

# EXCEDING CUSTOMER EXPECTATIONS







# **Exceeding customer expectations**

It all sounds very simple. A customer has needs and suppliers deliver. But in the ever more complex world of processing and packaging food, meeting customer expectations could mean moving traditional technical boundaries. It could be inventing a totally new way of transporting liquid food. It could be finding alternative methods to improve animal welfare. Or finding a solution to a previously unsolved environmental challenge.

Being the world leaders in our respective fields, Tetra Pak, Sidel and DeLaval attract the most well-known, most creative and certainly most demanding customers in the world. Every day, we seek not only to meet these customers' expectations, but also to exceed them.

#### TETRA LAVAL

The Tetra Laval Group consists of three industry groups, Tetra Pak, Sidel and DeLaval, all focused on technologies for the efficient production, packaging and distribution of food.

The head of each industry group has operational management and operational capital responsibility for their respective industry group and reports directly to the Tetra Laval Group Board. Tetra Laval International manages the financial capital of the Group. The Group Board is responsible for the overall strategy of the Group and for controlling and supervising all of its business operations.

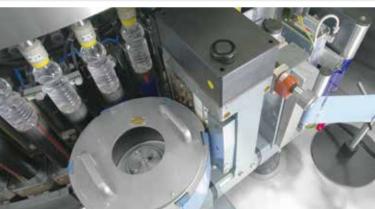
The Chairman ensures the implementation of strategy and policy for the Group. The Chairman monitors the implementation of Group Board decisions by the industry groups and Tetra Laval International.

# A BETTER MATCH

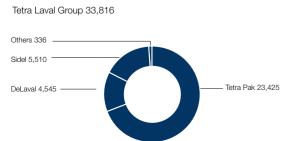
Sidel is a leading global provider of PET solutions for liquid packaging. We are also a supplier for glass and can solutions. We are committed to being the most innovative, responsive and reliable partner, providing sustainable solutions for the beverage industry. Headquartered in Switzerland, we have production sites in 13 countries and 30,000 equipment installed in more than 190 nations worldwide. With over 5,500 employees, we provide optimal PET, glass and can packaging solutions for water, soft drinks, milk, juices, edible oils and alcoholic beverages including beer.

We aim to create value for our customers by giving them A Better Match. This is the tailored solution that caters for their needs exactly. We do this by offering flexible and reliable production systems that are easily adaptable to market developments and future technology, supported by value-added services.

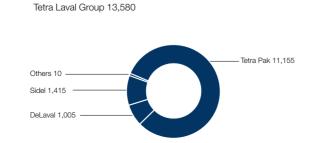




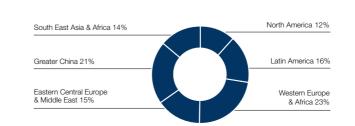
#### NUMBER OF EMPLOYEES, DECEMBER 2012



NET SALES 2012, IN MIO EURO



SIDEL SPLIT OF EQUIPMENT ORDER INTAKE BY GEOGRAPHY, 2012



SIDEL SPLIT OF EQUIPMENT ORDER INTAKE BY MARKET SEGMENT, 2012



 $^{\star}$  Including FHPC (Food, Home and Personal Care) and other alcohol









# 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 worldwide. Service and sales of a wide range of accessories are also key aspects of DeLaval's operations. The company supplies highly efficient system solutions for milking, herd management, animal traffic control, feeding, cooling, manure handling, ventilation and energy recovery.

# **PROTECTS WHAT'S GOOD**

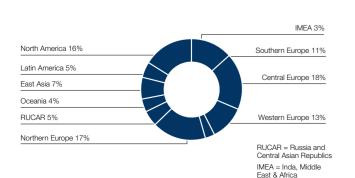
Tetra Pak is the world leader in liquid food processing and packaging. The business of the company includes much more than the packaging of liquid food products. We also provide a range of processing and packaging equipment for use with a broad array of products, from ice cream and cheese to dry foods, fruit, vegetables and pet food. By developing ambient packaging, which preserves the nutritional value and the taste of products, the distribution of such food products to consumers has been greatly facilitated.







DELAVAL SALES SPLIT BY GEOGRAPHY, 2012



DELAVAL SALES SPLIT BY MARKET SEGMENT, 2012



TETRA PAK ORDER INTAKE BY GEOGRAPHY, 2012

Packaging machines and Distribution equipment

Sub-Sahara Africa 5%

South Europe 9%

Central & South America 22%

South & Southeast Asia 8%

Northeast Asia & Oceania 4%

North Europe 3%

East Europe & Central Asia 7%

Greater Middle-East 9%

Greater China 21%

#### TETRA PAK SALES SPLIT BY MARKET SEGMENT, 2012

Of 77,307 million litres of products:



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# Solid performance despite challenging market conditions



Despite the economic uncertainties, 2012 was another year of solid performance for the Tetra Laval Group. The Group delivered net sales growth of 3.9 per cent at comparable rates. This is indeed a solid result considering economic uncertainty, the delay of capital investments by some customers and the strong competitive pressures in the market.

In response to market pressures, all three industry groups have increased their efforts on our competitiveness programmes to bring about increased efficiency in their operations.

#### TETRA PAK - CELEBRATING 60 YEARS OF INNOVATION AND GROWTH

During 2012, Tetra Pak celebrated its 60th anniversary - the latest milestone in its history of successful innovation and growth. Tetra Pak has developed a number of revolutionary products and systems, and continues to invest in innovation. The essence of Tetra Pak, its aseptic technology, has contributed to reducing waste and making food and beverages safer over the years. In addition, the company's innovations have increased its customers' productivity and helped them to reduce their system costs. There are many new product innovations to highlight - recently, for instance, the launch of Tetra Evero® Aseptic, the world's first aseptic carton bottle for milk. This innovative package received much recognition at the Anuga fair in Germany in April 2012.

During the past 10 years Tetra Pak has had an average compound annual growth rate of 4.5 per cent. This trend continued in 2012. Its growth strategy 2020 is a response to a rapidly changing world with greater competition and more demanding customers and consumers. As part of the Tetra Pak strategy the company will focus on improved performance. During 2012 Tetra Pak reviewed costs in detail and developed restructuring measures including adjustments of its manufacturing footprint.

# SIDEL - A YEAR OF CONSOLIDATION

For Sidel 2012 was a year of consolidation. Sales were flat due to customers' view of economic uncertainties with investing in capital equipment. The company continued to work diligently on costs and productivity improvements. An important event was the rollout of the new modular platform Sidel Matrix™ for complete line solutions to customers. The development team at Sidel has been inspired by the car industry – and has created flexibility for customers by introducing a modular platform that will challenge the conventions of PET container production. This modular approach will allow customers to pick and choose the combination of equipment that works best for their business. Over the next few years. Sidel expects the transition to these products to be finalized, along with an efficient service

#### DELAVAL - SIGNIFICANT CHANGES IN THE MARKET

DeLaval increased net sales by 2 per cent in 2012. The company experienced very uneven development during the year due to drastically changed market conditions. In the first half of 2012 the investment climate was very positive and the company enjoyed very strong growth. During the second part of the year, weather and climate factors had a significant impact on the market. Drought in the Americas and flooding in Asia made feed prices skyrocket. At the same time an increase in milk production in Australia and New Zealand reduced the price of milk. Higher feed prices, lower world milk prices and the uncertainty of the negotiations on the EU's Common Agricultural Policy (CAP) held back capital investments in Delaval's important EU market. All in all, it was a challenging year for DeLaval but the team managed to swiftly adjust capacity to the shift in demand.

# TLI - CONSISTENT AND STRONG PERFORMANCE

Tetra Laval International (TLI) played a key role in supporting the industry groups in tracking and measuring costs and helped in establishing each group's competitiveness programme. TLI also updated the corporate governance programme and continued to follow up to ensure compliance by the different entities within the Group.

### EXCEEDING CUSTOMER EXPECTATIONS

This year's theme of the annual brochure is 'exceeding customer expectations'. To me, this is one of the most essential aspects of managing a successful company operation. Even though we are world leaders in our fields, we never take the customer for granted. Nothing happens without the customer. We must continually challenge ourselves and find ways to serve them even better. Our products, systems and service are, of course, the basis for meeting our customers' expectations, but also provide us the opportunity to exceed those expectations. Increasingly, we aim to create partnerships with our customers, to be able to develop innovative solutions that better meet their needs.

# A SOMEWHAT MORE POSITIVE OUTLOOK

Despite the challenging times in 2012 and the continuing signs of uncertainty at the beginning of 2013, there are also some reassuring signs. The US economy is improving and there seems to be a little more optimism in the European market, even though more real structural changes are needed. The developing markets of Asia, Middle East and South America continue to have good growth potential. The ability to translate this into success for our capital equipment business should improve; not least to meet the customers' needs for the replacement of old equipment with new, more productive equipment.

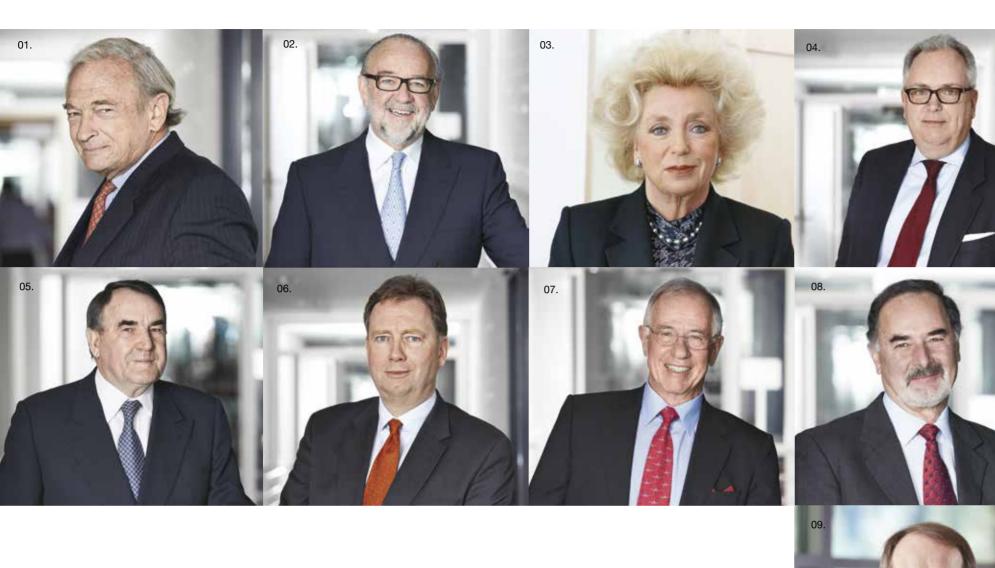
#### FOCUS 2013 - CAPTURE GROWTH AND MANAGE UNCERTAINTY

Tetra Laval looks forward to capturing growth opportunities and at the same time manage uncertainties in the market. In 2013, all industry groups will implement their competitiveness programmes, continue to invest in R&D and work hard on their respective life-cycle activities, which include an extended offering for spare parts and service for the aftermarket segment. Finally, I would like to express my gratitude for all our employees' achievements in 2012. With our hard-working and engaged people and teams across the Group there are good opportunities for an even better year than 2012.

Larry Pillard



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# 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 six 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 also takes a direct role in defining 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.

#### 01. Sir Keith Whitson

A non-executive Board Member since 2005. Sir Keith Whitson is retired Group Chief Executive of HSBC Holdings plc. He also served as a non-executive Director of the Financial Services Authority in London from 1998 to 2003. During his career with HSBC he worked in Hong Kong, USA, Germany, Malaysia, Indonesia and the United Kingdom.

#### 02. Larry G. Pillard

Chairman of the Board since 1 January 2003. Larry Pillard joined the Board as non-executive Board Member in 2001. He was previously Chief Executive of the Tate & Lyle Group since November 1996. He joined the British based sugar, cereal sweetener and starch company in 1992 as President and Chief Executive Officer of A E Staley Manufacturing Company, the subsidiary responsible for all starch operations in North America. Prior to Tate & Lyle he was with Cargill Inc for 23 years.

#### 03. Kirsten Rausing

An alternate Board Member since 1985 and a non-executive Board Member since 1991. Kirsten Rausing is a Member of the Jockey Club and a Director of the British Bloodstock Agency. She is a former Trustee of the Animal Health Trust and former Director of the British National Stud and Jockey Club Estates Ltd. In addition, Ms. Rausing is the past Chairman of the European Federation of Thoroughbred Breeders' Associations (Paris) and of the E.F.T.B.A. Veterinary Commission, as well as a past Chairman of Thoroughbred Breeders Association of Great Britain She was appointed a Trustee of the newly formed Racing Foundation (UK) in 2012; this Foundation will handle the proceeds of the British Government's sale of the Totalisator Board.

#### 04. Jörn Rausing

A non-executive Board Member of the Tetra Laval Group Board since 1991 (an alternate Board Member of the Tetra Pak Group Board since 1985). Jörn Rausing is also a Board Member of Alfa Laval AB and DeLaval Holding AB and of Ocado Ltd. 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.

#### 05. Paul Skinner

A non-executive Board Member since 2005. Paul Skinner is Chairman of Infrastructure UK, a division of HM Treasury. He was previously a Group Managing Director of Royal Dutch Shell plc and Chairman of Rio Tinto plc. He is also a non-executive Director of Standard Chartered plc and Air Liquide S.A. and a Member of the Public Interest Body of Pricewaterhouse Coopers LLP.

#### 06. Finn Rausing

A non-executive Board Member 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, Swede Ship Marine AB and Nordkap Holding AG.

#### 07. Dr. Jürgen Weber

A non-executive Board Member since 2003. Dr. Jürgen Weber became Chairman of the Supervisory Board of Deutsche Lufthansa AG in June 2003 after having served the company as Chairman of the Board of Management for twelve years. He is Chairman of the Supervisory Board of Willy Bogner GmbH & Co. KGaA and Loyalty Partner GmbH, Hapag Lloyd AG and Hapag Lloyd Holding AG and Member of the Supervisory boards of Allianz Lebensversicherungs-AG and Voith AG, all based in Germany.

#### 08. Dr. Bernd Pischetsrieder

A non-executive Board Member since 1999. Dr. Bernd Pischetsrieder has been Chairman of the Board of Management of Volkswagen AG from 2002 to 2006. He has been Chairman of the Board of Directors of Scania AB, Sweden from 2002 to 2007. He is Chairman of Münich Re AG, based in Germany.

#### 09. Jorma Ollila

A non-executive Board Member since January 2013. Jorma Ollila is Chairman of Royal Dutch Shell plc since 2006. He was Chairman of the Board of Directors of Nokia 2006-2012, Chairman and CEO, Chairman of the Board of Directors and Group Executive Board of Nokia Corporation 1999-2006, President and CEO, Chairman of the Group Executive Board of Nokia Corporation 1992-1999. He is Vice Chairman of the Board of Directors of Otava Books and Magazines Group and Member of the Board of Directors of the University of Helsinki, Chairman of the Boards of Directors and the Supervisory Boards of the Research Institute of the Finnish Economy ETLA and Finnish Business and Policy Forum EVA, and Member of the Executive Committee of the World Business Council for Sustainable Development (WBCSD).

Around the world, population growth, increasing incomes and climate change are putting ever more pressure on natural resources. Concerns are rising and companies are increasingly being held accountable for the impact of their products and their operations on the environment. We believe that only companies that embrace these challenges proactively, and turn them into opportunities, will be competitive in the future.



#### **TETRA PAK**

Understanding the trends and drivers affecting our industry is essential to running our business successfully. Increasingly, sustainability is one of those drivers.

At Tetra Pak, we have pledged to grow our business in a way that's environmentally, socially and economically responsible. We are committed to supporting and promoting the 10 principles of the UN Global Compact, addressing human rights, labour standards, the environment and anti-corruption.

The cornerstones of Tetra Pak's Sustainability commitment are:

- Food for Development
- Global Compact
- Environmental Sustainability
- Corporate Governance
- Code of Business Conduct

#### **DELAVAL**

Today we are part of a value chain that needs to increase productivity to ensure food safety and security for 7 billion people – a number that is expected to touch 9 billion by 2050. While food producers need to increase profitability and productivity, they also need to reduce environmental impact. Science is telling us to speed up the rate of change and reveals that it is on the farm that the biggest productivity gains can be made.

The term sustainable, as defined within DeLaval, is based on balancing four pillars and Food for Development:

- Environment
- Animal welfare
- Social responsibility
- Farm profitability

#### SIDEL

Sustainability and cost-efficiency go hand in hand at Sidel. From need analysis to need for improvement, the environment and your bottom line are a consideration at every step of the process. We are dedicated to helping you perform in an ethically and socially responsible manner without compromising on economic performance.

We offer you a complete range of innovative environment- and money-saving services that cover everything from equipment and systems to consulting and expertise. Our goal is to become the leading provider of sustainable, efficient equipment - helping you consume fewer natural resources, produce less waste, and generate growing profits. With our assistance and eco-responsible solutions, you can lower your environmental footprint and production costs at the same time.



#### **PRODUCTS**

At Tetra Pak we specialise in providing complete solutions for the processing, packaging and distribution of food products. Our products are specifically designed to be as economical with resources as possible. Dairy products, juices and nectars, ice cream, cheese, dry foods, fruits, vegetables and pet food are examples of products that can be processed or packaged using Tetra Pak lines. We focus on keeping the consumption of all raw materials and energy to a minimum during both the manufacturing process and distribution.

Our products are divided into several categories:

- Packages
- Processing equipment
- Filling machines
- Distribution equipment
- Service products

#### **MARKETS & CUSTOMERS**

Tetra Pak operates in more than 170 countries around the globe, employing almost 23,500 people. Our customers come from different parts of the food industry, such as the dairy, cheese, ice cream, beverage and prepared food sectors.

#### **ENVIRONMENTAL SUSTAINABILITY**

We are committed to running our business in an environmentally sound and sustainable way. We set goals for continuous improvement in our development, sourcing, manufacturing, and transportation activities. As part of that commitment, we take a long-term and lifecycle view, continually improving environmental performance, communicating openly with our stakeholders and reporting regularly on our performance.







#### **GLOBAL COMPACT**

We are a member of the UN Global compact, which brings together companies, UN agencies, labour and civil society to support ten principles in the areas of human rights, labour, the environment and anti-corruption. We also cooperate with NGOs such as WWF on forestry and climate change issues, and GAIN, Global Alliance for Improved Nutrition.

COUNTRIES COVERED

>170 11,155

NET SALES 2012

40

NUMBER OF PLANTS

2 1

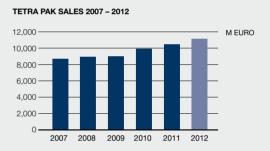
**R&D UNITS** 

TRAINING CENTRES

**16** 

NUMBER OF EMPLOYEES DECEMBER 2012

23,425



#### R&D

Our customers need faster, better and cheaper developments to reduce their operational costs and to increase performance in order to remain competitive. We invest in technology and new products in response to customer needs, consumer preference and market dynamics.







#### OUR BRAND

During the past 60 years, the Tetra Pak brand has grown to become a powerful global asset, delivering solid value to both our company and our customers. Our motto, PROTECTS WHAT'S GOOD, reflects the principles upon which we built our business and underpins our Vision, our Mission and our Core Values. It is a commitment that goes beyond the contents of the package, recognising that we also play a role in shaping better futures for our customers, our company, our employees, our supplies and the communities in which we operate.

#### FOOD FOR DEVELOPMENT

For more than 50 years, we have worked with customers, governments, international and community-based organisations and farmers to provide milk and other nutritious drinks in schools around the world. In 2012, the Tetra Laval Food for Development network supported the delivery of 8.2 billion packages of milk and other nutritious drinks to 67 million children in schools in more than 60 countries. School feeding programmes can have a considerable impact on the local community and economy. Not only do they improve the health and learning capabilities of

children, they often act as a catalyst for agricultural and economic development.

In 2012, Tetra Pak expanded its support for school feeding Programmes in a number of different countries, including China, Turkey, New Zealand, Rwanda, Guatemala and Poland. School feeding programmes play an important part in our business strategy and our commitment to dairy customers around the world to make food safe and available everywhere. We expect to see a further expansion of these programmes in the coming years.

TETRA PAK HIGHLIGHTS 2012/2013 TETRA PAK COMMENTS BY THE CEO

# 2012/2013

#### 1. Tetra Pak approved as a global supplier to Heinz

A project by Tetra Pak Processing Systems to standardise tomato pulp and engineer a line solution for the processing of ketchup. has resulted in the company's approval as a global supplier to Heinz. It's first for our company and is expected to bring new global opportunities.

#### 2. New openings launched

During 2012, the company introduced two new openings to its portfolio. HeliCap™ 27 is a one-step, re-sealable opening that opens easily and pours beautifully, thanks to its large diameter neck and increased pouring area. LightCap™ 24 is a new twostep opening designed to use as little plastic as possible ... making it the lowest-cost screw cap in the Tetra Pak portfolio.

#### 3. DreamCap™ 26 awarded a Scanstar

DreamCap 26 has received a prestigious Scanstar award in recognition of the new opening's functionality and convenience. Scanstar is an annual packaging competition started in 1969 by the Scandinavian Packaging Association.

#### 4. First Tetra Fino® Aseptic (TFA) **Eco Flexo printing order in Pakistan**

The Tetra Pak converting factory in Lahore has produced its first customer order with TFA Eco Flexo printing, for Haleeb Foods. Eco Flexo offers low-cost photographic printing using uncoated paper – a simple way to deliver greater brand differentiation and impact on the shelf.

