and school feeding. As the programme grew in coverage throughout the country, the safe distribution of milk was challenged by various logistical and infrastructure factors, especially in remote areas where a viable cold chain did not exist. As a practical solution to overcome these distribution and food safety challenges, Tetra Classic® Aseptic 250 ml packages were introduced in 1962, marking the first school milk programme where Tetra Pak packages were used.

In 1977, the government created the National System for Integral Family Development (DIF). As one of its responsibilities, DIF manages the school feeding programme. According to DIF school feeding programme regulations, a serving of 250 ml of milk is mandated as a component of the breakfast programme for school children. In addition to the aseptic packages, Tetra Pak has also provided practical support.

Practical support to partners

"Through the programme, we've been able to offer our partners practical support in sharing global best practice in food safety and quality. We also share best practice in environmental education and recycling in schools as well as promoting nutritional awareness," says Robert Graves, Managing Director, Tetra Pak Mexico.

Tetra Pak has been actively involved in supporting manufacturers that produce UHT (ultra-high temperature) milk for the programme and currently there are 14 Tetra Pak customers delivering milk and nutritious beverages to children in schools nationwide.

"Mexico is a flagship example of how demonstrating the importance of impact data, links with local agriculture and economic development, community engagement and policy implementation can play a vital role in the long-term sustainability of a school feeding programme," explains Rafael Fabrega, Director, Tetra Laval Food for Development.

REFERENCES

1) Source: https://globalnutritionreport.org/reports/2020-global-nutrition-report/inequalities-global-burden-malnutrition/
2) Source: http://www.fao.org/3/ca9692en/online/ca9692en.html#chapter-executive_summary,http://www.fao.org/3/i5188e/i5188e.pdf https://www.fooddive.com/news/tracking-coronavirus-closures-at-food-and-beverage-factories/576559/
3) Source: https://www.un.org/sustainabledevelopment/hunger/
4) Source: https://www.statista.com/statistics/262875/development-of-the-world-population/
5) Source: http://www.fao.org/news/story/en/item/1379373/icode/
6) Source: https://www.saveonethird.org
7) Production plants: packaging material converting factories 30, closures (caps) factories 4 (stand alone), additional material strips & films 3, additional material straws factories 2 (stand alone), Processing solutions and packaging equipment production facilities 15.
8) Source: ifeu 2020, “Comparative Life Cycle Assessment of Tetra Pak® carton packages and alternative packaging systems for beverages and liquid food on the European market”.
9) “State of School Feeding Worldwide 2020.” wfp.org, United Nations World Food Programme, 24 February 2021, https://www.wfp.org/publications/state-school-feeding-worldwide-2020.
10) Source: https://www.saveonethird.org
11) The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets.
12) Scope 1 covers direct emissions from our own operations, including fuel consumption and the use of solvents and refrigerants. Scope 2 covers indirect emissions related to purchased electricity, heat, steam or cooling. Scope 3 covers indirect emissions in our value chain from sources not owned or controlled by Tetra Pak
13) CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

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