The independent news provider for the global tissue business

TISSUE WORLD

MAY / JUNE 2014

TW Americas breaks all the records

RETAIL SPECIAL
TRIF reveals shifting trends facing global trade

PLUS
Benelux Regional Report
Technical Theme: Södra's half billion Euro investment

UBM

MCI (P) 171/12/2013

Ascending arrows

TISSUE WORLD

May/June 2014

In this issue

By **HELEN MORRIS**
Tissue World, Editor

BOLD INVESTMENT IN LUXURY PRODUCTS PAYS OFF AS STAYING AT HOME IS THE NEW GOING OUT

Staying in, our EuroMonitor report on the Benelux countries tells us, is the new going out.

What's happening in the At-Home category offers up rich promise for tissue producers, at least for the time being. Consumers have less money to spend as the wider European economy struggles to move up a gear from its sluggish post-2008 recovery. The word 'doldrums' is used... for those among you who are not ocean-going yachtsmen and women those are the low pressure areas around the equator which can result in days or weeks becalmed.

So a night out at the restaurant is less frequent. Instead, back home preparing the evening meal... Belgians with their filet Americain with croquettes, waffles and Duvel, and the Dutch with their Waterzooi stew and chipolata pudding with Grolsch (apologies if I've offended any national etiquette there) are trading up by using premium quality tissue products in the kitchen and for the dining table to create a more stylish ambiance for their evening meal.

Trading up to the extent that retail tissue posted 2% value growth at Euro 303m in Belgium and 5% at Euro 511m in The Netherlands. Luxury bathroom tissue confirms the trend, the Netherlands seeing 6% value growth. This is on top of value-for-money brands remaining a price-conscious favourite as the strength of private label demonstrates.
Savvy marketing has capitalised on At-Home: six rolls plus two free, 32 rolls plus eight free, jumbo, mega and economy packs, premium paper with almond milk, wet toilet paper complete with a hanging mechanism for convenient storage.

Innovation costs, but it also inspires branch loyalty into the future.

TISSUE WORLD AMERICAS 2014 AND THE LAUNCH OF TRIF

Tissue World Americas 2014 was officially the most successful Tissue World Americas show ever.

New records were broken in every respect: 1,931 participants, 173 exhibitors of which 51 were first time exhibitors, some 457 registered attendees at the conference, the launch of the Tissue Retailers and Distributors Insight Forum (TRIF).

Participants came from 69 countries, including 1,069 from the USA, 78 from Brazil, 99 from Canada, 71 from China, 166 from Italy and 27 from Turkey.

All of which reflects the developments of the continually evolving and dynamic American tissue market.

Read our summary of the event and key conference themes in this issue. Talks covered the latest key trends in the global tissue industry, from evolving consumer and retail trends; private label versus brands; sustainability; Greenpeace and WWF viewpoints on the tissue industry; energy savings; how large retailers are meeting sustainability challenges through to the latest developments in NTT, ATMOS, ADT and TAD technology.

On the back of the launch of TRIF, TW magazine's new Retail Special feature also takes a look at some of the key talks from the Miami trade show. Read what American Paper Converting, Nielsen, Mintel and WWF among many others had to say.

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TISSUE WORLD is published bi-monthly. The subscription price is US$400 per year for 6 issues. Subscription is free for qualified subscribers in the tissue industry.

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Subscription online at www.tissueworldmagazine.com

In Tissue World all measures are metric and all dollars ($) are US dollars, unless otherwise stated.

By *GREG GRISHCHENKO*
INDUSTRY EXPERT

Kazakhstan - emerging tissue market leader in Central Asia

Before the world economic crisis of 2008-2009 reached Kazakhstan, its local tissue market grew at 10% per year. Industry expert Greg Grishchenko gets the latest.

Along with the other central Asian republics, Kazakhstan gained its independence from the collapsing Soviet Union in 1991. The country inherited serious environmental problems from the Soviet era after intensive agricultural development and its use as a testing ground for nuclear weapons. The first and current President Nursultan Nazarbayev since the beginning of his term pursued a balanced foreign policy initiating an approval of the Nuclear Non-Proliferation Treaty in 1993.