#### 5. Coconut Knowledge Centre opens in Singapore

Tetra Pak has opened a Coconut Knowledge Centre in Singapore, with the aim of extending the company's leadership in coconut beverage innovation. The investment is designed to meet customer needs across the growing Southeast Asian market and to improve the company's competitiveness in other parts of the world.

#### 6. Aseptic technology aids milk distribution to hungry Texas children

Tetra Pak and Dean Foods have donated 250,000 8-oz Tetra Brik® Aseptic single-serve cartons of milk to the North Texas Food Bank in the US, to support the organisation's "Food 4 Kids" programme. The programme provides backpacks of healthy food on a Friday afternoon to young children who would otherwise have very limited access to food during the weekend.

#### 7. Tetra Classic® Aseptic packages now available in the US

Tetra Pak has introduced an automated secondary packaging solution and a reengineered Tetra Pak® A1 filling machine that meets some very specific food safety standards in the US. As a result, co-packer California Aseptic Beverages has now installed a new line, marking the return of the Tetra Classic Aseptic package to the North American market after an absence of almost 30 years. Food manufacturer Kids' Healthy Foods chose Tetra Classic Aseptic packages for its juice and flavoured water product Mickies Slices, which are supplied to several US schools and will be available at retail outlets this year.

#### 8. French retailer Casino chooses **Tetra Recart cartons**

Casino has introduced chopped tomatoes and passata, a purée made from ripe tomatoes, in Tetra Recart® packages to its stores across France. The retailer has also selected Tetra Recart® packages for three new soups.

### consumer awareness of recycling

carton packages for milk, juice, yoghurt and other liquid foods for recycling. As a result, the country's carton recycling rate increased from 23.7 per cent in 2011 to 29 per cent in 2012. Behind the increase lies a year-long cooperation between Tetra Pak and WWF involving a variety of outreach projects through different channels. This included "The hunt for forgotten cartons", a school competition that reached more than 61,000 children across the country. The ambition over time is that at least 50 per cent of all beverage cartons in Sweden will be collected and recycled into new products.

Tetra Pak is supporting a school milk programme run by the municipality of Dakar. Our company provides administrative expertise and guidance on milk procurement. distribution and storage; best practice on when and how milk is consumed; and education campaigns to help raise awareness of milk's benefits among parents. The milk programme started in 2010, and has now

### 9. WWF and Tetra Pak raise

In 2012, Swedes returned 10,978 tons of

#### 10. School milk increasing in Senegal

reached 82,000 children.











# Solid results by our Packaging and Processing business

Against the headwinds of increasing global competition, on-going economic uncertainty and softening domestic growth in several key markets, our Packaging and Processing businesses delivered solid results in 2012, as we sharpened our focus on costs, competitiveness and customers.

Total group net sales for the year climbed 4.3 per cent compared with 2011, led by solid growth in packaging material, but also reflecting another strong year for capital equipment and technical sales in both Processing and Packaging.

#### **POSITIVE DEVELOPMENT** IN MOST MARKETS

Year over year, packaging material volumes were up 3.7 per cent, as buoyant demand in East Europe & Central Asia, Greater Middle East and South & Southeast Asia more than offset declines across Western Europe. Technical Service reported doubledigit sales growth for the year, with particular strength in many of our developing markets, while Processing Solutions consolidated the significant gains achieved in 2011, reporting a further 5.2 per cent increase in sales in 2012.

These results reflect the outstanding contribution of Tetra Pak employees across the globe; and I take this opportunity to thank the whole company for their commitment, drive and professionalism through a difficult and sometimes distracting 12 months, when we initiated a range of organisational change activities to help secure our long-term competitiveness.



#### LAUNCH OF OUR COMPETITIVE-**NESS PROGRAMME**

The company-wide "competitiveness programme", launched at the start of 2012, is designed to accelerate the implementation of our 2020 Strategy, with specific emphasis on improving operational efficiency, prioritising investments, reducing costs and strengthening our value proposition to

And the imperative of doing so grows ever-more evident, as competition across all areas of our business becomes increasingly fierce.

TETRA PAK COMMENTS BY THE CEO

#### **INTENSIFYING COMPETITION**

During 2012, plastics manufacturers continued to advance their technologies - particularly in the areas of compact, low volume and aseptic filling equipment - while further reducing total systems costs. Traditional carton competitors, as well as non-system suppliers of packaging material, expanded their capacity in some of our key geographies, and increased their presence in places like China, Brazil, the Middle East and Europe. The capital equipment sector saw the emergence of strong local players from China, intensifying competition in an already highly competitive business, with offerings in both processing and packaging. And we saw further consolidation among our customers, with more and more of them switching to multiple-supplier strategies, and testing the water with alternative packaging providers.

In this environment we remain sharply focused on maintaining our competitive edge. And we are confident that we can do so.

### INCREASED SALES IN MANY MARKETS

Indeed, in 2012 we significantly increased sales in many markets, with particularly strong year-over-year improvements from our businesses in South & Southeast Asia, Sub-Sahara Africa and Greater Middle East, Central & South America also reported solid revenue growth, driven by strong gains in Processing, while sales in North America continued their steady advance, and East Europe & Central Asia returned to growth after last year's disappointment. By contrast, our sales in China slowed; falling from its double-digit trajectory as increased local competition, declines in the country's overall domestic growth rates and the impact of negative publicity for one major customer all took their toll.

### STRONG ORDER INTAKE FOR PROCESSING

For our Processing business, order intake during 2012 reached record highs, with full year numbers up 11 per cent from 2011. Four new-generation

In 2012 we significantly increased sales in many markets, with particularly strong year-over-year improvements from our businesses in South & Southeast Asia, Sub-Sahara Africa and Greater Middle East. Central & South America also reported solid revenue growth, driven by strong gains in Processing, while sales in North America continued their steady advance, and East Europe & Central Asia returned to growth after last year's disappointment.

products for the ice cream sector sparked particularly strong interest, and we anticipate an increase in sales after their commercial release later this year. We see similar potential for our new Echo Centrifugal Separator, also due for release in 2013, which operates at the same capacity and milk separation efficiency as our existing separators, while using 30 per cent less energy.

# TECHNICAL SERVICE DOUBLE-DIGIT GROWTH

In Technical Service, we made solid headway, achieving double-digit revenue growth as our customised service solutions gained ever-greater traction. Sales of Service Contracts, offering different levels of guarantee depending on an individual customer's needs, advanced especially well in 2012; these products now account for around 20 per cent of our total Technical Service business. And the take-up of our Value-added Service offerings, including Operational Cost Guarantees, also gathered momentum, most notably in Greater China and in Europe.

# SEVERAL NEW, INNOVATIVE PACKAGING PRODUCTS

Within our Packaging business, 2012 saw the launch of several new products, as we continued to focus our innovation agenda on differentiation and enhanced functionality. Portfolio additions during the year included: two new shapes for the Tetra Gemina® Aseptic range, Crystal and Leaf; two portion pack variants of the very distinctive Tetra Brik® Aseptic Edge; HeliCap<sup>™</sup> 27 for family packs, a low-cost one-step opening that is easy to grip, effortless to open and offers excellent pouring characteristics; and Tetra Evero® Aseptic Separable Top, an adapted version of the aseptic carton bottle we launched in 2011, that enables



consumers to swiftly separate the polyethylene top from the carton sleeve for easy recycling.

There is no doubt that the product development roadmap we put in place a few years ago is bearing fruit, delivering game-changing additions in both family packs and portion packs ... new formats, new shapes, new openings and new sizes ... that have met with strong approval from both customers and consumers. None more-so, perhaps, than the Tetra Prisma® Aseptic 330 DreamCap™, which has seen outstanding success since its launch in 2011, stamping its mark as a hugely popular choice for on-the-go beverage consumers.



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TETRA PAK COMMENTS BY THE CEO

During 2012, we also made further progress towards realising our environmental ambitions. We lifted our recycling rate by 1.3 percentage points, to almost 23 per cent of packages sold; moving one step closer to our 2020 recycling goal of 40 per cent.

During 2012, we also made further progress towards realising our environmental ambitions. We lifted our recycling rate by 1.3 percentage points, to almost 23 per cent of packages sold; moving one step closer to our 2020 recycling goal of 40 per cent. We increased the number of FSC™ labelled Tetra Pak cartons on retail shelves by 43 per cent, to more than 26 billion packages worldwide. And we made further progress in our quest for a fully renewable package, expanding our use of bio-based polymers for caps and closures, and exploring the material's feasibility for polymer films.

# INVESTMENT FOR LONG-TERM SUCCESS

Through the year, we continued to invest in the facilities, activities and people that will help strengthen our competitiveness and ensure our longterm success. Most notable in that regard: we started up production from new factories at Chakan, in India and Imatra, in Finland; at our Hohhot facility in China we commissioned a second laminator and will shortly bring on line a second printer, increasing capacity at the plant from 10 billion to 20 billion cartons per year; we installed a new laminator at our facility in Izmir, Turkey; and we opened a Coconut Knowledge Centre in Singapore, with marketing

experts, food technologists and engineering specialists on hand to help our customers develop, test and market innovative coconut beverages for consumers worldwide.

2012 marked the 60th anniversary of Tetra Pak's first ever filling machine delivery ... to a small dairy in Lund, Sweden.

We've come a very long way since that time; last year, we delivered more than 500 new filling machines to customers across the globe, and put around 173 billion packages onto retail shelves in more than 170 countries.

# WORKING FOR AND WITH OUR CUSTOMERS

Of course, the packaging and processing portfolio we offer today is very different from the early 50s. But while the technology and products may have changed beyond all recognition, the mantra on which the company was built remains strong: to work for, and with, our customers to provide preferred processing and packaging solutions for food.

It is an approach that has brought us considerable success in the past; and, I am confident, it will continue to bring us success as we move through 2013 and beyond.

Dennis Jönsson













- 01. **Dennis Jönsson** President & CEO
- 02. **Nils Björkman** Commercial Operations
- 03. **Bruce Burrows**Finance & Business Transformation
- 04. **Michael Grosse**Development & Service Operations
- 05. **Tim High** Processing Solutions
- 06. **Chris Huntley**Corporate Communications
- 07. **Andreas Karl** Human Resources
- 08. **Sam Strömerstén** Supply Chain Operations
- Maria Varsellona General Counsel

TETRA PAK STRATEGIC DIRECTIONS

#### VISION

### We commit to making food safe and available, everywhere

#### MISSION

We work for and with our customers to provide preferred processing and packaging solutions for food.

We apply our commitment to innovation,

our understanding of consumer needs and our relationships with suppliers to deliver these solutions, wherever and whenever food is consumed. We believe in responsible industry leadership, creating profitable growth in harmony with environmental sustainability and good corporate citizenship.

#### **CORE VALUES**

There are four values that guide the company's 23,000-plus employees in their day-to-day business:

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

#### **Customer Focus & Long Term View**

We ensure we add value and inspire our customers because we recognise that they come to us by choice. We dare to

lead with a focus beyond tomorrow and take opportunities to learn and grow.

#### **Quality & Innovation**

We do not compromise on quality. We relentlessly drive for better, fit-for-purpose solutions and breakthrough innovations.

#### Freedom & Responsibility

We have the freedom to take the initiative and act decisively in the best interests of Tetra Pak and our customers. We take responsibility for our actions and contribute to the communities in which we operate.

#### Partnership & Fun

We respect and rely on one another and all our stakeholders for exceptional results. We enjoy working together and celebrating our achievements.



#### STRATEGY 2020

Tetra Pak's strategy is built on a 10-year business plan that was launched in 2010. Called Strategy 2020, its goal is to ensure that Tetra Pak stays ahead of its competitors and that the company is properly positioned to face the challenges, and to capture the opportunities, of its fast-changing industry. The goals of Strategy 2020 are encapsulated in four strategic priorities: Growth; Innovation; Environment; and Performance.

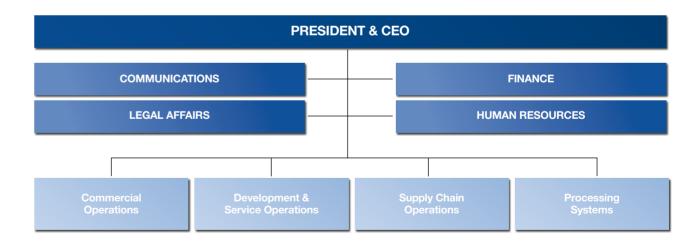
**GROWTH: GROW IN ALL MARKETS** 

**INNOVATION:** ACCELERATE VALUE-DRIVEN INNOVATION

**ENVIRONMENT:** DRIVE ENVIRONMENTAL EXCELLENCE

PERFORMANCE: STRENGTHEN OPERATIONAL PERFORMANCE

#### **ORGANISATION**



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TETRA PAK MARKET

# The Tetra Pak market

#### THE PACKAGING MARKET

Last year, consumers across the world purchased around 1,050 billion litres of packaged liquid food, an increase of approximately 3.5 per cent compared with

Of the total volume sold, water accounted for 27 per cent, carbonated soft drinks for 19 per cent, and liquid dairy products for 16 per cent.

Tetra Pak's own packaging material sales last year totaled slightly more than 173 billion cartons, or 77 billion litres equivalent, representing around 8 per cent of the global packaged liquid food market. In litres equivalent, this was 2.1 per cent higher than in 2011, a little lower than the overall global growth in this sector.

Tetra Pak's packaging customers are involved in many different sectors of the food industry, including dairy, soft drinks, soy products, wine, juices and prepared food. They are made up of a variety of international, regional and local companies.

Among the largest geographical markets for Packaging Solutions at Tetra Pak are China, Brazil, Russia, Iberia, the USA and Mexico.

#### THE PROCESSING MARKET

The processing market for Tetra Pak's equipment and solutions consists of the following categories; dairy, beverage,

cheese, ice cream, prepared food and cosmetics. Within these categories Tetra Pak provides processing lines including equipment, engineering, design, installation, project management and services.

Tetra Pak deals with multinational and local food producers of various sizes, supplying many of them with integrated processing and packaging solutions. The company's largest geographical markets for Processing Solutions are China, the USA, Brazil, Russia and Germany.

#### **KEY MARKET DRIVERS**

The key drivers of change in the packaging and processing markets are:

- Demographics
- Economy
- · Environment/sustainability.

#### CHANGING DEMOGRAPHICS

- Continuous population growth: there will be an estimated 0.8 billion more people on the planet in 2020 than there were in 2010.
- Extensive urbanisation: in 2011, half of the world's 7 billion population lived in cities. By 2030, that will rise to 59 per cent, or 4.9 billion people.
- · An ageing population: the number of over-60s will increase by 25 per cent within the next decade

#### CHANGING ECONOMY

- · Economic development is strengthening the BRIC countries' (Brazil, Russia, India and China) position in the top 10 economies globally.
- · Developing markets are rapidly becoming more sophisticated, which brings new challenges.
- · A billion new consumers will be joining the existing 1.7 billion middle-class consumers by 2021, 30-40 per cent will come from China.
- · Globalisation and the redistribution of economic power will continue.

#### CHANGING ENVIRONMENT

- · Important natural resources are under threat, including a scarcity of water and depletion of forests.
- · Stricter legislation and taxes related to protecting the environment are being introduced across the globe.
- Environmental innovations continue, with a focus on reducing the environmental footprint.

#### **PACKAGING INDUSTRY MEGATRENDS**

These changes have direct implications for the food packaging and processing value chain. Tetra Pak has identified six

megatrends which will affect the business environment for the packaging industry during the next decade:

- · The opening up of the packaging industry market; with new business models, more packaging solutions and alternative supply chain structures emerging.
- The increasing scarcity of natural resources and land, coupled with the rising demand for food packaging; bringing higher costs and a sharper focus on waste reduction.
- The acceleration of environmental innovations for the purpose of positioning and differentiation.
- The increasing importance of product differentiation (formulations, textures, ingredients, etc.), package differentiation (sizes, shapes, materials, etc.) and complete product information, driven by consumer demand.
- The ever-greater strength of the modern retailers and the continued consolidation of food manufacturers.
- · The rising demand for food safety, product quality and nutritional value, driven by authenticity and health concerns.

#### **CONSUMER TRENDS**

Analyzing consumer attitudes, behaviour and demands is critical for the success

of the packaging industry. Some of the key consumer trends that we see in markets across the globe today are:

#### LOOK GOOD, FEEL GOOD

Attitudes to health & well-being around the world differ:

In Developed countries: Health is linked to proactive steps to fight overweight and obesity

In Developing countries: Looking good is the priority and consumers are more at ease with their bodies than in developed countries.

#### SAFETY FIRST

Consumers everywhere seek safety and reassurance

In Developed countries: Taking basic safety for granted, consumers are more proactive in getting information to take the smart choice

In Developing countries: Consumers still face fundamental concerns about food safety, with brands playing a key role in offering reassurance.

#### **EASY GREEN**

Consumers worry about the environment, but mainly take simple steps and are reluctant to spend extra or compromise on quality. Overwhelmingly, they expect companies to take the initiative.

#### **EXPERIENCING CURIOSITY**

Experiences are becoming increasingly important to curious consumers; in the Developed and wealthier Developing world they are expressing individuality through purchases and experimenting.

"Word of mouth" is also part of this curious attitude, and it's going global thanks to online networks.

#### SIMPLY NOW

Consumers are increasingly juggling overlybusy lives, and looking for convenience, constant connectivity and technology to help them simplify and make the most of their on-the-go lifestyle. Food & drink consumption on-the-go is very much a feature of this way of life.

Sources: Roper Global Consumer Trends 2013;

#### TOP TEN MARKETS **IN PACKAGING**

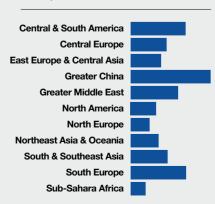
Based on 173 billion packages sold in 2012

- 1. CHINA
- 2. BRAZIL 3 USA
- 4. RUSSIAN FEDERATION
- 5. MEXICO
- 6. SPAIN
- 7. THAILAND
- 8. JAPAN

#### 9. PAKISTAN 10. SAUDI ARABIA

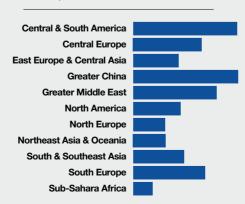
#### **FILLING MACHINES IN PRODUCTION** BY GEOGRAPHY, 2013

Total 8,708



#### DISTRIBUTION EQUIPMENT IN **PRODUCTION BY GEOGRAPHY, 2013**

Total 17,422



#### TOP TEN MARKETS **IN PROCESSING**

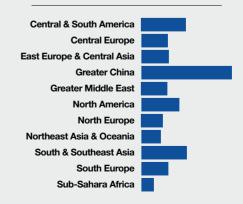
Total Processing net sales 1.290 million €



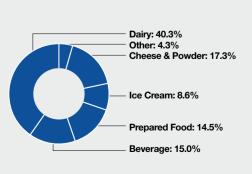
- 3 BRAZII
- 4. RUSSIAN FED.
- 5. GERMANY
- 6. JAPAN
- 7. UK 8. FRANCE
- 9. INDONESIA
- 10. NEW ZEALAND

#### **BRANDED PROCESSING UNITS DELIVERED BY GEOGRAPHY, 2012**

of 1,971 units



TETRA PAK PROCESSING **SOLUTIONS ORDER INTAKE** BY CATEGORY, 2012



TETRA PAK CUSTOMERS

#### MEETING CUSTOMER NEEDS ALL OVER THE WORLD

Tetra Pak offers complete solutions for the processing, packaging and distribution of food products. Dairy items, juices and nectars, ice cream, cheese, dry foods, fruits, vegetables and pet food are examples of everyday foodstuffs that can be processed or packaged using Tetra Pak lines. The company's solutions are divided into different categories such as packages, processing equipment, filling machines, distribution equip-

ment and service products. Customers come from different parts of the food industry, and include an array of international, regional and local companies. Today, Tetra Pak packages are marketed in more than 170 countries.

Some of the most important issues for customers today are costefficient production, production security, safe automation systems, innovation and diversity, food safety and attractive packages that will sell. Tetra Pak's extensive offering – from product design to consumer trend insights, from complete production lines to customised service solutions – provides peace of mind across all of these areas, and more

# Increasing productivity in Inner Mongolia

Yili is Tetra Pak's largest dairy customer and one of the most competitive large-scale dairy groups in the world. With a focus on providing its customers with quality products at the best possible price, Yili is constantly looking for ways to optimise its business and remove unnecessary cost. Since 2010, Tetra Pak has been able to improve operations at Yili's flagship plant in Jining, Inner Mongolia, increasing Overall Equipment Effectiveness (OEE) by 11 per cent. The plant packs about 600 tonnes of milk products daily.

Tetra Pak has been working with Yili since 1997 and began an Operational Cost Reduction project in 2007 in one of Yili's plants. Yili was expanding rapidly and wanted to maximise production as well as get better returns on investment.

Until then, Yili had preferred to perform equipment maintenance themselves. Tetra Pak's challenge was to show what value would be added by its service solutions. The answer was to offer Yili an Operational Cost Guarantee, with the aim of increasing OEE

by 9 per cent on six Tetra Pak filling lines. It was a tough target. Yili already had an OEE of 65 per cent: the company based its calculation on every available minute for production including, for example, public holidays, which are normally deducted from the OEE calculation.

Nevertheless, an improvement in performance at the Jining plant was quickly achieved by using the latest version of the Tetra Pak Maintenance System combined with continuous improvement methodologies, training and on-site support. The focus was on hands-on activities in the daily operation, and positive benefits were visible after only four months. After two years, the designated lines had achieved an OEE level exceeding the initial target set – reaching 76 per cent by the end of 2012.

Thanks to this improvement, Yili increased output by 50 per cent from the same installed base. That adds up to an extra 250 million packs and Jining is now one of Yili's best performing plants.



# **Strong relationship with Clover in South Africa**

Clover, a leading South African dairy producer, and Tetra Pak have forged a strong working relationship over several years, based on their joint belief that collaboration benefits everyone. It is an attitude that has helped them achieve optimal line performance for Clover's Tetra Top TT/3 XH filling machines. Initially the machine efficiency was too low, but together Clover and Tetra Pak developed a successful solution.



clover worked with letra Pak to identify and correct the root causes of the problem. A thorough process of investigation led to the discovery that operators were cautious of the new equipment, which was having an impact on the way they were using it. Once this core issue was identified, the two companies resolved to find a solution together.

#### IN SHORT 2

#### STAFF TRAINING AND EMPOWERMENT

The target was to have 100 per cent of Clover's staff certified to run the lines. All had maintenance and automation training, and some have also had advanced training on key components. All maintenance courses were held at Tetra Pak's headquarters in Lund, Sweden, while other courses were delivered on site.

# IMPROVING OPERATIONAL PERFORMANCE

The first step to ensuring that Clover got back on track came in agreeing a common goal that the two companies could work on in close partnership. The next steps were to form a team to regularly review performance, set up an improvement project, and establish working routines.

To support these initiatives, Clover created new organisational structures and conducted comprehensive staff training. They also saw the need to improve communication at production level, and so began daily meetings to which production, technical and quality control people were invited. This team followed up on the Key Performance Indicators (KPIs), and looked at other production statistics and action lists from the previous day. If any KPIs required action, the right people could quickly be trained to understand what was needed and to carry out the tasks required.

### A SUBSTANTIAL IMPROVEMENT IN MME

This framework for proactively identifying and addressing issues led to a marked rise in MME, which is now above 93 per cent – and still improving. Clover Clayville now operates its Tetra Top lines with a high degree of independence, and the company is benefiting from continual performance improvements.

"Adopting a clear plan on understanding and addressing issues on the production line, empowering our staff to take ownership and working closely with Tetra Pak on the framework for introducing these improvements has allowed us to set ambitious yet attainable performance targets," said Chris Lerm, Executive Director, Brands and Marketing at Clover.

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**IN SHORT 1** 

**CREAM OF THE CROP** The Clover

factory in Clavville produces items

Tetra Top packages. The company

ml, 330 ml and 500 ml) packages.

such as full-cream, semi-skimmed and

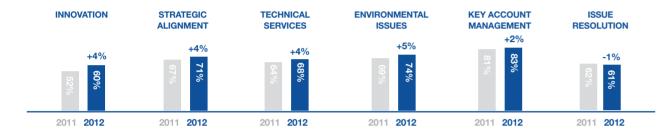
vanilla milk with extended shelf life in

uses Tetra Top base (1 I) and mid (250

TETRA PAK **CUSTOMERS** 

# Improvement in Customer Satisfaction

In 2012, Tetra Pak's score from its annual Customer Satisfaction survey increased quite markedly. But although the company scored well in areas like innovation, strategic alignment, technical services, environmental issues and key account management, there is clearly still room for improvement on several other fronts, most notably when it comes to issue resolution.



To ensure that Tetra Pak better understands how customers feel about its products and services, each year the company conducts a satisfaction survey, gathering feedback and opinions in a consistent manner from a broad cross-section of customers.

In 2012, more than 1,800 people from 240 companies took part in the survey, providing priceless insight to what customers expect from our company, how well it is meeting those expectations and where it needs to improve. The results were a notable improvement on 2011, highlighting progress in several key areas. But they also showed, quite clearly, that there is opportunity for improvement.

#### **STRONG ON INNOVATION**

Tetra Pak improved the most in the area of innovation. It was a great result, and a clear signal that our focused innovation efforts in recent years are having the desired effect.

"In an ever-more competitive world our customers need to move fast, and so do we. Meeting their needs means continually developing the products and services they require... ensuring we have an innovation pipeline that delivers value to their business today. and will continue to do so in the future," says Nils Björkman, Executive Vice President Commercial Operations & Cluster Organisation. "In 2012, we showcased a range of exciting new products at the Anuga Food Technology fair in Germany," he says. "Among them were Tetra Evero® Aseptic, Tetra Prisma® Aseptic, DreamCap™, Tetra Gemina® Aseptic Leaf and Crystal, as well as our high speed filling equipment plus a range of new automation and service products. The survey results would suggest this had a strong positive impact with customers."

# ISSUE RESOLUTION REMAINS IMPORTANT

In the survey, customers highlighted issue resolution as an important area of focus for Tetra Pak in the months ahead.

"We need to get this right," says Björkman. "Should a customer face an issue, we must contain the problem as swiftly as possible and then rapidly find the root cause to prevent it from recurring."

"We need to mobilise people with the right competences to speed up issue resolution, and we need to be more transparent in sharing information with colleagues and customers," he adds. To improve its response to such issues, Tetra Pak has invested in new way of working, including a structured problemsolving methodology, and a tool to capture issues and create transparency around them, with the aim of resolving issues in a consistent, comprehensive way.

"Issue resolution, system performance and technical services have proven to be clearly linked and, together, play a very critical role in driving customer satisfaction and securing business growth. To be world class in all three areas is what our customers expect from Tetra Pak." says Björkman.

#### **WORKING WITH CUSTOMERS**

The survey also highlights the imperative for Tetra Pak to speed up its decision-making, shorten the negotiation process and reduce the time it takes to sign contracts.

"The customer satisfaction survey will continue to be an important part of Tetra Pak's annual business cycle. It is a great tool, of course, to see where we're making progress. But it is even more useful in helping us assess where we must focus additional effort, to ensure we meet or exceed our customers' expectations in every area of our operation," concludes Björkman.

# Big potential in low-income households

During the past few years Tetra Pak has put more emphasis on the DiP (Deeper in the Pyramid) segment – low-income households in developing markets like India, China, Brazil and Indonesia, who make up about 40 per cent of the world's population. This segment has enormous business potential, and serving such consumers goes hand-in-hand with reducing poverty and improving nutrition.

Rapid growth in emerging markets over the past decade has put consumer goods within reach of millions of low-income households for the first time. In 2004 the late business guru C.K. Prahalad put forward a new idea for helping to alleviate some of the socio-economic problems of several billions of the world's population in a way that would also be beneficial for business. The idea was to reach out to those billions in developing countries with products that would meet their specific demands.

The principles of Prahalad's book, The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits apply to many industries including the dairy sector.

# OPPORTUNITIES FOR THE DAIRY INDUSTRY

Tetra Pak has taken inspiration from Prahalad, and developed its own 'pyramid' to identify opportunities for dairy companies to provide healthy, nutritious and safe-packaged products to consumers in developing countries – where demand for Liquid Dairy Products (LDP) is steadily rising.

Research found that about 2.7 billion consumers are living in developing markets on \$2-\$8 a day. They make up about 50 per cent of the combined population of all developing countries – with half of them living in India and

China. Consumption of LDP by this group is expected to grow from about 72.5 billion litres in 2011 to almost 80 billion litres in 2014, according to Tetra Pak's studies.

"Deeper in the Pyramid, or DiP, consumers represent one of the biggest growth opportunities for the dairy industry in the coming years," says Tetra Pak President and CEO Dennis Jönsson.

"The key to tomorrow's success for the dairy industry – small, medium and multinational players – is reaching these emerging consumers today."

It is a straightforward premise: although they are living on extremely low incomes today, they may become tomorrow's middle class. Indeed, the proportion of the world's population living on a daily income of more than \$8 is expected to increase from 52 per cent to 66 per cent by 2020.

Reaching these consumers will require new and innovative ways of working. Tetra Pak has created a special DiP unit to support customers operating in this segment. This unit has many functional areas, such as consumer knowledge, Tetra Laval Food for Development programs, product development centres and a broad portfolio with a diversity of products and solutions for different groups, including kids, families and on-the-go consumers.



# AVAILABILITY AND AFFORDABILITY ARE KEY ISSUES

Quite clearly, success in this market depends on offering nutritious, attractive, high quality products that are also affordable to DiP consumers. And that means focusing not just on the cost of the package, but also on the customers' operational costs. By properly understanding the value chain, and by developing solutions for milk products and packages that are driven by price point, Tetra Pak has taken significant steps forward in both of these areas, and is now helping customers build their presence in this fast-developing, and extremely exciting, segment.

# A taste of what can be served up from a carton

Tetra Recart® has set up a food development centre in Lund, Sweden, to create new recipes for packaged food and test them on site. The goal is to find ways to help customers to extend their ranges by using carton packages instead of cans or glass jars.

"Preparing sauces and ready meals for packaging is more complicated than normal cooking. When you prepare a recipe in a kitchen you pretty much know how it's going to turn out," says Kaj Knudsen, Chef and Culinary Advisor, Science & Engineering, at Tetra Recart. "But when ingredients are processed, they react in different ways, and the taste and consistency of the finished product can change dramatically."

Which is one of the reasons why the company established a food development centre in Lund, Sweden. Equipped with a cooking station, a filling machine and a sterilisation and pasteurisation area, customers' existing recipes, together with new ones developed by Tetra Recart, can be tested in small batches to better understand what works, and what doesn't.

In trying to help customers extend their product range and replace cans with carton-based packages, Knudsen has developed a range of recipes to show customers what they might offer to consumers.

"We try to develop packaged dishes that no one would have thought of before," explains Knudsen, "going beyond soups and sauces, and looking to create new, interesting and appealing dishes that will be attractive to consumers."

# MAKING LIFE SIMPLE FOR THE CONSUMER

At the same time, Knudsen and his team also look at well-established home-cooking recipes, trying to work out how life might be made simpler for consumers, by providing ready-made components that work well in a package.

"It won't work with everything," says Knudsen, "but while you may not be able to package pastry, for example, you can certainly do so with a topping, delivering products with exceptional taste, texture and appearance," he explains.

Coming from a research and development background, working with Findus and Nestlé, and spending parts of his career in England, Italy and the US, as well as Sweden, Knudsen has a sound understanding of what works...

both when it comes to processing and packaging food, and in terms of appealing to the huge range of consumer tastes in different parts of the world.

"We host regular customer visits at the food development centre, as well as meeting them on their own sites, supporting them in the creation of new packaged products that will delight their consumers, build their business and create new opportunities for Tetra Recart. That's good for everyone," he concludes.



# DreamCap™ successfully introduced in the US

With the introduction of the DreamCap closure in North America, Tetra Pak has set a goal of doubling its market share in the beverage segment. The ambition is to offer an enhanced drinking experience, but at similar levels of customer system cost as the current existing Tetra Pak offerings. Packages with DreamCap closures are particularly targeted at young people 'on-the-go'.

The introduction of DreamCap came in response to a clear competitive gap. Because while Tetra Pak's portfolio of portion packages offered excellent hygiene and reasonable functionality, the company's range of straws, pull tabs, caps and closures could not match the 'drink from' experience being offered by some other packaging suppliers.

So DreamCap was born: a one-step screw cap closure offering convenience to consumers on the move, while optimising beverage flow in a way that greatly enhances the drinking experience. And the closure, which is already being used by several prominent brands, is clearly making its mark with on-the-go consumers.

# DEVELOPMENT BASED ON CONSUMER INSIGHT

On-the-go consumption occasions are those when a consumer is en route from one location or venue to another, for example: drinking when walking; drinking non-alcoholic beverages when driving; drinking when on public transport.

# CONVERTING OTHER CLOSURES TO DREAMCAP

Armed with this research, Tetra Pak then embarked on a comprehensive design programme that included flow studies and ergonomic analysis to develop DreamCap, which it launched in 2011. Since then, the North America team has been steadily converting customers to the new product.

"We successfully commissioned 14 DreamCap applicators at multiple customer locations throughout the US in 2012," says Robert Graves, who heads Marketing & Product Management for Tetra Pak in North America.

As a result of these efforts, every Tetra Prisma® Aseptic 330 line in the US is now DreamCap ready.

"By the end of 2013, we hope to have converted all of our Tetra Prisma Aseptic 330 customers to DreamCap," says Graves.

#### TAKEN MARKET SHARE

With DreamCap, Tetra Pak in North America now has a competitive offering in the huge US adult portion pack market. It has already taken market share from the competition, and has opened many doors to new customers, including Monster Brands and Nutrisystems.

The product is a key element of Tetra Pak's growth strategy in North America – to capture new target groups and occasions, and accelerate current business. This, in turn, is providing a pleasing increase in sales.

"We are realising significant growth and customer feedback is overwhelmingly positive," concludes Graves.



#### FACTS

Since it was introduced globally in April 2011, the TPA 330 Sq DreamCap has been widely accepted. The product is now on the shelves in more than 25 countries, finding its way onto a whole range of products including fruit juice, coffee beverages, still drinks, nutritional beverages, nectars, coconut beverages, meal supplements, functional beverages and tea drinks.

TETRA LAVAL 2012/2013

# New consumer friendly packages of the Tetra Gemina® Aseptic family launched

In 2012 Tetra Pak introduced two new packages within the Tetra Gemina Aseptic (TGA) family – TGA Crystal and TGA Leaf. Whilst keeping the unique TGA top and elegant appearance, the packages come with an eye-catching new design and even greater functionality.

Two new packages, launched early in 2012, are building on the success of Tetra Gemina Aseptic Square. Like the original package the newcomers are being applauded for two key qualities: their distinctive and elegant shape, and their ease of pouring, thanks to a geometrical design that was developed to achieve the best possible product flow.

#### A NEW BODY STYLE

The new TGA 1000 Crystal HeliCap™ 27 maintains these attributes while offering a new body style – featuring four crystal-shaped panels – that create an appealing and differentiated product on crowded supermarket shelves. In addition, the new package uses HeliCap 27, a one-step resealable opening with visible tamper evidence, as well as a smooth pouring performance.

Initial reactions from the field test in Canada were extremely positive – with consumers and retailers praising the new package's design and the functionality. The Canadian beverage manufacturer A. Lassonde selected the new Tetra Gemina Aseptic Crystal 1000 ml package for its well-known

Rougemont brand. And since its launch in June 2012, A. Lassonde has seen double-digit growth of the Rougemont brand in the TGA 1L package.

### EXCEPTIONAL HOLDING AND POURING QUALITIES

At the end of 2012, Tetra Pak launched the third member of the TGA family – Tetra Gemina Aseptic Leaf. As with TGA Crystal, it builds on the functionality of the TGA Square package, offering a distinctive new shape with the addition of four leaf-shaped panels. TGA Leaf brings customers a package with a unique appearance while at the same time providing consumers with exceptional holding and pouring performance.

### COCA-COLA FIRST BEVERAGE COMPANY TO LAUNCH

In December, Tetra Pak and Coca-Cola Hellenic, Europe's leading manufacturer of beverages trademarked by the Coca-Cola Company, announced the first worldwide deployment of the TGA Leaf, for Coca-Cola's Dobry juice range in Russia. Consumer research

in Russia and Spain in 2012 provided outstanding results; the TGA Leaf was rated higher in visual appeal, environmental performance and functionality – easy to open, pour and re-close – than all similar packages.

All three packages – TGA Square, Crystal and Leaf can be produced on the packaging machine Tetra Pak® A3/Flex for Tetra Gemina Aseptic, offering customers significant production flexibility: three different shapes and four different sizes (1500 ml, 1000 ml, 750 ml and 500 ml for the Square shape; 1000 ml for the Crystal and Leaf shapes).





TETRA PAK **SOLUTIONS** TETRA PAK **SOLUTIONS** 

# New package turns sales around

After some years of declining sales, the Matinal brand is once again gaining market share. And a big role in its success has been played by the Tetra Evero® Aseptic package.

Since its launch in 1993. Matinal has been targeting active urban women between the ages of 15 and 44. Introduced by Lactogal, the largest dairy company in Portugal, Matinal was a completely innovative concept in the Portuguese market: a premium UHT milk with a highly sophisticated image.

The brand showed good growth for the first 10 years, after which sales started to fall, mainly as a consequence of the challenges from retailers' own brands.

In 2011, Lactogal decided to replace the original Tetra Brik Aseptic 1000 ml package with a carton that stood out on the shelves and would help underscore the premium quality of the product. The idea was to respond to evolving consumer behaviour and changes in lifestyle patterns.

"Deciding on a new packaging format for Matinal wasn't easy. We chose the one that we found best in terms of differentiation, convenience and use of natural resources," says Cristina Vasconcelos, Lactogal's Marketing



Their choice was the new Tetra Evero Aseptic Package, the world's first



"Repositioning the brand was very important to us and we were convinced that with this new package, we would be able to give the brand's sales new dynamism," says José Passinhas, CEO of Lactogal.

Matinal decided to keep its familiar branding (a tulip), helping customers to understand that while the package may be different, the product inside was unchanged in terms of quality and flavour. The result is a sophisticated and elegant package, easy to open and close, simple to serve and to store. And despite the new packaging, the shelf price has stayed the same.

#### **DECLINING TREND REVERSED**

A comprehensive communication strategy was developed to present the new Matinal package to consumers: involving a TV campaign, a Facebook page, billboards, leaflets and point-of-sale activities.

All this has meant that, one year on from its launch, the Matinal brand has reversed its declining trend, with sales volumes up by around 12 per cent, consumers very positive and the outlook very bright for this well-established, but reinvigorated product.









# Aurora brings better insight to consumers and the whole value chain

Brazilian food cooperative Aurora is harnessing its next generation traceability solution to increase production efficiency and add brand value to a newly launched UHT milk product.

The traceability solution from Tetra Pak, which Aurora calls Aurora Traced Product, brings customers and consumers more insight than ever before, with information related to each individual milk package, not just an entire lot.

The solution is based on the latest version of Tetra PlantMaster<sup>™</sup>, a factory control, supervision and operation software suite which includes a quality management system and a platform to transfer data to the internet. These innovative technologies strengthen Aurora's cooperative quality system, facilitate process control and management, and identify food origin. As well

as adding brand value, Aurora sees Tetra Pak's next generation traceability solution as an important asset in ensuring quality and facilitating product certification.

"Traceability is an essential tool for demonstrating credibility and engendering confidence with producers, customers, suppliers and consumers Working with Tetra Pak, Aurora and its customers can track foods from raw materials through to the final manufactured product. We can now monitor the production process and control quality parameters in real time," says Mario Lanznaster, President of Aurora Coopercentral.

For consumers, the new solution offers reassurance, since each individual Tetra Pak package is stamped with a unique code that enables access to

web-based information regarding the origin, processing and packaging of the product inside.

"Traceability is becoming increasingly important to securing food safety, meeting consumer demand for more informative labelling and complying with stringent regulations governing food production. Tetra Pak has developed a traceability solution that integrates smoothly with processing and packaging lines to enable liquid food producers, such as Aurora, to gain greater control over the supply chain and build ever greater confidence with their customers," says Tim High, President Tetra Pak Processing

TETRA PAK SUSTAINABILITY

# **Environmental excellence** increases competitiveness

There are a number of environmental challenges for the international business community today: how to handle waste, diminishing resources, climate change and water scarcity. Driving environmental performance is crucial to improving competitiveness, and offering the most sustainable solutions is a way of staying ahead of the competition. For that reason, environmental excellence is part of Tetra Pak's Strategy 2020.



When it comes to the environment, the company has set three very clear objectives:

- Develop sustainable products
- Reduce environmental footprint across the value chain
- · Increase recycling.

### DEVELOP SUSTAINABLE PRODUCTS

Tetra Pak aims to offer packages made entirely with materials from renewable sources, and to ensure that 100 per cent of the paperboard used in its cartons is FSC™ (Forest Stewardship Council™) certified.

The company will continue to enhance the environmental profile of its packages by encouraging responsible sourcing, promoting credible certification and increasing the use of materials from renewable (bio-based) sources.

One example is the new Tetra Brik® Aseptic Edge package. It has a strong

environmental profile. Package weight is low in relation to product weight at only 3 per cent, and FSC certified paperboard is used. The cap can be manufactured out of bio-based polymer, which comes from sugar cane. In addition, this new package improves logistics: the angled top and closure position allow 4 per cent improved pallet efficiency.

# REDUCE ENVIRONMENTAL FOOTPRINT ACROSS THE VALUE CHAIN

Tetra Pak's climate goal is to cap its carbon footprint across the value chain at 2010 levels by 2020, despite business growth.

The goal does not only cover
Tetra Pak's own operations, but also
emissions from the businesses of
suppliers and customers, as well as
the disposal of used Tetra Pak cartons.
The target can only be achieved by
working closely with all stakeholders,

with a view to reducing greenhouse gas emissions throughout the value chain. Tetra Pak will become more competitive, as will the leaner value chain. Reducing the environmental footprint involves many different elements, such as package and equipment design, environmental analysis, audits and efficiency gains in Tetra Pak factories, upgrading of customers' equipment, environmental services systems, and much more.