Modern Kazakhstan is the largest landlocked country in the world and the ninth-largest country by area (2.7 million square kilometres) with a population of 17million. Its economy is developing rapidly with unique natural wealth and world class tourist sites. South Central Kazakhstan's city of Baikonur is known worldwide as a launch site of the Russian space programme.

The tissue segment in Kazakhstan has emerged in the early 1990s almost coinciding with the Soviet Union collapse when supply channels for such products from limited Russian sources began to deteriorate. In the Soviet-planned economy Kazakhstan was assigned to be an important industrial base for the USSR's military, space and nuclear programmes that included numerous manufacturing, mining and testing sites. Geographically set at mostly desert and steppe terrain, Kazakhstan is poor in forest resources (about 1.2% of its area), which is why the local pulp and paper industry never took off.

European made brands on sale in a Kazakh supermarket

A supermarket in Almaty

At that time new supply channels from neighbouring Russia, China and even distant Turkey brought in a variety of tissue products. The lowest price toilet rolls and napkins were converted locally from imported jumbo rolls by some newly opened small shops.

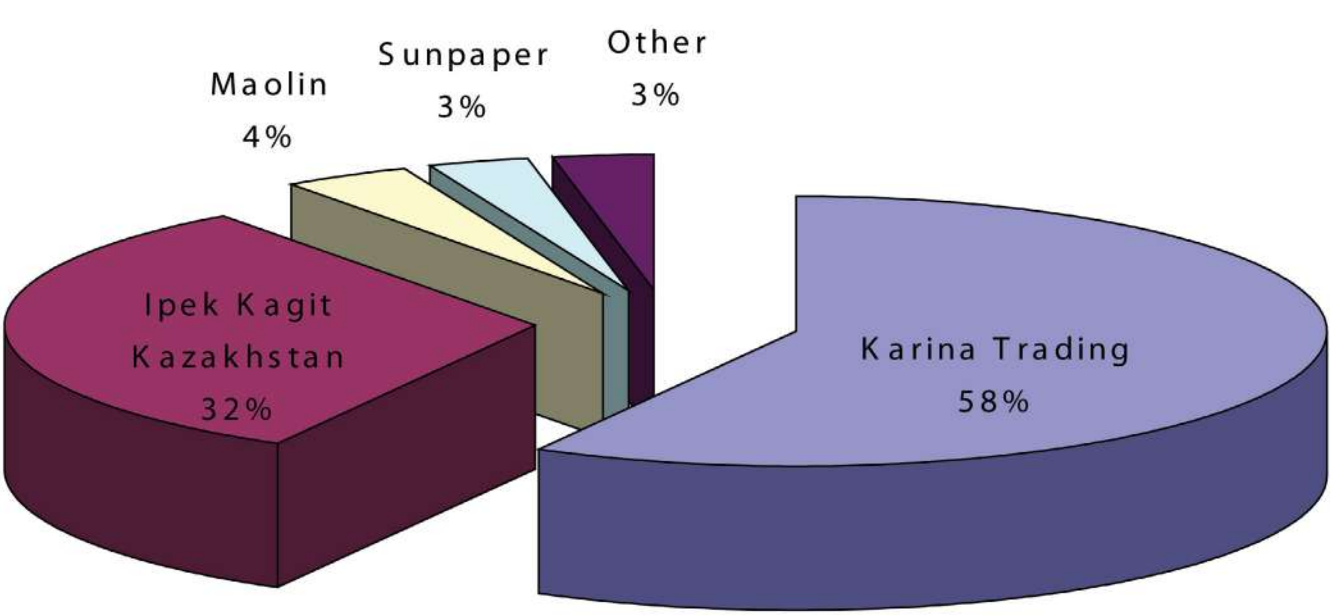
Before the world economic crisis of 2008-2009 reached Kazakhstan, the local tissue market grew at an average rate of 10% per year. Since 2011 after negative growth in 2009 and 2010 the market has recovered showing continuing mild growth in lower single digits with the highest increase in bathroom tissue. There is a considerable discrepancy in income between the wealthy and poor, as well as between the urban population of the large cities and the rural population of the country regions, where spending for tissue goods remains negligible.