#### **INCREASE RECYCLING**

A further goal is to achieve a 40 per cent global recycling rate for used Tetra Pak cartons by 2020 – doubling the rate when compared with 2010. Achieving that goal requires a proactive approach to recycling in all markets.

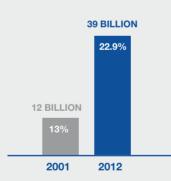
There are many ways to recycle
Tetra Pak's cartons. Because they are
made from paperboard, wood fibre can
be separated from other materials in a
paper mill and used for a wide range of
products such as cardboard packaging

and tissue paper. The plastic and aluminium lining can be converted into paraffinic oils and aluminium powders for reuse, or recovered to make composite products like roof tiles. Increasing the recycling rate involves many different factors, such as ensuring used cartons are collected; influencing local stakeholders to create recycling infrastructure; developing new and improved technology solutions for recycling; and aiding the development of a financially sustainable recycling industry. Tetra Pak supports at each step.

#### FACTS

**RECYCLING** The global recycling rate for post-consumer Tetra Pak beverage cartons increased from 13 per cent in 2001 to 22.9 per cent in 2012. From 12 billion carton packages recycled in 2001, we recycled 39 billion in 2012. Our goal is to reach 40 per cent global recycling in 2020.

#### CARTON PACKAGES RECYCLED



**CLIMATE** For 2020, Tetra Pak has a global goal to reduce the climate impact through the entire value chain: from our suppliers, in our own production, our customers' production sites and recycling of our used packages. We will ensure that our climate impact will be reduced to the same extent as our growth, and it will be at the same level in 2020 as it was in 2010.

Tetra Pak's sustainable solutions support a major effort

# NADA upgrades to fully automated production and reduces water consumption

NADA was born more than a quarter of a century ago and today supplies a wide range of high-quality juices, dairy and tomato products to Middle Eastern and Gulf countries, as well as to US armed forces.

Focusing on high quality in production, technology and services, NADA works to two important food industry standards: Hazard Analysis and Critical Control Points (HACCP) and ISO 9001. The company also meets the highest standards of environmental management, as shown by its ISO 14001 certification.

#### LOW INVESTMENT COSTS, HIGH-LEVEL RESULTS

The move to fully automated production came about as part of NADA's policy of continuous improvement. Having decided to go ahead, NADA was adamant that the upgrade be completed without disruption to production, especially during the period of Ramadan.

Tetra Pak provided a solution that scored high on flexibility: it was built upon a Tetra Vertenso® 'best practice' line with a Tetra Therm® Aseptic Drink module, two Tetra Alex® homogenizers and 15 large tanks. The line was to be controlled by a Tetra PlantMaster™ automation solution with recipe management to handle the wide product range and the need for flexibility in product changeovers.

There were a number of advantages for NADA – the lowest possible product losses, effective use of water, minimal environmental impact and low investment costs.

### TARGETS MET AND PROJECT DELIVERED ON TIME

"The new production solution met the targets for product losses and water consumption dropped significantly compared to the original process design," explains Claus From Larsen, Plant Director, NADA. "The entire upgrade project was delivered on time and without disturbances to on-going production."

The leading-edge solution installed at NADA can produce 345,000 litres of milk and 176,000 litres of juice per day. And thanks to the efficiency of its production and resource management systems, the NADA plant is now recognised as one of the most environmentally sound beverage production facilities in Saudi Arabia today.

# Successful roll-out of FSC<sup>™</sup> labelled packages



The mark of responsible forestry

In 2012, 38 per cent of the paperboard used to produce Tetra Pak cartons was FSC™ (Forest Stewardship Council™) certified, up from 34 per cent the previous year. Tetra Pak's goal is to reach 100 per cent; an ambition that becomes ever-more achievable as increasing numbers of customers recognise the value of FSC labelling, seeing the benefits it can bring to their brands, and the good that it is doing for the environment.



#### **BRINGING CUSTOMER VALUE**

Since the Forest Stewardship Council was established in 1993, consumers across the globe have gradually come to recognise the distinctive FSC logo, and to associate the products that carry the mark with sound environmental governance. Today, it is the most well know standard for responsible forest management and has widespread support from non-governmental organizations, including WWF and Greenpeace.

Tetra Pak's long-term goal is to offer all customers the opportunity to use the FSC label on their cartons, by securing 100 per cent of its paperboard supply from FSC certified forests. But that ambition is not without challenge, principal of which is the issue of limited supply – with only around 13 per cent of the world's forests currently FSC certified.

That is why the company is actively involved in projects aimed at encour-

aging forest smallholders to certify, and is working hard to show customers the benefits of adopting the FSC label.

"Without doubt, FSC labelling is gaining traction," says Erik Steijger, Product Manager Environmental Innovations at Tetra Pak. "More and more customers are now incorporating the label on their products, recognising both the merit of the system, and the opportunity it affords to differentiate their offerings in a highly competitive consumer market."

A case in point is multi-national dairy company, FrieslandCampina, which, since 2011, has used FSC certified paperboard, bearing the FSC label, for virtually all of its carton packaging on the Western European market. Around 80 per cent of its secondary packaging is also FSC certified.

In making the switch, Friesland-Campina recognised the importance of raising public awareness of the FSC brand, and increasing their understanding of what it stood for. So, in collaboration with Tetra Pak Benelux, the company launched a major campaign to educate consumers, involving on-pack messaging, promotions and a supporting website. Together, these told the story of FSC and its work to ensure the permanent existence of forest areas, through responsible forest management and conservation.

The campaign achieved success on several fronts, not least by increasing brand appeal and by winning for FrieslandCampina and Tetra Pak the FSC Retail Award for stimulating public awareness in the Netherlands.

Said Taco Kingma, Manager, Sustainable Business of FrieslandCampina in Benelux: "Consumers are increasingly looking at the environmental profile of the products they purchase. We have set clear goals on making our packaging more sustainable. FSC certification for our paperboard packaging is a major step in this development. We are glad to take this step together with Tetra Pak."

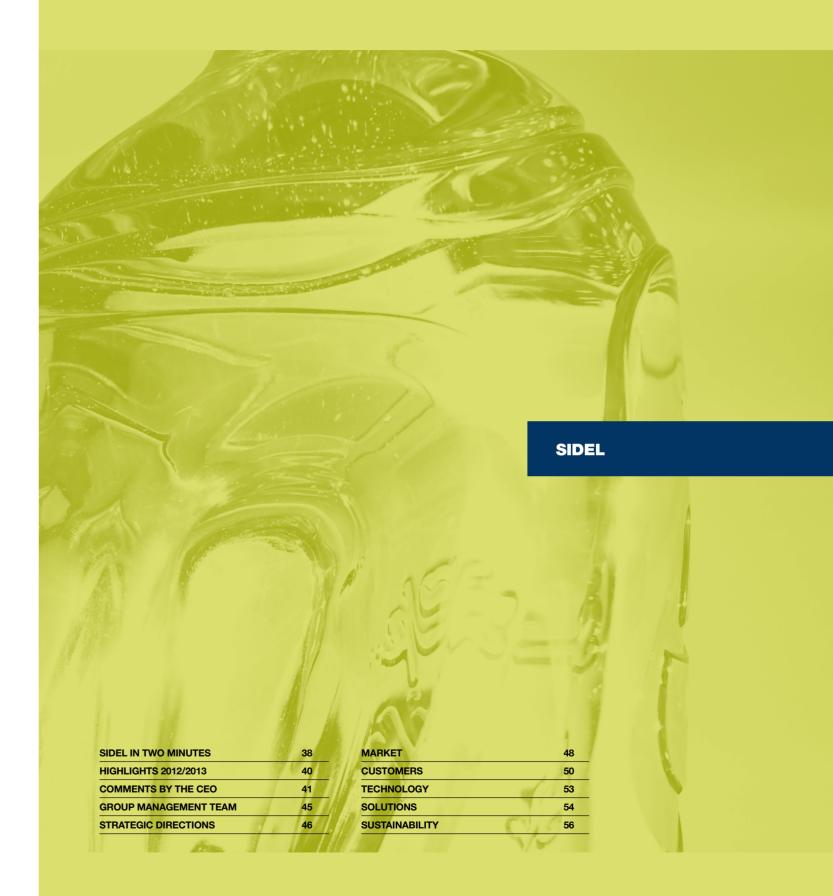
# PARTNERING WITH NGOS AND SUPPLIERS

Tetra Pak is also very active at the other end of the supply chain, working with some of the world's leading NGOs to promote responsible management of forests across the globe.

Principal among these is the company's partnership with WWF, which was established in 2006 with the specific aim of protecting, even enhancing, forests that merit special attention, given their role as habitats for species and ecological communities that are threatened or declining.

Since then, those aims have widened, with joint programmes now focused on educating smallholders and communities on responsible forestry and supporting them to achieve FSC certification.

In 2012, the two organisations agreed to extend their collaboration for three more years, continuing their focus on building a sustainable global forestry industry by balancing economic viability, social responsibility and environmental sustainability.



#### WORK WITH US AND GET A BETTER MATCH

The Sidel Group is one of the world leaders in solutions for liquid food packaging. Sidel offers equipment and services that are key to customers' decision-making in the purchase of complete bottling lines. Its activities cover the three major categories of packaging: glass bottles (disposable & returnable), plastic bottles (PET, HDPE, and PP) and metal cans.







#### OUR BRAND - A BETTER MATCH

Sidel is the leading global provider of PET solutions for liquid packaging. We are also a driving force for glass and can solutions. We are committed to being the most innovative, responsive and reliable partner, providing sustainable solutions for the beverage industry.

Headquartered in Switzerland, we have production sites in 13 countries and 30,000 machines installed in more than 190 nations worldwide. With over 5,500 employees worldwide, we provide optimal PET, glass and can packaging solutions

for water, soft drinks, milk, sensitive products, edible oils and alcoholic beverages including beer.

We aim to create value for our customers by giving them A Better Match. This is the tailored solution that caters for their needs exactly. We do this by offering flexible and reliable production systems that are easily adaptable to market developments and future technology, supported by value-added services.

COUNTRIES COVERED

>190

NET SALES 2012

1,415

NUMBER OF PLANTS

**26** 

R&D UNITS

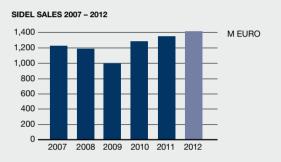
8

SERVICE UNITS

31

NUMBER OF EMPLOYEES DECEMBER 2012

5,510



#### SOLUTIONS

Sidel can support complete line engineering needs, from preliminary design to developing an investment budget, drafting plans for line layout or building the bottling line on-site. The equipment offer encompasses blow moulding machines, barrier treatment, fillers, conveyors, labellers, pasteurisers, palletiser/depalletiser, robotic equipment and end-of-line operations.

#### **MARKETS & CUSTOMERS**

Sidel has installed more than 30,000 machines in 190 countries: from China to Brazil, taking in the United States, Germany, Japan, South Africa and Russia on the way. Sidel is making its mark today as a multicultural group, employing around sixty different nationalities, totalling some 5,500 employees.



#### R&E

Sidel is a pioneer in beverage packaging solutions, especially for PET bottles. Some innovations are: the Combi system, facilitating bottle making, filling and capping for PET bottles; Predis™, a revolutionary sustainable solution to enhance aseptic hygiene. Sustainability is Sidel's new frontier for innovation.

#### CUSTOMERS

Our customers come from all parts of the beverage industry; from beer and alcoholic beverages to soft drinks, juice and mineral water. In addition, we offer solutions for other liquid food categories, such as edible oil and dairy products.

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SIDEL HIGHLIGHTS 2012/2013 SIDEL COMMENTS BY THE CEO

# 2012/2013

#### 01. Redesigning a national icon

During the year Sidel helped AB InBev to redesign the bottles of the popular Chernigivske beer, bringing a refreshing new look to Ukraine's most beloved beer. Positive past experience with Sidel and Sidel's extensive capabilities in packaging and tooling helped to influence its decision.

#### 02. Three hundred thousand moulds and still going strong

In August 2012, Sidel reached a key milestone with the creation of its 300,000th mould. This historic mould was delivered to Danone's new site at PT Tirta Cian Jur, Indonesia, and is now being used in the production of the group's Aqua beverages.

#### **03. Total Productive Management**

Experts from Sidel were presented to Nestlé waters NCE TPM strategy, which provides the insight needed to design the management friendly solutions of tomorrow. Going forward, Sidel will be able to play a key role in this approach as well. Thanks to this up-close understanding of Nestlé Waters TPM ambitions, Sidel can take into account their maintenance and management requirements directly at the design phase of the equipment.

#### 04. The New Online Look - Sidel.com

Boasting a fresh new design and user-friendly navigation, the new website offers all the latest news, insights and information. With improved features and an intuitive search facility, you can find everything you need to get A Better Match for your packaging solutions.

#### 05. Sidel wins gold with Inline magazine

Sidel's customer magazine Inline has won the Gold award for "Best Marketing or Sales Brochure or Kit – Print" at the 2012 Stevie International Business Awards. Inline convinced the jury with its highly customerrelated content and its dynamic reflection of the company.

#### 06. Sidel's DailyDose™ design concept wins silver at Pentawards 2012

Sidel's winning concept, DailyDose™, follows the move towards healthier living by offering a new way of consuming single-serve fruit on a regular basis. The innovative solution is a multipack made up of six assorted bottles reminiscent of fruit slices: a flexible concept offering one design for different products. It is ideal for on-the-go consumption as the small bottles fit into the smallest of bags. Although common in other sectors, the concept of a daily 'dose' is new to the fruit drinks market.

#### 07. Stack & Pack optimises distribution

The new stackable bottle concept Stack & Pack provides a new stacking solution for midsize bottles. Enabling ten lavers instead of previously six, Stack & Pack allows for optimised storage space, fewer pallets, less waste and cheaper and more environmentally friendly distribution.

#### 08. Online portal boosts performance

Customers worldwide seek new ways to improve already installed equipment, in order to reduce water, electricity use and CO<sub>2</sub> emissions. With its 'Options & Upgrades' online portal, available in six languages, Sidel brings the benefits of the latest packaging technology to installed equipment, resulting in increased uptime, reduced costs and greater production flexibility.

#### 09. Aseptic low-speed bottling system meets rising demand

Sidel has released a new low-output aseptic integrated blow-fill-cap solution including proven technology for the dry decontamination for preforms (Predis™) and caps (Capdis<sup>™</sup>), using no water and almost no chemicals. This low-output system can manage high- or low-acid products in bottle sizes from 200 ml to 2 litres, and outputs up to 16.000 bottles per hour. The machine meets a growing demand for low-output solutions for juices, teas and liquid dairy products, including UHT milk. The first lowoutput aseptic Combi machine has been running successfully in Laiterie Saint-Denis-Del'Hôtel (LSDH) in France since late 2012.

#### 10. Exceptional training services

Led by instructors who know customers' business, supported by high-quality materials, and employing a mix of methods, Sidel's Training Services offer exceptional value. The offering covers mechanical, electrical and general training, operator and process training, general maintenance training, troubleshooting, and complete line and line efficiency training. With over 40 years of experience, Sidel Training Services help customers minimise downtime, boost their production capacity, ensure greater line durability, and lower production costs, among many other benefits." Over 5,000 people are trained every year with a stunning customer satisfaction level of 96 per cent. The training catalogue is available online in an interactive format, making it userfriendly and easy to navigate: http://technicaltraining.sidel.com/







# On course, despite a challenging year

Sidel faced a challenging year in 2012, with slow growth in overall demand for capital equipment leading to price reductions from already depressed levels. The demand for aftermarket services, however, remained strong and with successful internal efficiency management we reached our profit target despite the difficult market environment.

Our transformation programme comprising the three strategic priorities of Customer Proximity, Technology Leadership and Operational Excellence has continued to pay off in the form of new equipment, better quality, shorter lead times, lower costs, and several important new customer accounts.

#### SIDEL MATRIX™ TO CHANGE THE INDUSTRY

Field-testing of Sidel Matrix™, our new equipment generation based on a modular platform architecture, progressed throughout the year with promising results. The most important launch for Sidel since over a decade, Sidel Matrix<sup>™</sup> will challenge the conventions of beverage packaging with a multitude of new technical solutions













SIDEL COMMENTS BY THE CEO

as well as a ground breaking degree of configurability to meet individual customer requirements.

Introducing modular architecture is the logical way forward for Sidel – providing more customer choice while allowing further rationalisation of our global supply chain. The transition phase will, however, put an extra burden on our organisation as we qualify and ramp up the whole range of new equipment including Blowers, Fillers and Labellers, while maintaining production of the current portfolio.

# STRONG GROWTH IN SOUTH EAST ASIA AND AFRICA

Looking at our geographical markets, the overall growth was below trend line in most regions. For the first time in many years we saw no year-on-year growth in China, as the large Chinese beverage producers held back on investments in new capacity after several years of rapid expansion. However, we see the mid to long-term potential in China as very promising and we are continuing to build

local manufacturing, product care and services capabilities to support the growth we expect in this market.

The strong activity we have seen in Brazil since several years has begun to cool off too, while we see signs of a recovery in Mexico. There was increasingly strong demand in Africa and we are in the process of adapting our market organisation to better serve this continent.

The mature markets in North America and Europe were active, but price pressure is fierce in many places, including Italy, France and Germany. Finally, South East Asia continues to grow at a fast pace and we are continuing to invest in building a strong presence in this region.

# AFTERMARKET PROVIDES NEW OPPORTUNITIES

Although the pace of technology development is quite fast in our industry, the most significant opportunity for differentiation is to further improve the level of service we provide our customers. Sidel is transforming from

Our transformation programme comprising the three strategic priorities of Customer Proximity, Technology Leadership and Operational Excellence has continued to pay off in the form of new equipment, better quality, shorter lead times, lower costs, and several important new customer accounts.



an equipment business to a service centred business. We will continue to develop world leading equipment. However, we must focus even more strongly on how our customers are using this equipment and what we can do to relieve pain points for them and their staff. We expect demand for services to continue growing quite steadily, and as this part of our business gains prominence, our overall year-to-year growth rate should become less volatile.

# SENSITIVE PRODUCTS INCREASINGLY IMPORTANT

The fastest growing beverage segment in the mid-term will be what we call

sensitive products, such as juices, ready-to-drink teas, isotonic beverages and liquid dairy products. We already have a superior equipment portfolio for sensitive products such as our dry preform decontamination solution -Predis™ – however, this segment also requires a different way of thinking than our traditional segments of water and carbonated soft drinks. We will have to learn more about our customers' end product and the interaction between beverage and package, which calls for the approach of a food company rather than that of a highspeed equipment manufacturer.

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SIDEL GROUP MANAGEMENT TEAM

Although, as a capital equipment producer, we will always have some uncertainty about short term demand, we are confident about the long term outlook. While we have to adapt to volume fluctuations like any other business, this confidence in the future allows us to maintain a steady rate of investment regardless of where we are in the business cycle.

# ENHANCING OPERATIONAL PERFORMANCE

Since the launch of our transformation programme five years ago we have been able to maintain an extraordinary pace of operational efficiency improvement. Although this rate of change has stretched the organisation, I do believe that an important motivation for all of us to keep up the pace is the many evident improvements that come as a result of our hard work.

Our basic approach to sustainable cost reduction is to relentlessly drive quality and lead time improvements and to continuously eliminate waste and complexity. We do this through various initiatives such as lean methodology, strategic sourcing and exploiting modularity to reduce supply chain complexity - and we continue to deliver outstanding and visible results.

# MAINTAINING LONG-TERM PERSPECTIVE

In all expanding economies around the world, wealthier and more urbanised populations increasingly create demand for on-the-go packages and premium brands within the water, carbonated soft drinks and sensitive products categories. These trends, along with the inherent advantages of PET packaging, will continue to drive growth for a long time. So although, as a capital equipment producer, we will always have some uncertainty about short term demand, we are confident about the long term outlook. While we have to adapt to volume fluctuations like any other business, this confidence in the future allows us to maintain a steady rate of investment regardless of where we are in the business cycle.

Mart Tiismann











- 01. **Mart Tiismann** President & CEO
- 02. **Marc Aury**Engineering & Material Handling
- 03. Roberto Bettini
  Human Resources
- 04. **Nicholas Bloch**Corporate Communications
- 05. Caroline Fellenius-Omnell Legal
- 06. **Sid Johari** Industrial Operations
- 07. **Peter Logan**Market Operations
- 08. **Michel Picandet**Life Cycle Management
- 09. **Anders Wester** Finance & Strategy





SIDEL STRATEGIC DIRECTIONS

#### VISION

We commit to being the most innovative, responsive and reliable partner, providing sustainable solutions for the beverage industry.

#### **MISSION**

We are the driving force in liquid packaging, providing optimal solutions in PET, can and glass. We constantly challenge the limits of technology and services in order to offer our customers the means to a more sustainable business.

#### **CORE VALUES**

Passion lies at the core of our values and is applied to every aspect of our work – from our desire to create the best products to the respect we have for our colleagues, our workplace and the environment.

#### **LISTEN & UNDERSTAND**

We listen – to our customers, suppliers and colleagues so that we can understand and anticipate their unique needs. We allow for an open, transparent and flexible work environment where we are equally involved and passionate about

our work, continuously developing our skills. We cooperate on all levels to ensure that we provide the quality of work that our customers can rely on and that we are proud of.