The last four years, however, have seen some consumers steadily switch from economy brands to standard and even premium products benefited by the growth of disposable income. Advanced urban consumers are willing to pay more for greater comfort which is mainly offered by international manufacturers (especially in the incontinence segment) using more advanced technology than domestic suppliers. However, for the majority of the country's population a preference for products with lower price rather than higher quality prevails for the time being.

According to Euromonitor International, 83% of the country's $20 million tissue retail sales are bathroom tissue, with other tissue products like towels and napkins making 15% in 2012. Annual per capita tissue consumption is about 1.4 kg. Tissue imports in the form of higher quality bath tissue, kitchen towels and napkins are insignificant if compared with incontinence goods exclusively coming from multinationals such as Procter & Gamble Central Asia, Kimberly-Clark Corp and SCA.

While private labels do not exist, low priced economy tissue brands remained the most popular with consumers during 2012. Many leading international manufacturers and their local distributors within tissue segment have budget priced brands. However, the current leader of a standard and economy product range is Karina Trading TOO, domestic supplier located in Almaty with the second place held by Ipek Kagit Kazakhstan TOO, a subsidiary of the Turkish company under the same name. The AfH segment in Kazakhstan so

Tissue Manufacturing in Kazakhstan 2013



far is very small despite the country's strong mining and processing industries and is limited to growing fast food restaurant businesses.

RETAIL CHOICES

Independent small grocers (58% of tissue retail sales according to Euromonitor International) still currently prevail as a key distribution channel with convenient locations in residential areas across Kazakhstan. In recent years large cities have faced extensive growth in the number of supermarkets. While small groceries sell a limited range of mostly economy brands, supermarkets rely on better distribution systems and display a variety of both low-priced and luxurious tissue products for all regions of the country.

In 2012 the largest retail sales were reported by Magnum Cash & Carry TOO, followed by Ramstore Kazakhstan TOO. While international supermarket chains like Ramstore (Turkey), Metro (Germany) and Maxima (Lithuania), gradually increase their presence, domestically headquartered chains are more popular among consumers because its outlets work 24 hours, 7 days per week and offer affordable prices.

The diversity of tissue product brands in supermarkets closely reflects the country's proximity to manufacturing centres, establishing distribution affiliates in the country and "grey" market channels as well. With the absence of private labels, the bath tissue, kitchen towels and napkins which are on the shelves of supermarkets are of Mola, Lambi and Öko-Purex (Metsä Tissue), Kleenex (Kimberly-Clark), Zewa (SCA), Sammy (Wepa), Selpak and Silen (Ipek Kagit –Turkey), Karina (Kazakhstan), Veiro (Syktyvkar Tissue –Russia), Ruta (Ukraine) and even ClearWordPure from distant Clean Nara Co.Ltd (South Korea). Private label tissue products such as toilet paper and napkins in limited quantities occasionally appear in supermarkets, however, its presence is associated to mostly international chains.

MANUFACTURING

Kazakhstan produced approximately 31,000 tonnes of tissue products in 2012. In the planned economy of the Soviet Union, the Kazakh Soviet Socialist Republic was designated to be a mining, space and nuclear test/processing region. There was not too much room for the household products industry and basic tissue supplies were shipped from Russia. After independence, supply channels among former Soviet states were broken, creating a void in tissue and hygiene supplies that had to be filled. Tissue product economics (importing v making) created a group of local entrepreneurs willing to take risks. Some of them like Karina Trading grew into a leadership in this business becoming full cycle integrated tissue producer (see field report below), but some of them closed.

Out of the country's less than dozen tissue product manufacturers only Karina Trading TOO with annual capacity

Local economy brands on sale in a supermarket

approximately 18,000 tonnes can be considered a fully integrated producer. Ipek Kagit Kazakhstan, a fully owned subsidiary of Ipek Kagit, part of Eczacibasi Group based in Turkey, takes second place. The company was established in 2006 at first as a distributor and eventually opening converting facility near Almaty with annual capacity of about 10,000 tons.