#### **CHALLENGE & INNOVATE**

We challenge the limits of technology in order to provide the best possible solutions. Together we have the creative mindset that sets us apart from our competitors – and gives us the flexibility and urgency to design innovative and adaptable solutions. At Sidel, there's room for

everybody's input, but once a decision is made, we unite our efforts and move together in one common direction.

#### **DELIVER & OPTIMISE**

We follow through on our commitments to our customers, to our suppliers and to our colleagues. We are consistent, straightforward and honest, and always act with the highest level of integrity in everything we do. We are passionate about learning at all times in order to optimise our processes and achieve excellence.

#### STRATEGIC PRIORITIES

To always be able to deliver on our promise to be A Better Match, Sidel's strategy is to transform Sidel along the strategic axes of Customer Proximity, Technology Leadership and Operational Excellence. To do this, we must work and live by our values every day as well as understand and execute the strategy.

#### **SIDEL IS A BETTER MATCH**

A Better Match is about delivering on more things than one. More than an equipment supplier, Sidel is and aspires to be a full service provider.

In everything we do at Sidel, we strive to be a Better Match. A Better Match for the products our customers make. A Better Match for the diverse and fast-changing markets. A Better Match for their business as a whole. Our way of being that better match is by providing our customers with value.

When Sidel talks value, we mean value everywhere. From the design of individual moulds, to the equipment customers deploy and maintain, to customers' production lines as a whole, and beyond – to our customers' logistics infrastructure.

To give our customers more value across their business, it takes more than just Sidel

equipment. It also takes customers' expertise and decades of service – which we combine with our equipment into complete solutions that envelop our customers' packaging solutions with value-adding care.

We are Sidel - We are A Better Match.

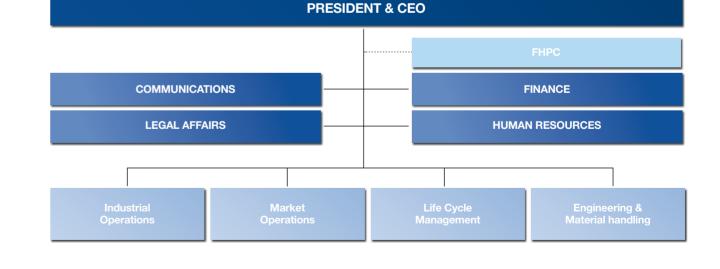
# ORGANISATION

Sidel's organisational structure and geographic presence is designed with its customers in mind. Through this market approach, Sidel combines global competences with local proximity around the world, enabling highly reliable and responsive customer service and support. To meet and even anticipate customers'

needs and demands, Sidel's industrial organisation ensures that they are continually focused on product development and expanding their product portfolio.

Today, there are 8 research centers dedicated to developing new packaging technologies, 26 locations across the globe, production sites in 13 countries and 7 packaging and tooling centres dedicated to designing new bottles or optimising existing designs, across the world.

The Sidel Group has more than 5,500 employees over 5 continents and more than 30,000 machines installed in more 190 countries.





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# Growth on the horizon: beverage market overview

China leads increasing demand for packaged beverages, as Asian markets follow the trend for healthier drinks.

Sidel's core business is to serve the global market for beverage packaging and their equipment solutions exist for three primary material categories: plastics (84 per cent of which is PET), metal can and glass. Main categories for equipment include water, carbonated still drinks (CSD), beer, juices, nectars, soft drinks, isotonics and teas (JNSDIT), and liquid dairy products (LDP).

Sidel's market is over 4 billion Euro of equipment sales. The market has now fully recovered from a major slump in 2009, and long-term growth is expected to be between 4-5 per cent per year, in line with positive macroeconomic trends including population growth, expansion of the middle class in emerging markets, and increasing global prosperity.

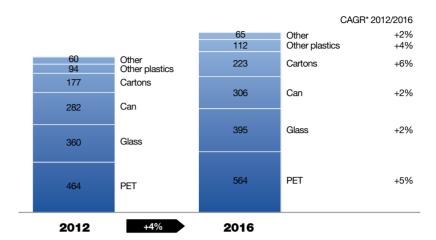
Three main suppliers lead the industry: Sidel, Krones and KHS capture approximately two thirds of the equipment market. Sidel is present in all major geographical markets, main categories and main materials, enjoying a particularly strong position in PET. Global equipment sales are primarily

driven by capacity additions (70 per cent), largely triggered by increases in consumption of packaged beverages, and replacement sales (30 per cent).

Based on positive long-term macroeconomic conditions as mentioned above, the consumption of packaged beverages is expected to continue to grow at a healthy rate. Today, the average growth rate for packaging units is expected to be 4 per cent for PET, metal can and glass combined and 5 per cent for PET alone.



#### WORLDWIDE PACKAGING MATERIALS TRENDS 2012 - 2016



Total in bn units | Source: Euromonitor 2012

\* Compound Annual Growth Rate

Approximately 70 per cent of the increase in consumption of packaged beverages in the next four years is expected to come from Asia, with a projected CAGR 2012-2016 for packaging units of 6.2 per cent. Greater China will drive most of this growth.

The category with the highest increase in sales of packages will be JNSDIT, followed by water and LDP. JNSDIT and milk-based drinks are

becoming increasingly popular, with significant trends towards healthy products, driving demand for high-technology aseptic or hot-fill solutions. Water usually presents different challenges, requiring ever-lighter PET containers and high-speed lines. All those drivers give Sidel the opportunity to differentiate itself by proposing advanced solutions.

#### **WORLDWIDE CATEGORIES TRENDS 2012 - 2016**

	CAGR* 2012/2016			012/2016
		283	Water	+5%
234	Water	281	Liquid Dairy Products	+5%
235	Liquid Dairy Products		Juices, Nectars, Soft	
291	Juices, Nectars, Soft Drinks, Isotonics & Teas	366	Drinks, Isotonics & Teas	+6%
326	Carbonated Soft Drinks	345	Carbonated Soft Drinks	+1%
351	Beer	391	Beer	+3%
2012	+4%	2016		

Total in bn units | Source: Euromonitor 2012

\* Compound Annual Growth Rate

SIDEL CUSTOMERS

#### **SERVICING CUSTOMERS IN MORE THAN 190 COUNTRIES**

Sidel is the leading global provider of PET solutions for liquid packaging. with equipment installed in more than 190 countries. The customers represent a wide array of markets and segments, including water, soft drinks, milk, sensitive products. edible oils and alcoholic beverages such as beer. With Customer Proximity being one of Sidel's strategic axes, more than 5,500 employees serve customers in every corner of the world. Sidel has 26 locations and 13 production plants around the world, offers design and production advice at seven Production & Tooling Centres and research insights at eight Research Centres across the world.

Customers today face a challenging environment where compe-

tition is fierce and the expectations from consumers is ever increasing. In addition, the price pressure from retailers has forced many of Sidel's customers to lower their prices, while maintaining the same product quality. This calls for major needs for efficiency gains and production streamlining. Customers need to pay more attention to cost-related inputs throughout the value chain, such as commodities, raw material like PET and key ingredients like sugar. In addition to increasing efficiencies in their operations, customers also want to be able to extend greater value to retailers as well as their consumers.

Consumption habits are a big challenge as they can change at any moment. What is more, consumer

demand is not entirely driven by the brands. For in-home consumption. consumers expect larger formats and multi-packs. On-the-go, they are looking for products that are easier to consume. Restaurants, bars and cafés often require a totally different design. As for retailers, they are mainly concerned about secondary packaging, storage and shelf appearance. What everyone is looking for - consumers and retailers - is more diversity in the products offered. Producers are responding by introducing new flavours, different ingredients and various sizes, shapes and formats; all of which means new costs.

For Sidel, creating value means making sure the customers are achieving the quality, output and cost-efficiency they need at their plants.

# The China dream

Ting Hsin has built key partnerships over the years to keep up with ever-changing consumer trends, and become a major player in the Chinese beverage market.

China is one of the fastest growing soft drinks markets in the world. The country has seen dramatic growth in the last 10 years. Today, China has overtaken the United States as the world's largest beverage market.

Ting Hsin International Group is a major food and drinks conglomerate in the Chinese market, with business activities including instant noodles, beverages, edible oil, property and logistics. According to market research data, the company market shares for ready-to-drink (RTD) tea and packaged water stand at 50.1 and 19.6 per cent respectively. In November

2011, the company established a strategic alliance with PepsiCo, signalling the expansion into the carbonated soft drinks market segment in China. Here, Wei Ing-Chou, Chairman and CEO of Ting Hsin International Group, shares his views on the company's success and the Chinese beverage industry.

# Q. WHAT DO YOU THINK ARE THE CHALLENGES FACING YOUR BUSINESS TODAY?

A. In my opinion, the key challenges facing us today may be summarised in the following three points.

Firstly, China's commodity prices have increased significantly in the past few years. Rising costs of raw materials, packaging materials, energy consumption, labour and production are driving down profit margins. In the face of such inflationary pressure, we have to continue optimising the business operation system, improve supply chain management, continue to refine production technology, adjust and control unit costs and maintain a stable gross profit margin. Every penny that goes into the production of a PET bottle counts, regardless of raw material costs or bottling line operations. The savings achieved

are massive, especially when the production volume hits more than a million units.

Secondly, the fast growing industry has seen many soft drinks manufacturers launching new product introductions and expanding market segments. The wider demand for variety of end products is enlarging the spectrum of technologies to be provided. We thus have to drive flexibility in our production operations to remain reactive to evolving trends. This could mean adapting existing bottling lines, upgrading to new equipment or making adjustments to improve line efficiencies. All these could help us drive a greater return on our bottling lines.

Thirdly, Chinese consumers' drinking habits are evolving. In the past, people consumed beverages to quench their thirst. Today, soft drinks are responding to the global trend for healthy and natural beverages. Driven by the demand for healthy tea drinks, ready-to-drink (RTD) tea has become the one of the fastest growing categories in recent years. Total volume sales of RTD tea surpassed \$1.23 billion in 2010.

In the next five years, RTD tea consumption is expected to continue growing. The Chinese have a long tradition of drinking tea. Tea not only regulates the body's systems, it also has many health and medicinal properties, and therefore it's extremely popular with the old and young alike.

#### Q. WHAT ARE YOUR EXPECTA-TIONS FROM YOUR SUPPLIERS? HOW HAS SIDEL CREATED VALUE FOR TING HSIN?

A. We have very high requirements on our suppliers, especially in areas of service quality, project management, delivery lead times, line efficiencies, reliability of line performance, etc.

Any production downtime directly affects our bottom line; hence we are careful in selecting who we work with. Sidel, with its vast experience in the liquid food packaging industry, gives

us invaluable support in the technological development of our bottling lines. Sidel not only helps us keep pace with new technologies, but also brings a wealth of experience, knowledge and techniques which make our entire production process run smoothly and efficiently.

To date, Sidel has installed almost 100 Combi water lines and around 30 PET aseptic lines in Ting Hsin's bottling plants all over China. There was thorough follow-up for each of our projects and any issues were dealt with promptly.

Sidel is also able to maintain a high level of flexibility to help us react quickly to changing market conditions and evolving consumer habits. Sidel is the supplier of choice for many of our projects due to its strong project management process and holistic approach in meeting our needs. From assessment of our needs to production of line designs, Sidel helps us make the most out of our investments.

# Q. IN YOUR OPINION, WHAT WOULD BE THE SERVICES OF THE FUTURE?

A. Ting Hsin has aggressively expanded its operations in the last few decades, building new factories in different cities and investing in new opportunities.

However, rising costs are a growing challenge. Driving a strong return on investment is imperative and we are focusing on efforts to ensure that each initiative yields the desired return. For our bottling production lines, we strive for each line or equipment to run optimally at all times and we look forward to incorporating improvement assessment tools to help us better the utilisation rate of each product line.

We see Sidel further developing itself as a fully integrated supplier providing holistic solutions to customers throughout the entire product life cycle. Developing closer cooperation is important.

Exploring innovative ways of working together will collectively move us towards a future where we can grow our businesses, exploit market opportunities and jointly tackle the challenges of the market.



SIDEL CUSTOMERS



# Premium shape for premium customers

Working with the Société des Eaux d'Aix-les-Bains (SEAB) in France, Sidel has designed and produced a stylish new bottle in PET for the organisation's still water product. Targeted at the French hospitality sector, it challenges the traditional way of serving of mineral water from glass bottles or carafes.

It is the only PET triangular bottle in this market, and has an appealing design that meets the requirements of hotels and restaurants in the premium segment. In addition, it is the only PET bottle for mineral water without a label, since the statutory product information and logo has been engraved on to the mould by laser.

The design process was challenging, but culminated in Sidel delivering a bottle with minimalist aesthetics, appealing and very easy to handle. A further advantage is that it is produced in currently installed equipment that has been modified to handle both the traditional commercial production bottles and the new format for the premium catering sector.

# First aseptic PET line in Africa

To strengthen its presence on the juices market, IFRI is investing in an aseptic line equipped with the Combi Predis™ FMa, making it the first aseptic PET line in Africa.

The first private producer of mineral water in Algeria, IFRI is in a leadership position with more than 20 per cent of the Algerian soft drinks market and an average annual growth of more than 10 per cent over the past decade. IFRI Group produces its own preforms and caps from raw materials of Algerian origin and distributes its own products.

#### 100 PER CENT NATURAL

Listening to consumer expectations, IFRI introduced Ifruit, a line of 100 per cent natural fruit juices. Unsurprisingly, it opted for aseptic bottling, which gives the consumer all the best that fruit has to offer. In addition, distribution at ambient temperature eliminates any risk of breaking the cold chain and lowers distribution costs, both for the local market and for export. It does all of this without negatively affecting the intrinsic qualities of the natural extracts (vitamins, aromas, proteins, etc.) or the sensory qualities of the juices. In early 2012, IFRI installed Africa's first aseptic PET line – a Sidel line equipped with a Combi Predis™ FMa.

#### **CLOSE RELATIONS**

Aziz Ibrahim, one of the sons of the company's founder Laïd Ibrahim, says: "Our partnership with Sidel goes back to the early days of IFRI when we introduced PET to the mineral water market in 1996. Subsequently, the various extensions and diversifications of the product range done with Sidel increased our confidence. The experience that Sidel has accumulated in aseptic PET bottling is the greatest assurance of process safety."

The completion of the Ifruit aseptic line was accompanied by packaging



innovations, including bottles with modern designs, 38-mm necks and wraparound oriented polypropylene labels, total sleeve and partial sleeve.

Says Aziz Ibrahim: "The rigorous approach demonstrated by Sidel in technology transfer, particularly knowledge transfer via the on-site training of our staff, is the greatest added value, because it assures us of the mastery throughout the production cycle."

In addition, Sidel's Predis™ technology – the dry decontamination solution for preforms – has the benefit of optimising the sterilisation process. "Predis™ helps us to protect the environment. We produce no chemical waste products from decontamination, and we use less water, which is becoming an increasingly rare resource," says Ibrahim.

#### **BUILT-IN VERSATILITY**

After successive aseptic validations for high- and low-acid products as well as additional stability tests to comply with Algerian legislation, the line now offers great versatility. It is intended for the production of the full range of IFRI aseptic products under the Ifruit brand as well as Azro brand isotonic drinks. The entire product preparation process was developed by Tetra Pak Processing Systems, in close cooperation with Sidel.

# Sidel Matrix<sup>™</sup> platform: it is all about proven possibilities

Sidel has launched its latest generation of liquid packaging solutions through its new Sidel Matrix<sup>™</sup> system. These solutions challenge the conventions of PET production in order to meet the needs of beverage producers in constantly changing markets.

Sidel Matrix™ not only revolutionises the way Sidel's complete solutions work, it is also future-proof, in that it allows the beverage industry to customise packages to fit with constantly changing consumer demands. With an unprecedented level of process flexibility, supported by reliability, Sidel Matrix™ also offers the lowest cost of operations and smallest footprint in the marketplace. The range includes blowers, fillers, Combi, and labellers.

#### THE SIDEL MATRIX™ BLOWER

In a world of constantly changing needs, today's bottle is tomorrow's old news. What is important is the flexibility to pick and choose a size and shape that fits specific needs and industrial requirements.

That is why Sidel has dedicated the last three years to developing a solution that goes beyond the rest. Surpassing all current industry standards, Sidel's new blower range can easily be adapted to customers' individual requirements and expectations.

The fastest changeover time, lowest environmental footprint, highest oven efficiency, and greatest productive uptime in the industry combine to give customers the best total cost of ownership on the market. With one single platform, which can be configured in many different ways, Sidel Matrix™ offers the flexibility to pick and choose a size and shape that provides truly tailor-made solutions.

# THE SIDEL MATRIX™ FILLERS AND COMBI FOR WATER AND CSD

The new Sidel Matrix™ fillers for still water and CSD provide customers with more adaptable and responsive production solutions. They offer greater flexibility and uptime, substantially reducing operational costs. Hygienic design means the Sidel Matrix™ filler more than matches the needs of the global liquid packaging industry in terms of food safety.

The new Sidel Matrix™ Combi integrated blow-fill-cap solution encompasses all the benefits of the latest generation technologies in a unique platform. While raising the bar on hygiene, the Combi cuts the cost of packaging still water and carbonated beverages.

#### THE SIDEL MATRIX™ LABELLERS

The Sidel Matrix™ Rollfed is the first labeller solution running on the Sidel Matrix™ platform. Rollfed the most-used labelling technology on the market, and

allows the label to be cut from a roll according to the size of the bottle and applied with hot melted glue.

A new modular design boosts productivity: labelling is speeded up, which helps cut costs on everything from materials to maintenance. It even improves environmental performance by enabling the use of lighter, more ecofriendly packaging and reducing energy consumption and quantity of materials.

This development gives Sidel a real competitive advantage, providing added value to customers as it empowers them to further optimise industrial performance.

Such new concept will be extended to innovative equipment such as Sidel Matrix™ hot-fillers with or without particulates products.



Surpassing all current industry standards, Sidel's new Matrix™ platform can easily be adapted to customers' individual requirements and expectations.

SIDEL SOLUTIONS

# **Customised maintenance** to boost performance

Sidel strengthens maintenance service by offering customers several levels to choose from.

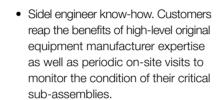
Maintenance support is particularly important for three types of bottlers: those looking for a major boost in production capacity; those working with sensitive materials and who need to be sure their machines can ensure final product quality; and the ones encountering new technologies who want to implement an effective preventative maintenance programme and build on technical knowledge. But, regardless of the type of operation or specific objective, the ultimate goal of any maintenance agreement is the same: to achieve total reliability and greater peace of mind.

In 2012, Sidel enhanced the structure of its maintenance offering, focusing on even greater customisation.

Depending on their specific requirements, customers can now choose

from three levels of agreement: Silver, Gold or Gold Optimum. Each level offers a different range of options and services. Through these maintenance packages, customers benefit from Sidel's strong industry expertise in three main areas:

Optimized maintenance plans. Through extensive analysis of the installed base of more than 30,000 machines, Sidel has quantified the lifespan of various components through stress tests and applied an effective maintenance policy using a standard methodology known as 'Failure Modes, Effects and Criticality Analysis' (FMECA). Knowing the projected life of a component improves the ability to foresee a production failure.



Highly efficient logistics. To maximize uptime and simplify the over-haul process, all necessary spare parts are prepared and delivered beforehand.

#### A TEAM OF TRUE EXPERTS

Having the right people in place is just as important as having the right solutions. That is why Sidel provides a complete maintenance solution team fully dedicated to execution and follow-up. Together, these experts ensure optimal production capacity with no compromise on product quality. They focus on streamlining the logistics of finished goods, reducing spare-parts inventory costs, and optimising cash flow through fixed monthly invoices and lower operating expenses.



# **Leading-edge training**

Well-trained employees are the key to success for every business, say Luigi Armani and Matteo Peveri from Sidel. They explain how the company's service and training expertise contributes to better results on the production line.

"Skill comes with practice – and with training," says Luigi Armani, Central Training and Technical Competence Development Director. Technical training and competence audits improve the motivation and performance of customers' employees. Consequently, worldwide training opportunities are an integral part of Sidel's service offer.

The company has invested significantly in its training programmes and in research into new methods. More than 5,000 people participated in training sessions and seminars at Sidel's facilities in France, Italy, Mexico, Brazil, USA, Malaysia and China last year. Strategically located, the training facilities cover many of Sidel's key markets

"The training centres position us closer to our customers. We can focus more strongly on the individual training needs of both our customers and our own technicians." Armani adds.

# THE BEST MATCH IS TAILOR-MADE

The offer ranges from classroom sessions to on-the-job training in different sectors such as filling technologies, maintenance and product applications. "Our participants benefit from Sidel's long-term expertise and we offer our customers flexibility in timing and numbers to be trained," Armani continues.

An example of Sidel's adaptability is the development of a new competence audit programme in response to increasing demand for targeted training on bottling lines. A customer provides a job profile for each employee, and Sidel experts monitor performance and support them. After the audit, individual recommendations are made for customised training sessions to be held on site or in one of Sidel's centres. A follow-up assessment completes the technical audit and evaluates its success.

#### **FUTURE TRAINING REALITIES**

"As a full-service packaging supplier, it is very important to be up to date with new developments. We not only keep ourselves informed, we also actively participate in research activities," says Armani. Only recently, a European project, 'SKILLS – Multimodal Interfaces for Capturing and Transfer of Skills', ended after five years.