The company Sunpaper, located in Almaty, is devoted to 100% virgin tissue converting into toilet rolls, kitchen towels and napkins for the AfH market. Despite its short four year history, it has received certification to supply the United States Armed Forces in Afghanistan through its GSA Global Supply Catalogue of the US General Service Administration.

Chinese company Maolin was established in 1995 in the Almaty suburb. The company reportedly makes its own tissue from recovered fibre on four small electric tissue formers from one to two tonnes per day. Maolin also converts 100% virgin fibre jumbo rolls from China.

The rest of small tissue converters in Kazakhstan (Almaty Paper Factory, Emin LTD, Deldal -Actobe, Mika-Chimkent, Shugat, Papyrus, Kasen 7, and Kvind) produce substandard quality toilet paper and napkins from waste paper. Low-income consumers dominate the country's population and still ensure the arrival of new entrepreneurs willing to start a tissue business. There are several distributors in Kazakhstan offering complete turnkey installation of mini-plants made in China with complete toilet roll production cycle.

The country's proximity to China creates opportunity for tissue converters to import low-cost jumbo rolls. Kazakh tissue producers can take advantage of the country's membership in the Custom Union with Russia and Belarus to get access to low cost virgin pulp and jumbo rolls.

FOOTFALL UP 40%, 51 COMPANIES EXHIBITING FOR THE FIRST TIME; TW AMERICAS 2014 IS THE LATEST RECORD BREAKING TISSUE WORLD SHOW

It's official - Tissue World Americas 2014 was the most successful Tissue World Americas show ever.

The stats are stacking up and they make impressive reading for the global tissue industry.

The Miami trade show attracted 1,931 participants, a 40% increase compared to the 2012 edition.

A total of 173 companies exhibited and no less than 51 businesses have been converted to the TW banner exhibiting for the first time.

The footfall breakdown was 711 visitors, 709 exhibitor staff and 457 conference delegates, making Miami the most successful show ever.

Participants came from 69 countries, including 1,069 from the USA, 78 from Brazil, 99 from Canada, 71 from China, 166 from Italy and 27 from Turkey.

The statistics reflect a significant pick-up in the American tissue market, which despite being in a mature phase continues along a dynamic expansion path.

A number of new US projects are in the pipeline between 2014-16: three confidential start-ups, Orchids Paper Pryor, Cascades Tissue St. Helen are expected to come on-stream in 2014 bringing an extra 206,000 tpy; in 2015-16, 307,000 tpy new capacity is expected with projects from Orchids Paper, Pryor, First Quality Tissue, Anderson, Procter & Gamble, Box Elder, First Quality Tissue USA.

The market has also seen a rapid growth in independent tissue converters which have gained substantial market share in the AfH sector in particular.

The ongoing battle between brands and private labels has also proved a catalyst for innovation and investment.

Kit Vale, global director of business development at Daymon Worldwide, told TW: "The bar has been raised at this year's Tissue World Americas event.

"The proliferation of experts across so many fields that touch the tissue industry was evident.

"The content of the conference was all encompassing and well organized and the value of the conference and exhibition is evident in all the major manufacturers and many retailers in the industry."

William A Nelson, president, Elettric 80, told TW: "The show was well-attended and we renewed contacts with many valuable customers and prospective customers.

"We appreciate the efforts to expand the focus into areas related to products and supply chain."

TW AMERICAS 2014 IN NUMBERS

118,370 sq ft
Floor space occupied

173
Exhibitors (34% increase compared to 2012)

69
Countries from which the participants attended

1,931
Total participants (40% increase compared to 2012)

54
Conference speakers

457
Conference delegates

CONFERENCE AND LAUNCH OF THE TISSUE RETAILERS AND DISTRIBUTORS INSIGHT FORUM (TRIF)

The Tissue World Americas summit had a record-breaking crowd of over 457 registered attendees sit in the conference in Miami; the highest in TW's 21 year history.

Talks covered the latest key trends in the global tissue industry, from evolving consumer and retail trends; private label versus brands; sustainability; Greenpeace and WWF viewpoints on the tissue industry; energy savings; how large retailers are meeting sustainability challenges, through to the latest developments in NTT, ATMOS, ADT and TAD technology.