Sidel's contribution was to test and develop virtual and augmented reality platforms for industrial training.

Virtual reality-based systems encourage learning by doing as the trainees interact with a virtual machine and tools. Augmented reality-based systems, on the other hand, improve cognitive skills. "Virtual instructions are directly linked to the real machine via mobile computing technologies such as iPads or smartphones. Thus, the trainees can solve complex tasks without a supervisor," explains Matteo Peveri, from the technical training centre team in Parma, Italy.

Sidel's engineering and training expertise helped show the enormous potential of computer-based technologies for maintenance and assembly operations. "SKILLS was a great opportunity for us to co-operate closely with international researchers, universities and other industry players," says Peveri.

Armani concludes: "Our training investment makes us a better match for our customers. Above all, training is an investment in employees, in their expertise, confidence and motivation – ultimately resulting in better product quality."



SIDEL SUSTAINABILITY

# Plastic bottles build new futures

Asia and Central America have long suffered from a lack of educational infrastructure. But now old PET bottles are coming to the rescue. They are being used as building blocks to erect new buildings – and even to help light them.

On the edge of the Philippine capital, Manila, sits the huge Payatas landfill site where thousands of plastic bottles are dumped every day. But now local people are putting them to use by building much-needed schools for children in the area.

With the number of school-age children growing, the Philippine Department of Education estimates around 66,000 new classrooms are needed across the country. In many existing schools, up to 70 students share each classroom in cramped, noisy conditions where learning is difficult.

According to the My Shelter Foundation, every town in the Philippines produces enough plastic bottle waste to construct a classroom every two weeks.

"It is very empowering because what used to be a problem is now a solution," says Illac Diaz, the Foundation's Executive Director.

#### **CREATING A SOLID FOUNDATION**

In addition to being a more sustainable alternative to traditional buildings, these new schools cost a third of the price of classrooms that use steel, cement and glass. However, because of the cheaper materials, they are often twice the size. "That is why this plastic bottle is a good start. It is a pioneering way to look at how a simple plastic bottle can be used as a brick," explains Diaz.

The first school, Payatas Elementary School, was built by the foundation in partnership with Pepsi, which

organized a bottle collection to construct the classroom on a site donated by the local government of San Pablo. Illac Diaz developed the idea of using bottles when he saw ancient buildings made from adobe, a mix of mud, sand, clay and water, along with straw and twigs, still standing after centuries.

At Payatas, the building process began with volunteers filling 9,000 plastic bottles with liquefied adobe. Once dried, they were stacked to make the walls, then reinforced with cement and steel bars, with holes left for ventilation. Compressed Tetra Pak packages were used to make the roof, while the interior walls were simply whitewashed.

These eco-bricks are much lighter and less rigid than traditional hollow concrete blocks, yet they are three times stronger, which is ideal for countries like the Philippines that are regularly battered by strong tropical storms.

#### **HUG IT FORWARD**

Meanwhile in Guatemala, the Hug It Forward group is also embracing the versatile plastic bottle. In this case, volunteers fill them with clean, non-biodegradable waste before building them up inside layers of chicken wire and covering them in cement. However, these eco-bricks are mainly used as insulation with the actual classroom supported by a structural frame installed by professional builders.

Sixteen bottle-based schools have



now been built costing around \$5,000 each, about half the price of traditional classrooms.

#### **LIGHT UP**

But the story of recycled PET bottles does not end there. Back in the Philippines, Isang Litrong Liwanag (meaning literally 'A Litre of Light') is a sustainable lighting project developed by My Shelter Foundation to help the 40 per cent of people living in homes with no electricity and, often, no windows.

Again, the technology is simple but effective. A plastic bottle is filled with water, some salt and a few drops of bleach to prevent algae. It is then placed in a hole in the ceiling. The light refracted through the bottle produces as much illumination as a 50-watt bulb. The foundation aims to light up over one million homes, and this affordable technology is catching on in other poor areas of the world.

As Diaz explains: "Basic lighting would seem to be a fundamental right for any community, yet too often in our crowded urban areas it simply does not exist. By the easy application of previously used plastic bottles, we can create a cost-efficient and environmentally friendly solution for basic lighting needs."

# Holistic approach reduces environmental impact

Sidel's three-part ECO Service makes it easy for companies to reduce energy consumption – saving time, money and the environment.

It is no secret that companies are constantly looking to save money and increase efficiency. And, thankfully, most organisations also now recognise the importance of environmental responsibility. What may come as a surprise to many is how simple it can be to achieve these goals simultaneously.

Sidel has developed a complete range of ECO Services to accomplish exactly this. Three distinct modules focus on quantifiable savings and rapid return on investment.

# ECO BOOSTER": IMPROVING BLOW MOULDER PERFORMANCE TO SIGNIFICANTLY REDUCE ENERGY CONSUMPTION

When it comes to energy inefficiency, the blow-moulder is often the biggest culprit. In a production line, this machine can consume up to 70 per cent of energy used, much of it expended on compressed air. To help companies tap into the huge potential for

energy savings in this area, Sidel leveraged its unmatched experience in blow-moulding technology to develop ECO Booster™, a comprehensive service based on measurement, advice and continuous improvement.

Measuring is the essential first step. An ECO Booster™ expert carefully analyses production conditions by measuring electricity consumption, air pressure and leaks, and then performs mechanical testing on all the blowmoulder's sub-assemblies. The next vital step is to check the production process and the technical qualities of the package, the quality of the air and cooling water, and the production environment. From this, a personalised action plan and servicing schedule are proposed along with a return on investment forecast and energy and cost-saving targets.

Once the proposals are agreed to, a plan of action is diligently implemented. In addition to the servicing, con-







sumption monitoring and process control tools can be put in place, as well as additional laboratory or production control equipment.

Finally, when servicing is completed and accepted by the customer, an ecosticker is placed on the blow-moulder showing it has passed the eco-efficiency test. This promotes eco-awareness among production staff.

#### ECO EIT\*™: MEASURING ENERGY **CONSUMPTION AROUND THE CLOCK WITH REPORTING**

This module automatically records energy and utility consumption, such as air, water, electricity, CO2 and gas, at any level, whether a machine, a line, a production zone or an entire plant. In addition to allowing calculation of consumption or energy costs per product unit, the power of ECO  $\mathsf{EIT}^{\scriptscriptstyle\mathsf{TM}}$ lies in its ability to facilitate correlation between consumption levels and different production steps, such as start-up, shutdown, changeover and cleaning. Such strategic information effectively supports continuous improvement initiatives for reducing waste.

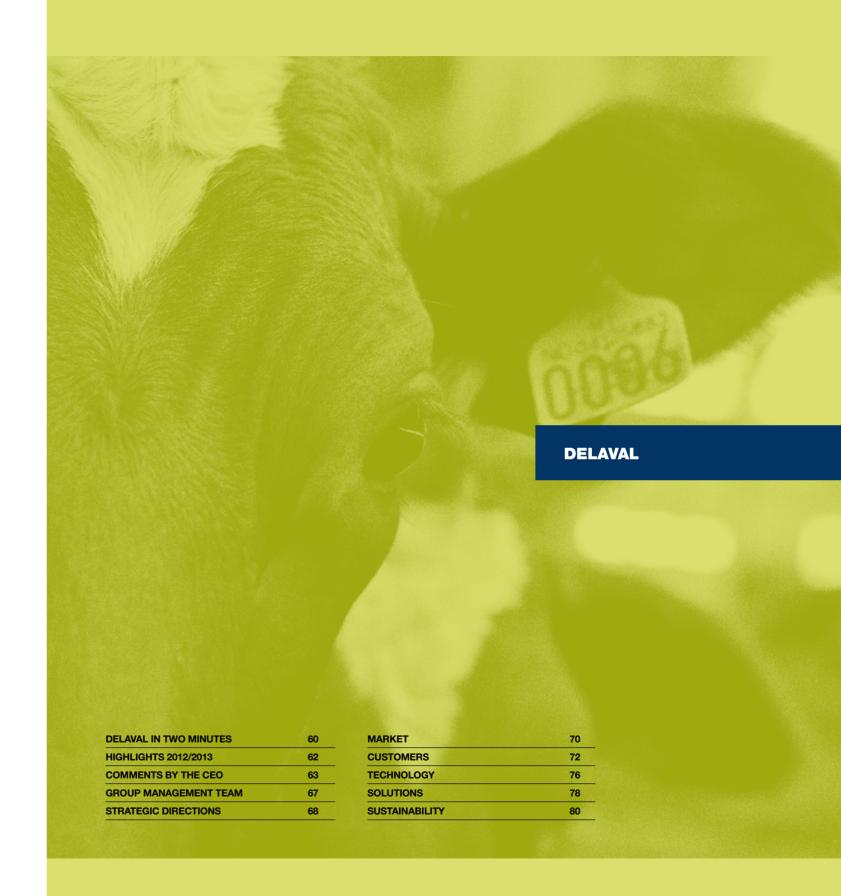
ECO EIT™ offers an extensive set of reports detailing costs and utilisation which can be exported to other systems - such as ERP solutions allowing companies to compare consumption between various components, lines or sites.

The ECO EIT™ module is available as an add-on to the Sidel EIT™ data acquisition system. It is a valuable asset for identifying energy-saving opportunities, justifying greener technologies and implementing sustainability measures.

#### ECO AUDIT™: ACHIEVING **TANGIBLE COST AND ENERGY SAVINGS THROUGH A DETAILED LINE OVERVIEW**

Sidel's ECO Audit™ provides a snapshot of existing line conditions during full production. It has two objectives: the first is to evaluate gaps in production performance and energy consumption between actual execution and the original specifications; the second is to establish a clear benchmark and administer an improvement plan based on recommendations. During an ECO Audit™, two Sidel engineers spend a week onsite to gather necessary data. Once it has been evaluated - and within three weeks - a detailed report is sent to the customer with precise recommendations based on specific needs and schedule. The ECO Audit™, as with all of Sidel's ECO Services, puts users on a firm path to achieving measurable economic and environmental benefits with a rapid return on investment.

\* Efficiency Improvement Tool



#### **SOLUTIONS**

DeLaval offers six Capital Goods systems: Automatic Milking Systems, Conventional Milking Systems, Cooling Systems, Feeding Systems, Effluent & Housing Systems and Farm Management Support Systems

DeLaval customers can also choose from a wide range of services and consumables which are grouped in four portfolios: Liners & Tubes, Farm Supplies, Services & Original Parts, and Milk Quality & Animal Health.

#### R&I

Research and innovation has been essential to DeLaval's steady progress. This is especially emphasised in product development, where the team works in close contact with a worldwide network of farmers, academics, dedicated research facilities, scientists, sales teams, authorised dealers and other agricultural experts.

#### MARKETS AND CUSTOMERS

DeLaval operates with about 4,500 employees in more than 100 markets. DeLaval provides integrated solutions that cover not only cow but also sheep, goat and buffalo dairy farms to over 1,000,000 customers around the globe.









COUNTRIES COVERED

>100

NET SALES 2012

1,005

NUMBER OF PLANTS

**20** 

R&D UNITS

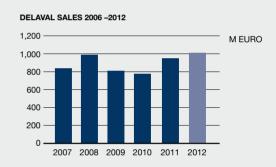
7

SALES OFFICES

35

NUMBER OF EMPLOYEES DECEMBER 2012

4,545



#### **OUR BRAND**

DeLaval is a very well-known brand within the dairy farming industry and a leading supplier of solutions that improve the performance of farms for professional food producers. As dairy farmers, our customers have one of the toughest and most interesting jobs in the food sector. They manage their farms using increasingly advanced technology, and have larger staff than in the past as a

result of industry consolidation, as well as larger herds. They juggle these complex elements to produce one of the world's most nutritious foods.

DeLaval supports customers in managing their farms and offers complete, reliable and profitable solutions, including service and advice.

#### FOOD FOR DEVELOPMENT

Food for Development is an important part of DeLaval's corporate social responsibility.

The target is to achieve sustainable social and economic dairy development by promoting public-private partnership in developing countries.

We are committed to helping customers, governments and community based organisations to provide milk to

children around the world. A public-private partnership is the best way to fight rural poverty and malnutrition through dairy development. All DeLaval activities are long-term business development projects aimed at encouraging demand for locally produced dairy products and pushing for transformation of subsistence smallholders into commercially viable farmers.

#### **SMART FARMING**

Smart Farming is a DeLaval initiative aimed at influencing and shaping the future of dairy farming today. The goal is to accelerate the transition from milking management to global farm profitability management by harnessing emerging decision tools and automation technologies for better quality milk and profits.

#### SUSTAINABLE DAIRY FARMING

Sustainable Dairy Farming is a DeLaval initiative to support farmers to do more with less. The goal is to reduce the environmental footprint of farms, while improving milk production, farm profitability and the well-being of the people and animals involved. DeLaval believes this goal can be achieved by providing smart technology and services to increase resource efficiency.



# 2012/2013

#### **01. First commercial installation of** farm efficiency and sustainability, and DeLaval AMR™ automatic milking rotary in Europe

Laproma Farm, Germany, is the second commercial AMR<sup>™</sup> operation and the fifth farm worldwide to install the solution. At start-up, the dairy farm will milk 360 cows in a batch system and plans to gradually expand its herd size in the coming years. The system came into use in 2013.

AMR is the world's first automatic milking rotary system and was featured as a Top100 New Products at the World Ag Expo 2012 in California. The solution for high-capacity automatic milking was chosen by a jury of farmers, ranchers and industry professionals. Since its introduction in 2010, DeLaval AMR has won multiple industry awards.

#### 02. DeLaval took the stage at EuroTier 2012

Several new solutions, such as DelPro™ Farm Manager and DeLaval teat spray robot TSR, were unveiled by DeLaval at EuroTier 2012, the world's largest agricultural fair held in Hanover, Germany,

DeLaval also demonstrated the advantages of DeLaval consumables, liners, teat dips and more, showing how the products are rigorously developed and tested for optimal results.

EuroTier provided not only a stage for introducing new products; visitors were also invited to experience new viewpoints. The demand for food is expected to double as the world population rises to nearly 9 billion by 2050, while a changing environment is imposing new limits on supply and resources, and affecting biodiversity.

Meeting these challenges requires looking at food production in a completely new way, innovating with solutions to improve

demanding individuals and companies make their own efforts.

#### **03. Chinese Minister of Agriculture** visited Hamra Farm

Chinese Minister of Agriculture, Mr Han Changfu, visited Hamra Farm and DeLaval headquarters in Tumba, Sweden, in August 2012. The minister and his accompanying delegation were given a demonstration of state-of-the-art technology for sustainable dairy farming. DeLaval, in cooperation with Tetra Pak, has been involved in dairy production in China since the 1990s.

#### **04. Livestock Research Centre had** a roval opening

In 2011, DeLaval won a bid to supply equipment - including the DeLaval AMR™ automatic milking rotary to the Swedish University of Agricultural Sciences' Livestock Research Centre at Lövsta, near Uppsala. In 2012, King Carl XVI Gustaf of Sweden inaugurated the Centre at a gala opening. Fitted with DeLaval equipment, Lövsta is one of Europe's most modern facilities for education and research on cows, pigs and poultry farming.

#### **05. Closer to expansive markets**

With the aim of building capacity for future growth and increasing competitiveness DeLaval started adjusting its global industrial footprint in 2012.

The company began the construction of a global manufacturing unit in Tianjin, China, and will gradually start production of selected conventional milking equipment from the second half of 2013.

A factory to supply the Chinese market with products promoting milk quality and animal health is also being built in Tianiin, and a similar factory established in São Paulo, Brazil.

The new site in Tianjin will function as a global hub for manufacturing, sourcing, logistics, design, engineering and sales. The aim is to meet demand from the fast-growing Chinese market and also supply other markets with conventional milking equipment.

#### 06. Smart farming showcased at journalist congress

The congress 'Solutions for a Green Future' gathered together 170 agricultural journalists in the Stockholm area of Sweden in August 2012. DeLaval was the main sponsor, targeting members of the International Federation of Agricultural Journalists, an important group of stakeholders.

DeLaval gave the journalists a tour of its own farm, Hamra, to showcase Smart Farming and its range of solutions.

#### 07. More than five thousand swinging cow brushes in North **America**

DeLaval swinging cow brush, SCB, has been shown to boost cow comfort and milk production. The brush's unique design lets it swing freely onto the cow's head, shoulders, back, and along her sides delivering smooth, cow-friendly grooming angles.

Since its introduction to North America in 2004, the company has sold more than 5,000 brushes to customers throughout Canada. Mexico and the USA.

# Increased sales in a competitive market

In 2012, we increased sales by approximately five per cent at prevailing rates in a very competitive market that underwent significant changes during the year. For the first six months our sales enjoyed a high growth rate, while the second six months were more restrained. Weather and climate factors had a significant impact on the market. There was a substantial increase in milk production and exports from Australia and New Zealand during the

latter half of the year, which exerted downward pressure on milk prices. At the same time, feed prices rose as a result of drought in the US and flooding in Asia, which led to lower grain production. The lower milk price and higher cost of feed meant that our customers became more modest with their investments.

DeLaval's operating income was on a par with the previous year, which I find particularly pleasing bearing in mind

















DELAVAL COMMENTS BY THE CEO

our extraordinary drive for expansion in countries such as China, Russia and Brazil, as well as the continued investments within Research and Development.

#### GOOD SALES IN PRODUCTIVITY-ENHANCING PRODUCTS

In a challenging market, we have strived to accommodate to our customers' needs for better solutions and services. Investments by our customers in optimising productivity were less affected by the disruption in the market. Within Capital Goods we had relatively good sales of our systems for automatic milking, management and feeding. DeLaval VMS™ voluntary milking system took a greater market share and is gaining ground in new markets. Sales of DeLaval aftermarket products and services showed a positive trend for the year.

# POSITIVE DEVELOPMENT IN GROWTH MARKETS

There was very satisfactory growth in Latin America, China and New Zealand. There were also changes in the US market – demand on the West Coast was not as strong as in the previous year, while farmers from the

'milk states' in the Midwest made increased investments in milking equipment. DeLaval developed well in European markets such as Germany, France, Switzerland and Norway, while the countries in Southern Europe fell back due to the financial turbulence and the debt crisis.

# LEADING THE TECHNOLOGICAL DEVELOPMENT

To help our customers reduce their environmental footprint, while improving food production, farm profitability and the well-being of the people and animals involved, we continuously strive to enhance our solutions to make it possible for farmers "to do more with less".

DeLaval launched several new products during the year, primarily driven by customer needs for investment in order to improve productivity in their milk production. A good example was the launch of the DelPro™ Farm Manager system that gives our customers an excellent overview of their operations. DelPro integrates DeLaval milking, feeding and automation systems in one centralised offering. The new system has strong analytics and an easy-to-use interface, and includes new modules for managing health, reproduction, feeding, veterinary

Global milk production increased by 2.4 per cent during 2012, while we were able to grow our business faster than that. The underlying trend for the sector is positive, with milk consumption rising in emerging economies. The increasing middle class, in markets such as China, India and Latin America is contributing to increased growth.



care, labour and parlour performance. This type of management system provides the dairy farmer with effective ways of monitoring operations, as well as proposals for measures to increase farm productivity.

Another example was the launch of DeLaval teat spray robot, TSR, a new product and a natural spin-off from our AMR™ automatic milking rotary. The robot is used to optimise the dairy after milking, providing more even spraying and reducing the workload for the farmer.

In order to serve our customers even better, we also focused on increasing our aftermarket range and services during 2012. We gained very positive feedback about the increased range of hygiene products for improved animal health as well as our new service concept. With this focus on the market we

also targeted non-traditional DeLaval customers.

# POSITIVE TREND FOR MILK CONSUMPTION

The global market continued to grow during 2012, although not as strongly as during the previous year. Global milk production increased by 2.4 per cent during 2012, while we were able to grow our business faster than that. The underlying trend for the sector is positive, with milk consumption rising in emerging economies. The increasing middle class, in markets such as China, India and Latin America is contributing to increased growth. DeLaval has taken advantage of the momentum in these markets through attractive offerings to fulfil the needs of our customers - in particular within Automatic Milking Systems.

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DELAVAL COMMENTS BY THE CEO

Future growth for DeLaval the next coming years will come from a number of specific areas. One area is continued geographic expansion, in particular in China, Russia, India and Latin America.



Future growth for DeLaval the next coming years will come from a number of specific areas. One area is continued geographic expansion, in particular in China, Russia, India and Latin America. In these countries there is great potential for investment in milking systems, particularly conventional milking systems, automated milking and aftermarket products.

Another key issue is our ambition to develop our offering within the farm management sector. We will continue to develop new products and integrated systems, and extend our offering in order to give our customers improved management and follow-up for their operations. A third focus is to even better serve our customers with aftermarket products and service.

# ATTRACTIVE PARTNER TO OUR CUSTOMERS

The market for 2013 is difficult to assess. This is due, among other things, to the discussions being conducted within the EU on aid for agriculture. Forthcoming decisions on the CAP - the EU's common agricultural policy - as well as the development in the price of milk and feed, will have significant influence on how the market will develop. Despite the uncertainty, our ambition is to grow organically at the 2012 level. Continued focus on service and support are also high up on the agenda. We have explicit objectives to be an even more attractive partner to our customers within capital goods investments and the aftermarket. With our history of technical innovations, strong competence and committed employees, all the conditions exist for 2013 to be a successful year as well.