Visitors included 40 retail and commercial tissue buyers, many of which were attending the event for the first time because of TRIF.

TRIF was designed to give tissue buyers a better understanding of the capabilities tissue makers have to meet their requirements, both environmental and quality wise, as well as provide a deeper appreciation for the immense technical development efforts that go into tissue making.

See TW magazine's summary of talks in the Retail Special on page 42.

NEXT EDITION: NEW ORLEANS

The next edition of Tissue World Americas will be held in New Orleans from March 14-17 at the New Orleans Ernest N. Morial Convention Center (Hall G).

New Orleans was chosen for numerous reasons, including a state-of-the-art venue, a charming downtown next to the location of the show and reasonably priced hotels.

TISSUE WORLD AMERICAS 2014: A SNAPSHOT OF CONFERENCE TALKS

The variety of analysis and debate at Tissue World Americas 2014 was impressive. Here, TW provides a brief taster of just some of the themes. A TW report.

GUILLAUME BOUVIER, VP OPERATIONAL EFFICIENCY, CASCADES TISSUE GROUP, CANADA

Cascades Antibacterial Paper Towels: The Most Innovative Technology for Hand Hygiene

"It is a well-known fact: the average person does not have proper hand washing habits. As proven by many studies, the safest method to dry hands is paper towels; air dryers are known to increase bacteria on your skin and surrounding areas. That is how Cascades came up with the idea of developing the first antibacterial paper towel to compensate for less than perfect hand hygiene practices. Unique and innovative, Cascades Antibacterial paper towels provide a simple and effective way to further reduce bacterial contamination and transmission. In contact with wet hands, these paper towels release 0.11% of Benzalkonium Chloride on hands killing 99.99% of residual bacteria such as Staphylococcus aureus, Salmonella, Listeria monocytogenes and E.Coli (based on 3rd party laboratory testing), which differentiates them from ordinary paper towels.

"Available in North America, they can fit anywhere and don't require additional steps or change in habits. Contrary to alcohol hand sanitizers, these paper towels provide a lasting antibacterial effect for two hours. Moreover, proper hand washing and drying with Cascades Antibacterial paper towels help reduce Norovirus incidences. Cascades has a patent pending for both the product and its manufacturing process. The product's green signature colour is a trademark of Cascades."

TONY CURTIS, CHIEF EXECUTIVE, SOFIDEL AMERICA, USA

Combined Environmental, Energy and Monetary Benefits with the CHP Power Plant

"The presentation discussed Sofidel's sustainability philosophy as a member of WWF Climate Savers Program and how it translates into real action. As a key example, it described Sofidel America's commitment to its sustainability goals with a major energy project at its new site in Florida, USA. This is a turn-key project partnership with Haskell Design + Build. Described are the reasons behind the technology choice, the project milestones and the anticipated benefits to the environment and the company."

IAN PADLEY, TISSUE APPLICATIONS MANAGER, EUROPE, BTG, SWITZERLAND

A New Approach To Optimise Tissue Machinery Performance

"Unscheduled downtime for production issues that lead to the regrinding or resurfacing of the Yankee dryer costs the tissue industry millions of dollars every year in lost production, product downgrade, slower operating speeds and equipment costs. A good diagnostic platform assists the tissue maker in identifying the root cause of these issues and permits early intervention with remedial actions or less costly repairs before the issue becomes acute and causes damage. BTG will propose a new approach to Yankee dryer management based on two powerful diagnostics; continuous vibration measurement and stop-action precision thermal imaging. These diagnostics are integrated with BTG's extensive experience of the many parameters impacting the crepe blade performance. A systematic approach to the machine audit of potential process initiators for production issues allows the machine manager to focus on specific areas of concern, tracking the impact of remedial action via the advanced diagnostics. These diagnostics themselves still retain the traditional capability to alarm for and troubleshoot potentially damaging conditions."

AL COONS, SENIOR PROJECT ENGINEER, PAPER MACHINES, CONSUMER PRODUCTS DIVISION, CLEARWATER PAPER, USA

Optimising The Life Of The Metalised Yankee Cylinders

"Yankee thermal coatings, or metallisations, have been around since the 1980s. However, new technologies are increasing the share of Yankees which are metallised. One of the most significant shifts is the acceptance of steel Yankee dryers in the marketplace, all of which must be metallised. Even on cast iron, thermal coatings are now thought of as Yankee performance improvement projects versus just asset life extension.