Joakim Rosengren











- 02. **Magnus Berg** Supply Chain
- 03. **Lars Johansson**Corporate Communications
- 04. **Mikael Landberg** Human Resources
- 05. **Stefan Lidström** Group Finance & IS
- 06. **Paul Löfgren**Marketing and Sales
- 07. **Tim Nicolaï**BA Aftermarket & Services
- 08. **Jan Ove Nilsson** BA Capital Goods
- 09. **Henrik Sundell** Legal Affairs





DELAVAL STRATEGIC DIRECTIONS

#### VISION

# We make sustainable food production possible.

#### MISSION

We team up with customers for results that last. From our leading position in dairy farming, we innovate and expand in new segments and new geographies. We provide integrated solutions and ensure that everywhere we do business, we lead. We exist for the customer, around the clock.

#### **CORE VALUES**

#### **PASSION**

- We share a passion for delivering customer value.
- We are proud of our heritage and our success.
- From our leading position in dairy farming, we expand our business with passion.
- This passion distinguishes us from other companies.

#### **PEOPLE**

- We have the ability and are trusted to make decisions within our area of responsibility.
- We build our success on competence and constantly invest in personal development.

- We share our knowledge, support each other and enjoy being part of a team
- We encourage diversity and appreciate the creativity that comes from a mix of cultures, gender, sexual orientation, religions, experiences and personalities.
- We are part of a global network.

#### **PROFESSIONALS**

- We deliver quality in everything we do.
- We have clear responsibilities and fulfil our commitments.
- We listen, learn, innovate and constantly improve.

- We are proud of who we are and humbly reflect this through our attitude and behaviour.
- We stay true to our values.

#### **PARTNERSHIPS**

- Our customers, their needs and expectations, are the starting point for everything we do.
- Our dealers are business partners with whom we jointly deliver customer values.
- DeLaval employees, our dealers and customers partner for longterm business results.

#### **STRATEGY**

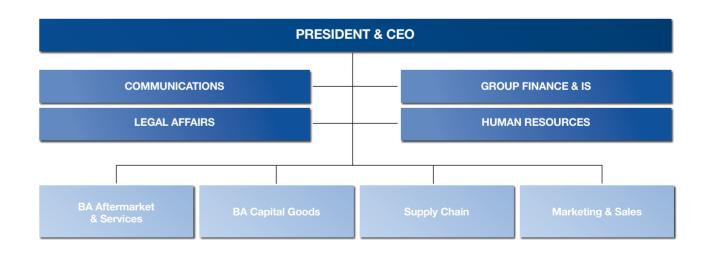
DeLaval continues expanding the offer towards a totally integrated system to manage farm functionality. This will include herd health, breeding and nutrition, through productivity, labour management, waste utilization, and reporting for management purposes, as well as many other related aspects of running a sustainable food production business.

Aggressively growing consumables and services businesses is core to our future growth. Tapping into this opportunity will be managed through four main growth avenues: geographical expansion, organic growth, range extension and innovation.

Within the context of our strategy, DeLaval can expect a more challenging and demanding business environment. Our customers are becoming larger and more sophisticated, and as a consequence, more demanding. Truly competitive product cost levels and 'best-in-class' quality performance are two basic key success factors to meet our customers' needs.

Many activities linked to our strategy have already been launched. We will invest in new business opportunities, ensure the supply chain is working efficiently and that the manufacturing footprint is competitive. Activities within R&D will continue to be of high priority.

#### **ORGANISATION**



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# **Market**

### **MARKET GROWTH**

2012 delivered a strong growth in milk production, 2.4 per cent compared to the previous year. Stimulated by steady demand in Africa and Asia, world milk production is expected to increase about 2.4 per cent per year during the next decade.

### **KEY MARKET DRIVERS**

Favourable growth is expected in global demand in the long term, driven by economic growth, urbanization, the rising purchasing power of the developing world's middle class and a continued shift in dietary patterns in developing countries. With very few exceptions, per capita GDP and dairy consumption are highly correlated in emerging countries where demand for all dairy products is expected to grow in the next decade.

## **MARKET DEVELOPMENT 2012**

2012 saw one of the most severe droughts in US history, with a dramatic knock-on effect on feed prices and availability. Feed costs reached record highs, negatively impacting dairy producer profitability.

Price variability creates uncertainty and increases risk at various points along the milk and dairy product supply chain. For producers, the challenge presented by less regular price cycles is compounded by feed price volatility. Finding a way to survive this volatility is a precondition for long-term survival in the dairy industry.

Further consolidation among dairy processors continued in 2012 with a number of mergers and acquisitions in Europe, Asia and Latin America. The main benefits of this consolida-

tion are that it creates larger and leaner businesses with greater economies of scale, increasing raw milk collection and secure supply.

### **MARKET TRENDS**

The business of DeLaval customers is changing rapidly, not least as farms and food companies consolidate to leverage economies of scale, and as regulatory demands increase (for example in terms of bio-security, animal welfare and environmental compliance). We have better potential to work closer with both our current customers and new professional food producers to increase their capacity to ensure food safety and security.

The food industry is now moving towards measuring the sustainability of farms. In order to both stay informed and to influence this development DeLaval is engaging in major industry co-operations on sustainability and dairy production.

### COMPETITION

Stronger competition continued to put pressure on our prices and margins in 2012, most notably in the automatic milking system, AMS, and conventional milking system, CMS, business with increasing average installation size, and in the aftermarket business where competition from cheaper brands increased. In a very competitive environment, we managed to increase our market share in the AMS business, especially in countries in which we launched sales of Herd Navigator™ solution. Further consolidation of the market continued with more mergers and acquisitions.

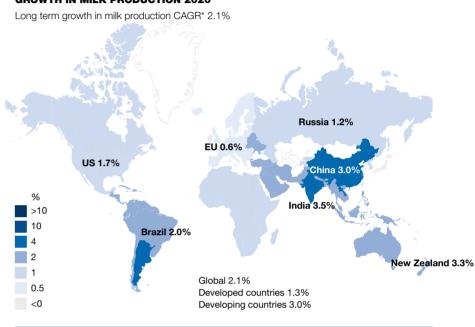
#### **OUTLOOK**

The high and volatile prices of the recent years have drawn attention to the contribution of the EU to food security, productivity improvement and the sustainable use of environmental resources. These aspects form part of the background for the current CAP reform process. Climate change also calls for policy adjustments in terms of adaptation and mitigation. The answer to these challenges will be addressed through research and technology developments, as well as instruments to cope with volatility.

With increased demand for safe and nutritious food, there is no other option for leading actors in the food value chain than to continuously improve their solutions, the way they are made available to the market, and the way customers are supported. These improvements will combine gradual with more radical innovations that improve existing technology and provide new resource-saving solutions.

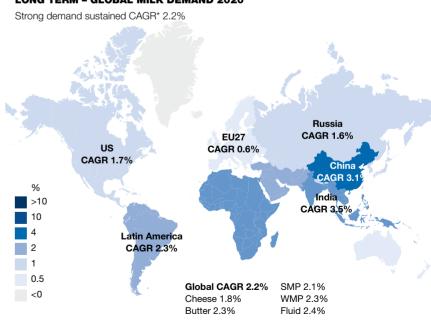
DeLaval is already well placed to support food producers with solutions to improve on-farm productivity and thereby create business value. As part of the Sustainable Dairy Farming initiative, we have identified a number of key solutions based on the key focus area they impact: feed, animal health, water and energy.

### **GROWTH IN MILK PRODUCTION 2020**



\*CAGR = Compound Annual Growth Rate

## LONG TERM - GLOBAL MILK DEMAND 2020



\*CAGR = Compound Annual Growth Rate

# \* Based on daily consumption per capita ranging from \$10 to \$100 (in purchasing power parity terms). Source: OECD / McKinsey . 2011 datapoint based on UN statistics.

2020

2030

THE EMERGENCE OF 3 BILLION MIDDLE-CLASS CONSUMERS

Global middle class\* - billions of people

3.2

Rest of the world

1.8

2011

North America & Europe

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DELAVAL CUSTOMERS

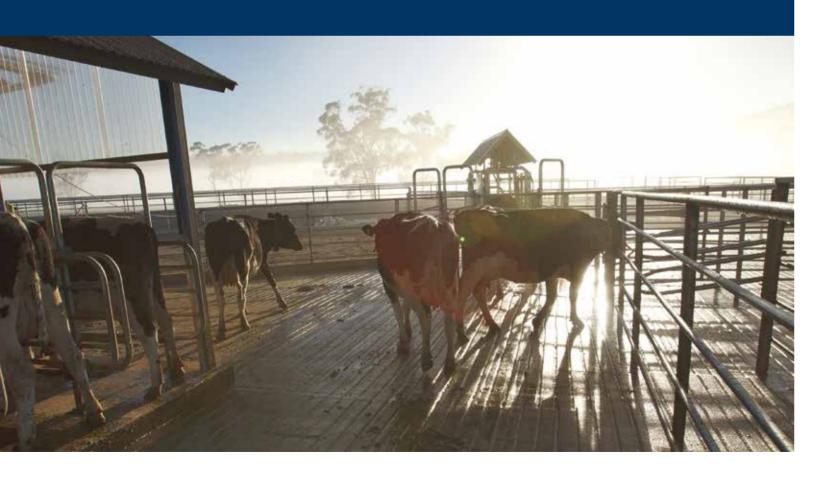
# OUR SOLUTIONS ARE USED BY DAIRY FARMERS AROUND THE GLOBE EVERY DAY

As a leading supplier of solutions for professional food producers, DeLaval offers products, systems and services for all steps of milk production. DeLaval's integrated solutions are used by over one million customers around the world.

DeLaval is committed to meet the needs of different customer segments using DeLaval equipment, from mega farms with thousands of cows to farms with smaller herd sizes. Much focus is put on developing dairy farms in emerging countries where the demand for milk is growing. The trend is that farm performance is becoming more and more important as competition increases.

DeLaval is at the forefront of developing total farm management solutions, with the flexibility and productivity that customers need, as well as the highest quality aftermarket products, support and services.

Many customers prefer full solutions from one single supplier, with advisory support on how to get the most out of their farm, others seek the knowledge themselves and make their purchases through online channels. To meet the increasing global demand for food is a challenge for every food producer today. DeLaval supports farmers in how to carry out their operations in a profitable way while reducing their environmental footprint and improving the well-being of the people and animals involved. Among the most important issues are saving energy, reducing water consumption, improving animal health and increasing milk yields.



# DeLaval supports Brazilian model farm

When Fonterra decided to set up its first wholly owned farm in Brazil, the company – based in New Zealand and one of the world's biggest dairy exporters – turned to DeLaval for help in finding the best sustainable solutions.

The 2,500-cow farm is equipped with a wide range of DeLaval solutions, from the DeLaval parallel rotary, PR3100, with the DelPro™ Farm Manager integrated system, to energy-saving systems such as DeLaval plate cooler and heat recovery module.

### A MODERN FARM

For Fonterra, safe, high quality, traceable milk is non-negotiable, with performance and knowledge being the cornerstones of successful dairy farming. To that end, DeLaval is supporting Fonterra with a complete training programme to ensure equipment is used optimally, as well as the InService<sup>TM</sup> preventative maintenance programme.

"This project is an excellent opportunity for us to show an example of a modern dairy farm designed to be efficient and sustainable," says Renato Mendes, Large Projects Manager, DeLaval. "What we learn at this farm will be applicable not only at other farms in Brazil but for the whole of Latin America."

# SUSTAINABILITY AN ECONOMIC REALITY

Fonterra's farm dairy operation is based on technology, cow comfort, water recycling, low energy consumption, low greenhouse gas emissions and efficient manure handling.

"DeLaval's approach to sustainable dairy farming was a factor that Fonterra considered when developing its project", says Tony Eyres, GM Operations for Fonterra's International Farming Ventures. "Working collaboratively was also vital, backed up by good knowledge and a wide range of solutions," Tony Eyres adds

For Brazilian dairy farmers such as Fonterra, sustainability isn't just greenwash – it is a serious economic reality. Before banks will finance farms, farmers must have valid environmental licences. Environmental authorities closely review licence applications to ensure

farmers are meeting environmental standards and they regularly monitor farms once operations are up and running.

New farmers must also leave at least 20 per cent of their land untouched and have a detailed and sustainable water use plan. And they must be able to show that effluents will be properly handled.

For Fonterra, safety, quality, sustainability and performance go hand-in-hand in all its operations worldwide.







DELAVAL CUSTOMERS





# Polish farm showcases equipment in action

The Zawadzki family has been running its farm in Poland for three generations and DeLaval has been helping them since the 1970s. With its 160 dairy cows, as well as beef cows, the farm today is a model for the whole region and a place where DeLaval can bring potential customers to see DeLaval equipment in action.

The Zawadzki's buy their equipment from DeLaval as well as aftermarket products.

The family says it buys from DeLaval because it has the most modern, best quality equipment and excellent service.

## LACK OF LABOUR, STILL MORE FLEXIBILITY

Since 2008, the Zawadzki's have used the DeLaval VMS™, voluntary milking system, for automatic milking. The family says that with VMS its expectations have been met in full.

Jan Zawadzki, 49, who runs the farm with his wife Regina, 50, have more leisure time because of VMS. Their five grown up daughters, who also actively help run the farm, have more flexibility as well.

And, a lack of qualified labour means that more robotic equipment and automation is needed on the farm.

The Zawadzki's feel that DeLaval can be counted on to provide the most modern

equipment to suit their needs and help improve the farm's profitability.

In addition, they appreciate DeLaval's professional service and advice. Overall, the family trusts DeLaval and the Zawadzki's feel, they have a good relationship with the company.

Jan Zawadzki says "it is of great importance" that DeLaval has a complete range of equipment and aftermarket products because delivery from DeLaval across the supply chain makes running the farm much easier.

# AN ACTIVE PARTICIPANT IN THE DEVELOPMENT OF MILK PRODUCTION

DeLaval has been in Poland for 89 years and the company name is well known because of milking machines that were produced under licence from DeLaval in Wroclaw since 1972.

As the situation in Poland began changing in the early 1990s, DeLaval became actively involved in training

farmers and others involved in milk production. Literally thousands of people received training, either at DeLaval's two training centres in Wroclaw or at seminars in the field.

DeLaval has also produced a series of books on milk production, discussing the most modern technology and how it can be adapted to the Polish market. Through its efforts, DeLaval is not just a seller of equipment and aftermarket products in Poland but an active participant in the development of milk production. That's something DeLaval strives for wherever it operates.

Despite the challenges of farming and milk production, Jan Zawadzki remains convinced that generation to come will continue running the farm.

"You have to like animals and look toward the future," he says. "The secret is working with all our hearts and with passion."

# First VMS<sup>™</sup> in Ukraine and Kazakhstan

With the installation of VMS™ voluntary milking system units in Kazakhstan and Ukraine in 2012, DeLaval took an important step in expanding in the Russian and Central Asia Republics (RUCAR) market.

The RUCAR region is one of the key, growing markets for DeLaval, which plans to build long-term partnerships with farms in the region. In addition to equipment, DeLaval's goal is to provide service and aftermarket products to farms along the entire supply chain.

Farm managers in the RUCAR countries often operate mega-farms with hundreds of cows and want the most modern technology and information to run their businesses as efficiently as possible. That ensures high milk yield, better profitability and environmentally sustainable farming.

Six VMS were installed in December 2012 at the mega-dairy farm LLP Bobrovka in Kazakhstan. Within three weeks, milk yield had increased from seven to 11 litres.

In Ukraine, the Terezino farm has installed eight VMS units at its megadairy complex. Farm managers say VMS makes milking the 500 cows much easier and fits well with its operating philosophy. The farm was already using DeLaval milking parlours.

Plans are under way to install another six VMS units at LLP Bobrovka and another eight at Terezino.

# OPERATING AT VERY LOW TEMPERATURES

Installing the VMS units and ensuring proper operation at both farms was challenging.

In Kazakhstan, the VMS units had to be capable of operating at temperatures as low as -53°C. Working together, the DeLaval team and farm staff were able to achieve this.

To help cover the cost of installing the VMS units, Tetra Laval Finance provided a financing package and consulting services.

In 2012, 200 VMS units were operating in the RUCAR countries. By mid-2013, another 100 units are expected to have been installed, says Nikolay Timoshenko, President of the DeLaval RUCAR Sales Company.

"We are extremely happy with the success of the VMS installations," Timoshenko says. He notes that there was immediate investor interest when VMS was introduced in Russia in 2007. Since then, DeLaval dealers have built up a service centre network and a system to gather customers' on-line feedback, and offer special service when VMS units are first installed to ensure smooth operation.

"The idea," says Timoshenko, "is to make customers' lives easier."



DELAVAL TECHNOLOGY

# Cow health and profitability, a question of aftermarket and consumables

For dairy farmers, the right equipment is critical for cow comfort and health and sustainable farming.





But DeLaval aftermarket and consumable products are equally critical.

Liners, for instance, play a vital role in reducing mastitis, increasing cow comfort and getting higher milk yield. Fewer cases of mastitis not only mean higher yield, but also healthier cows and better food safety.

Extensive testing shows that using DeLaval liners can mean a 10 percent higher peak milk-flow rate compared to similar products. Because milking times are shorter, more cows can be milked per hour.

Tim Nicolaï, DeLaval Vice President Business Area Aftermarket & Services, notes that exhaustive research and development go into all of DeLaval's aftermarket and consumables products. A liner, for instance, can take two to three years to develop, including extensive testing on test farms.

"These are not just generic products, but products developed after our intensive research and development, products the customer really needs," he says.

At first glance, it may seem that many aftermarket and consumable products are alike and that buying the least expensive products means saving money. But if items such as liners wear out quickly and don't perform

well there will be lower milk yield and more frequent replacement. In the end, DeLaval products can prove to be less expensive far beyond just their cost.

### **TAILORED PRODUCTS**

DeLaval tailors its products to different regions, according to customer needs and local laws and regulations. That can mean adjusting products to meet differing standards everywhere from the European Union over Northand Latin America to China and Russia.

For customers, that commitment means they can buy DeLaval products with confidence.

In 2013, adds Nicolaï, DeLaval plans to spend even more on research and development.

In addition, more mobile shops will be added to bring products to farms more quickly and more often. And there will be more training for service technicians, as well as a greater number of technicians and certified points of sale.

# PRODUCTS IN ACTION AT HAMRA FARM

DeLaval doesn't just tell customers about the benefits of its products, Nicolaï points out. Customers can see for themselves at DeLaval's Hamra farm at its headquarters in Tumba, Sweden. By using its own products at Hamra, one of the largest commercial farms in Sweden, DeLaval is showing customers that they can trust those products.

Milk filters are another key DeLaval product that help ensure the best milk quality and aid farmers in improving profitability. DeLaval is the world's largest supplier of milk filters.

Modern filters need to be strong, since today's milking technology means yield is higher than ever before. Filters not only need to be able to retain their shape but also stand up to everything from manure to insects and alkaline or acid detergents.

DeLaval filters are food grade certified. And that again means better food safety and biosecurity.

## INDEPENDENT RESEARCH VERIFIES FINDINGS

Independent research verifies the company's findings. Findings from a wide range of universities, including the universities of Wisconsin and Cornell in the US, Universidad de Caldas in Colombia and the University of Puerto Rico in Puerto Rico, SLU in Sweden as well as several other European universities, show that quality products help reduce disease.

That includes not only liners and filters, but also products such as hoof bath which kills bacteria, helps prevent lameness and contributes to better cow comfort. When it comes to disease and economical losses on farm, lameness is the third largest cost for dairy farmers, after mastitis and fertility related disorders

By providing the best quality aftermarket and consumable products, DeLaval is continuously working to meet customer expectations and help farmers improve their profitability and their farm's environmental sustainability.

# Smart farm management key to future success

Today's rapid technological development is putting farm management on a whole new level. With advanced herd management tools farmers can monitor their herds better and improve the efficiency of milk production.

"To be able to make smart decisions, you need accurate and relevant data," says Fernando Mazeris, Director of Farm Management Support Systems at DeLaval. "Our intention is to integrate everything on the farm, all of the data coming from different systems. Using such a rich data set, we can process the data with artificial intelligence and deliver a suggestion of actions to our customers."

With DeLaval's farm management concept, data is provided on many aspects from cows with mastitis or other illnesses, to cows suffering reproductive disorders or are in heat. Basic training is also provided so that farmers know how to get the most out of the concept.

DelPro™ Farm Manager, launched at the EuroTier exhibition in Hanover, Germany, in November 2012, provides the platform for DeLaval's farm management concept (read more on page 99).

It integrates data from a variety of DeLaval equipment and systems, such as the different milking systems, Herd Navigator™, online cell counter, OCC, and DeLaval Optifeeding™, to improve farm management and help farmers make better decisions with less labour involved.

# A FARMER'S HELP TO BETTER DECISIONS

In just the past five to ten years, farm management has been greatly enhanced by rapidly developing technology.

Farmers can choose how they want to receive information – be it on touch screens, PC, via urgent notifications through a smart phone app or remotely over a secure internet connection.

"With DeLaval's integrated farm management, data is presented in the most user-friendly way. It is collected and organised so that farmers get the most benefit instead of 'drowning in data," Mazeris says. In other words, the right data is in the right place at the right time.

"Because of the shortage of qualified farm labour and the increasing move to automation, farm management is becoming more and more important", he adds.

The human touch is still vital, but with proper farm management time is

saved, cow health is improved, and farms become more sustainable.

"Instead of trying to deal with 1,000 cows, one person can review the data and then take action, dealing with only those cows that need extra attention."

Intelligent farm management and a holistic approach, is what customers expect from DeLaval, and Mazeris believes the trend towards ever-more sophisticated farm management will continue as technology continues to develop. In five years, he sees management systems with even more parameters, including more advanced milk and genetic analysis.









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DELAVAL SOLUTIONS

# Flexible Barn System Controller – a one-stop management

With DeLaval barn system controller, BSC, dairy farmers have a unique, integrated, flexible tool for handling every barn system in one simple unit.





### **ONE SYSTEM SAVES TIME**

Instead of a variety of systems to monitor various applications and operations in the barn, BSC ties everything together. With one system, dairy farmers can monitor everything from cow cooling to alley and gutter cleaning and manure transfer.

In the future BSC will also be connected to DeLaval DelPro™ Farm Manager, another revolutionary farm management system, which integrates milking, feeding and automation systems into a centralised operation. Using the two systems means time savings, as well as better, more sustainable farm management, higher milk yield and greater profitability.

BSC can save farmers time, says Emanuel Geoffroy, DeLaval Business Development Manager. That means more leisure time for farmers as well as more precise monitoring of systems.

### LOWER INVESTMENT COSTS

Farmers can also reduce investment costs by as much as 70 per cent using the centralised BSC tool instead of separately monitoring each system and piece of equipment in a barn.

And farmers can choose exactly how they want to use it.

BSC is managed as stand alone or through a computer, via the Internet. That way, regardless of where farmers are, they can monitor what is happening in their barns and take action.

The system also uses an icon-based interface, making it intuitive and easy to operate.

At the 2012 EuroTier show in Hanover, Germany, BSC won the silver medal for innovation. EuroTier is the world's largest agricultural trade show.

"Sustainability, user-friendliness and optimal animal welfare were the three primary objectives throughout our product development phase," says Geoffroy. "This medal recognizes the importance of these objectives but it also demonstrates that DeLaval as a company are committed to improving cow comfort and animal welfare by delivering complete and integrated solutions.

"From the interest the product generated at EuroTier, we really see that we're going in the right direction in meeting customer expectations," he adds.

### **BSC AND SUSTAINABILITY**

BSC saves energy and prolongs the operating lifetime of other barn equipment by ensuring that equipment runs only when it's needed. Using sensors, BSC turns on lights, fans and other equipment when necessary, instead of the devices running all the time.

Making sure that barn lighting is optimum also helps increase milk yield.

By integrating all barn systems, BSC means more sustainable dairy farming and better cow comfort. "That", says Geoffroy, "is the beauty of BSC."









# DelPro<sup>™</sup> offers integrated farm management system

With the launch of DelPro™ Farm Manager, DeLaval is offering a revolutionary, flexible and complete system for managing dairy farms. It's a system that saves time and money and one that also means healthier, more contented cows.

"With DelPro<sup>TM</sup>, farmers can manage any kind of dairy farm," says Shaul Tcherikover, DeLaval Business Development Manager, Farm Management & Automation. "This isn't simply software any longer, this is a management system."

DelPro works with DeLaval VMS™ voluntary milking system, stanchion barn milking units, and parlours and rotaries, including DeLaval automatic milking rotary AMR™. Because it is so flexible, it can be used with herds of any size and farmers can change or upgrade their equipment without having to change farm management systems.

Accessing DelPro is also flexible; it can be used with stationary computers, laptops and touch-screen devices. For farms with VMS, a smartphone application is also available.

That makes the system user-friendly and ensures consistency, no matter how data is accessed. DelPro can also be managed with other key DeLaval products such as the Herd Navigator<sup>TM</sup>.

## **DATA DRIVES GOOD DECISIONS**

DelPro manages a wide variety of farm systems and sensors. Data is recorded and analysed to help farmers make the best decisions about everything from cows' health to feeding and breeding.

One of the key features of DelPro is that it operates on the principle of management by exception. "That means", says Tcherikover, "that farmers can programme the system with exactly the parameters they choose, and then focus on the deviation."

"There's a huge amount of data

coming from the system's sensors,"
Tcherikover explains. To best use that
data and optimise DelPro for farmers,
parameters can be set so that cows due
for breeding can be flagged by the system, as well as those due for veterinary
visits and those that are sick. Labour
and parlour performance can also be
monitored, as well as feeding routines.

Instead of trying to follow every cow in the herd, farmers can follow only those needing special attention at any point, saving time and money. First thing in the morning, farmers can review the information provide by DelPro. That means the day starts with a thorough overview, leading to more time with the herd and less time in front of the computer.

### A GLOBAL EFFORT

In 2012, DelPro Farm Manager was installed at several farms in Europe and two farms with thousands of cows in the US: one in the state of Wisconsin and the other in California.

Specialists from DeLaval headquarters in Tumba, Sweden, spent a week at each farm during installation to help farmers learn how to use the system and make sure it is working optimally.

Local service technicians are also being trained so they can provide the best service to the farms. Tcherikover calls the training "a global effort".

With its user-friendly interface, flexibility and unique management system concept, DelPro Farm Manager offers the best in farm management, whether you have a small or large herd.

# Dairy awards recognise best sustainable farming

Food production has to become sustainable, and making it sustainable is possible. That is the new vision of DeLaval. And it is the key reason for the company's gold-level sponsorship of the U.S. Dairy Sustainability Awards.

The awards are organised by the Sustainability Council at the Innovation Center for U.S. Dairy, a part of Dairy Management Inc. DeLaval joined the Sustainability Council as a founding member in 2009.

# REDUCING THE ENVIRONMENTAL FOOTPRINTS

To DeLaval, sustainable food production is reducing the environmental footprint of farms, while improving milk production, farm profitability and the well-being of the people and animals involved.

To help reach the goal of truly sustainable farming and food production, the Sustainability Council seeks to recognise the best practices through the U.S. Dairy Sustainability Awards. The awards recognise outstanding performance in sustainability.

The awards are since this year divided into four categories: Outstanding Dairy Farm Sustainability, Outstanding Dairy Processing and Manufacturing Sustainability, Outstanding Achievement in

Renewable Energy and Outstanding Achievement in Energy Efficiency.

Three U.S. dairy farms won awards in 2012: Blue Spruce Farm in Vermont, Holsum Dairies in Wisconsin and Werkhoven in Washington State.

# TECHNOLOGY DRIVES SUSTAINABILITY

New technology is helping farms become more sustainable. Systems such as DeLaval DelPro™ Farm Manager and barn system controller BSC, help farmers better monitor everything from cow health to water consumption, allowing them to improve sustainability and use fewer resources.

### **DO MORE WITH LESS**

Dairy farmers at the forefront of sustainable farming are using low-temperature detergents, like DeLaval RTD™ reduced temperature detergent, to save significant amounts of money and energy. Better management of manure is helping to cut greenhouse

gas emissions, and can also help making fields more productive if used as a fertilizer.

DeLaval recognises these efforts as being key for sustainable farming and food production.

"We are part of a value chain that needs to ensure food safety and security for a growing world population," says Christian Poggensee, DeLaval Regional President, North America.

"While food producers are facing demands to increase productivity, they also need to reduce their environmental impact. By teaming up with customers, DeLaval can support them with the technology and knowledge they need to be more efficient – to do more with less."



# Grants help save energy and boost sustainable farming

Save energy, save money and make farming more sustainable. In Denmark, all three goals can be achieved with the help of DeLaval energy audits and grants for energy efficiency.

Arla, a dairy company based in Denmark which is owned by member farmers, is one of those committed to saving energy and to sustainable farming. By 2020, Arla's goal is to buy milk only from sustainable farms.

# ENERGY AUDITS IMPROVE EFFICIENCY

Farmers have cut energy consumption and, as a result, greenhouse gas emissions, thanks to energy audits and energy efficiency measures.

DeLaval offers a wide range of ways to improve energy efficiency, with substantial cost savings as a result. A heat recovery system, for instance, means better control over water temperature when cleaning milking equipment and cooling tanks. Heating less water means lower utility bills. Pre-cooling of milk is another way to save energy, savings which can add

up to about 1,340 Euro annually. An added benefit is that the water used in a DeLaval plate cooler can be used as drinking water for cows.

### **A WIN-WIN SITUATION**

When DeLaval energy efficient equipment is installed, DeLaval does all the paperwork associated with applying for grants.

For dairy farmers, "there is absolutely no reason to postpone such energy and cost savings. It's a pure win-win situation," says Jens Christian Flye, manager of Arla's Sustainable Milk project.

"We need as many people as possible to contribute to the common goal of truly sustainable farming," he notes, and energy saving is a big step in the right direction.



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# **Sharing ideas on how** to do more with less

Sustainability at DeLaval is all about teaming up with customers to increase resource efficiency on farms in a responsible manner. Or, put another way, to support customers in how to do more with less.

"Although we can make our biggest contribution by increasing resource efficiency on farm, this way of thinking is just as relevant for our own operations," says Mark Blake, Manager for Corporate Social Responsibility. "Employee engagement makes or breaks sustainability initiatives and continuous improvement depends on a constant stream of ideas."

## **TURNING GOOD IDEAS ON**

For manufacturing units, energy, water, waste and hazardous substances are areas of significant environmental impact, with workplace safety as a fundamental social responsibility.

"Each year, employees at DeLaval submit hundreds of suggestions on how to improve the workplace. In 2012, more than 300 suggestions

were submitted," notes Kristian Björkman. DeLaval Global Manufacturing Director. "In Tumba alone, 42 improvements were implemented to improve the workings of the factory."

Just one example is energy use, where the goal is to save five per cent electricity each year, irrespective of product volumes.

Thomas Tschee, Production Engineering Manager in Tumba explains how he approached the challenge. "We started by mapping our critical areas of use and prioritized activities. To mention a few, we have switched from fluorescent lighting to low energy lights, timers have been installed on fans and lighting and we have made our heating system and compressors more efficient to eliminate heat and air waste. All these things combined



The first, public DeLaval Environmental and Social Report was published in May 2012. The report is a base for sharing key, material environmental and social aspects of our business with major stakeholders. To find our more: http://www.delaval.com/ en/About-DeLaval/Sustainability/

And don't hesitate to share your comments and ideas with us.

have resulted in a reduction of our electricity use by 12 per cent in 2012," says Tomas.

Another example can be found in Drongen, Belgium, where LightCatchers from a local supplier have been installed on the factory roof to maximize the use of natural light. An elegant, simple solution that started with an idea from an employee.





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# Review of 2012 – predictable volatility and measured response



In the first half of the year, fears of European sovereign debt default and subsequent contagion intensified and lead to the Euro weakening against most major currencies. The Euro weakened by 9 per cent against the US dollar, 5 per cent against the Renminbi and 8 per cent against the Swedish krona. Over the same period, the Euro strengthened by 10 per cent against the Brazilian real. The slowdown in global growth contributed to commodity prices falling considerably. From March 2012, in Euro terms, polymer prices fell by 24 per cent and aluminium by 16 per cent within four months.

## CONFIDENCE RETURNED IN THE AUTUMN

From September 2012 confidence started returning to the markets following promises made by the ECB to provide full backing to the Euro. This has resulted in the Euro appreciating against most major currencies and commodity prices returning to the levels seen at the beginning of 2012.

Following the volatility of the exchange rates in recent 6 years, the value of the US dollar is currently close to its 7 year average against the Euro. Group costs have been negatively impacted by the appreciation of the Swedish krona against the Euro but this has been offset by the weakening of the euro against the currencies of many of our major markets.

## **VALUE DELIVERY**

Competition continues to intensify across all our markets and although much has already been done to respond to these challenges we will need to go further and faster to secure productivity improvements and cost efficiencies throughout the Group. This will allow us to price competitively while continuing to invest in our sustainable growth agenda.

### **FINANCIAL INITIATIVES**

Opportunities were identified for hedging, enabling risks to be mitigated in a simpler and more cost effective manner. A new financial counterparty risk policy was implemented ensuring the exposures are monitored and acted on in a timely manner. Our financial

initiatives foreign exchange hedging strategy using a combination of forwards and options enabled us to protect the Group against negative exchange movements whilst also allowing us to benefit from favourable exchange movements.

# RELIABLE CASH FLOW FORECASTS

TLI has worked with the Industry Groups to define an acceptable range of fore-cast variation, ensuring accountability for the key assumptions and a clear process for variance analysis. This has lead to further improvement in the accuracy and quality of forecasts provided to the Board.

# UPDATE OF RISK MANAGEMENT AND INSURANCE PROCESSES

An updated risk management methodology was rolled out and implemented throughout the Group. Insurance processes were reviewed and mapped and metrics introduced to measure process speed and efficiency.

A project has been launched to improve efficiencies in insured employee benefits through global ownership; the first phase of the project will be completed in 2013.

### **OUTLOOK FOR 2013**

The end of 2012 and beginning of 2013 was marked by cautious optimism in the financial markets with the Euro appreciating against most major currencies, commodity prices increasing and long-term US interest rates rising.

The impact of this has been largely mitigated through our Group hedging strategy.

However, the recent elections in Italy showed a strong vote against austerity measures resulting in renewed pressure on the Euro, reminding us that the years ahead are likely to remain volatile. The markets will be looking for signs of improvement in global growth during 2013. Growth is expected to improve

modestly in Asia, the US and Latin America compared to 2012 whilst the Eurozone, which is currently in recession, is not expected to grow until mid 2013.

The obvious main risks to global growth this year will still stem from the Eurozone and the US. Recent GDP figures show that the Eurozone contracted by 0.6 per cent the fourth quarter of 2012, the sharpest contraction since the beginning of 2009. In the US, failure to reach an agreement on spending cuts and the debt ceiling could lead to a substantial downward revision in the US growth. There is also a threat from escalating currency wars and evolving geopolitical risks.

### **INITIATIVES DURING 2013**

During 2013 TLI will complete several key projects. We will continue to support the Board in Group cost initiatives to improve competitiveness and complete the finance strategy initiative incorporating sensitivity analysis and scenario planning into our long term strategy. There will also be a review of the corporate governance framework and the Group Finance & Control policies will be updated. High volatility in financial markets has become the norm rather than the exception over the past five years. Close collaboration with the business units ensures that the risks and challenges facing our business are analysed, understood and managed in the most effective manner.

Finally, I am pleased with the way that our team adapts and learns and I am confident that we will continue to deliver excellent results in the face of the challenges that 2013 will bring.

Martyn Zedgitt









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TETRA LAVAL INTERNATIONAL MANAGEMENT













- 01. **Martyn Zedgitt** President
- 02. **Marc Häfliger**Operations & Administration
- 03. **Robert Norris**Group Financial Planning & Reporting
- 04. **Jörn Rausing**Mergers & Aquisitions
- 05. Emilio Ruiz-Berdejo
- 06. Robert Swan

# Turning challenges into possibilities in Nicaragua

The dairy sector in Nicaragua in Central America has many obstacles to overcome. But with a dedicated dairy processor and support from Tetra Pak and DeLaval there is a huge potential in providing consumers locally produced quality milk, and at the same time improving dairy farmers' livelihoods.





Nicaragua is the poorest country in Central America with major social challenges like malnutrition and low level of education. Almost half of the population live below the poverty line despite the country's richness in natural resources. The conditions for local food production and sustainable dairy farming are, in some areas of the country, extremely tough due to long dry seasons and lack of sufficient infrastructure.

The dairy sector in Nicaragua has a history of struggling with a number of challenges - such as inadequate cooling chain, lack of infrastructure and

seasonal differences in production. The seasonal differences result in a decline in milk production during the dry season, and a surplus during the wet season – in fact, Nicaragua is one of few countries in America that periodically has a milk surplus. The uneven production of milk has led to sharp price fluctuations, and the poor milk quality has made it problematic for processors to regularly deliver quality dairy products to consumers. One of the continuing challenges has been the collection of good quality milk.

According to the Ministry of Agriculture, milk production grew 21.1 per cent

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between 2006 and 2011, with a total of 779 million liters produced by 2012. However, only 56 per cent is formally collected, and 65 per cent of the dairy farms are still small or medium sized. Also, milk consumption in Nicaragua is one of the lowest in the region and the sector has had to focus on exporting UHT (ultra high temperature) processed milk and cheese products.

The demand for high milk quality will continue to grow, and there is a good potential to grow the export market which has increased strongly in recent years. Meanwhile, local consumers will also gain from having more and better access to safe processed milk.

## INTRODUCING ASEPTIC TECHNOLOGIES

The dairy processor Centrolac, founded in 2007, is a key customer to Tetra Pak in Nicaragua. They were the first dairy processor in Nicaragua to introduced UHT processed milk to the market by using aseptic technologies. This means that milk and food can be kept safe for many months without preservatives or refrigeration.

"We have an ambition to increase our milk intake and improve the milk quality. In this way, more people will have access to locally produced quality milk the whole year and at the same time livelihood of local dairy farmers will be improved," says Alfredo Lacayo, CEO at Centrolac.

# WORKING TOGETHER WITH SMALL-HOLDER FARMERS

Tetra Laval's Food for Development Office (FfDO) – a joint initiative between Tetra Pak and DeLaval – has vast knowledge in how to support the development and improvement of the dairy value chain in a country. FfDO has supported dairy development projects in many countries such as Bangladesh, Sudan and Pakistan. A model called the Dairy Hub model has been developed, and is addressing cooperation between small holder farmers and dairy processors.

In Nicaragua, FfDO initiated a dialogue with Centrolac and the US based investment company Venture Dairy in October 2011 to explore the possibilities to set up a dairy development project. In May 2012, a formal partnership was founded for the project including Venture Dairy, Centrolac, FfDO and the beef processor San Martin and the Centrolac Cattle Hub Centre was established. This approach is a little bit different compared to how it has been carried out in other countries. In Nicaragua the farmers – instead of the dairy processor – own the milk collection centres, and many of the

farmers are both cattle meat and milk producers. Hence the set-up in Nicaragua is called a Cattle Hub.

The average milk production per cow and day in Nicaragua is estimated to be 2-10kg which is considerably lower than in more developed markets. The goal is to double the average milk production per cow and day, and to increase profitability for the farmers.

"Our goal for the first year was to have 20 farms utilizing the services of the Centrolac Cattle Hub Centre, which was reached by the end of 2012. These farms are functioning as model farms that will illustrate how milk production per cow can be increased and how the quality of the milk can be improved with practical training and advice about feeding, hygiene and animal health. We already see interest also from cooperatives to establish cooperation with the Hub at central

level, to support their members", explains Stefan Bergstrand, Dairy Expert at DeLaval and FfDO.

### PROVIDING CHILDREN WITH MILK

Despite the seasonal surplus of milk in Nicaragua, consumption of milk is low at a national level in the country. Initiating a school milk programme linked to dairy development is a way to create a win-win solution. Making quality milk consumption a habit and at the same time improving health and nutrition of school children is a successful model to create a market for processed and packed milk. FfDO has been approaching the Ministry of Education and Ministry of Agriculture in Nicaragua with recommendations to start a school milk programme.

"Our contacts with the authorities have been very positive. Eventually, the congress has ratified a new law which makes it possible to implement a school milk programme in Nicaragua," tells Rafael Fabrega at the Tetra Laval Food for Development Office.

"As the establishment of the hubs continues and the collection of quality milk increases, the conditions will be mature for launching the school milk programme. Our ambition is to improve the nutritional status of the children and increase milk consumption with a long-term view in mind," concludes Rafael Fabrega.

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## **GROUP FUNCTIONS CONTACT DETAILS**

**GENERAL COUNSEL** THOMAS ANDERSSON Thomas.Andersson@tetralaval.com TEL. +46 8 679 2078

COMMUNICATIONS JÖRGEN HAGLIND Jorgen.Haglind@tetralaval.com TEL. +46 46 36 4610

HR ANDREAS KARL Andreas.Karl@tetrapak.com TEL. +41 21 729 2424

**MERGERS & ACQUISITIONS** JÖRN RAUSING Jorn.Rausing@tetralaval.com TETRA LAVAL **CASE POSTALE 430** 70, AVENUE GÉNÉRAL GUISAN CH-1009 PULLY, SWITZERLAND TEL +41 21 729 22 11 WWW.TETRALAVAL.COM

TETRA PAK INTERNATIONAL S.A. CASE POSTALE 446 70, AVENUE GÉNÉRAL GUISAN CH-1009 PULLY, SWITZERLAND TEL +41 21 729 21 11 WWW.TETRAPAK.COM

SIDEL INTERNATIONAL AG BÖSCH 67 CH-6331 HÜNENBERG SWITZERLAND TEL.+41 41 785 23 60 WWW.SIDEL.COM

**DELAVAL INTERNATIONAL AB** P.O. BOX 39 **GUSTAF DE LAVALS VÄG 15** SE-147 21 TUMBA, SWEDEN TEL +46 8 530 660 00 WWW.DELAVAL.COM

TETRA LAVAL INTERNATIONAL S.A. **CASE POSTALE 430** 70, AVENUE GÉNÉRAL GUISAN CH-1009 PULLY, SWITZERLAND TEL +41 21 729 22 11 WWW.TETRALAVAL.COM



TETRA LAVAL
CASE POSTALE 430
70, AVENUE GÉNÉRAL GUISAN
CH-1009 PULLY, SWITZERLAND
TEL +41 21 729 22 11
WWW.TETRALAVAL.COM