"As accepted as these coatings are, there is little information regarding how to specify a project, how is final quality determined, and how to care for the coating over the years to ensure the best return in investment? The paper covered practical application examples and provide ideas regarding project management and long term surface care."

WILLIAM BONIS, APPLICATION ENGINEER, SKF, USA

Lubrication for Yankee Bearings

"Bearings for Yankee cylinders are oversized from a load point of view. The requested basic calculated rating life, L10h, is above 200,000 hours. This means that 90% of the bearings should operate for more than 23 years and that 50% of the bearings should operate for more than 115 years without any flaking (subsurface fatigue micro cracks reaching the surface and metal particles being liberated). The real average service life of Yankee cylinder bearings is below what could be expected. The reason is that many parameters such as bearing storage, handling, mounting, the lubrication and the lubricant characteristics etc. influence service life. Furthermore, many tissue machines get speeded up with steam pressures increased. Often, they then operate above original design speed. Inadequate bearing lubrication is a principal cause of lower than expected service life."

NEIL DAVIS, GLOBAL TECHNOLOGY MANAGER, SONOCO PRODUCTS COMPANY, USA

The Core Impact of Evolving Tissue and Towel Trends

"To produce premium products that are softer, bulkier and more absorbent, leading tissue and towel producers are replacing conventional machines with TAD or ATMOS technology. But all too often, in their zeal to adopt new machine technology, maximise runtime with bigger rolls, and embrace more efficient automation, they overlook part of their ongoing consumables costs: cores. For tissue and towel producers, crucial aspects of parent core design and use can impact implementation speed, containment of recurring costs, waste reduction and sustainability.

"Successfully incorporating innovative technology and advances in converting depends on considering core design and performance from the early stages of process engineering. Core-related decisions should include how cores will be shipped and received, how chucks and inserts will be incorporated into the design of a converting unwind, how white waste is to be removed, and if used cores can be re-cut and re-graded.

"This paper and its presentation greatly increased the audience's awareness of core issues that will help them avoid waste, save money and take the hiccups and headaches out of new equipment start-ups and rebuilds for years to come."

JUDSON FIDLER, TECHNICAL CUSTOMER SERVICE MANAGER, SUZANO PULP AND PAPER AMERICA, INC, USA

Eucalyptus Fibre for Long Fibre Replacement and Maximising Quality in Tissue

Co-author: Manoel Silvestre Faez, R&D Innovation Technical Consultant,

Suzano Paper & Cellulose SA, Brazil

"Eucalyptus fibre is utilised in the manufacturing of tissue to provide superior paper properties as required by the end use segment. The Eucalyptus fibre is generally not added in the tissue process for contributing strength due to its shorter fibre length. Long fibre (softwood) is known to deliver an element of strength to the tissue paper. From a technical perspective, elevating the furnish level of Eucalyptus to provide strength may seem counter-intuitive.

"Suzano independent research on a tissue pilot plant presented in this paper shows how Eucalyptus can

THE TISSUE WORLD PHOTOGRAPHY AWARDS WINNER ANNOUNCED

Farina Rivera from Alas Doradas S.A. de C. V, El Salvador, has won the Tissue World Photography Awards 2014.

There were a total of 34 nominations submitted by exhibitors, visitors and delegates and the winner was announced at the show.

Tissue World Miami 2014 marked the official launch of The Tissue World Photography Awards. They aim to raise awareness of the tissue industry and share the pride of being part of the world of tissue and inspire tissue professionals by showcasing outstanding photography.

be used as a strength element and replace long fibre in tissue while maximising physical properties such as bulk, geometrical mean tensile (GMT), and hand-feel softness while maintaining run-ability. Bath tissue with 100% Eucalyptus was the objective, working with process variables like refining strategy and headbox layering.

"Aside from refining and process changes, upstream development work ongoing to enhance the strength of Eucalyptus from a pulp product perspective. The inclusion of additives in the paper process can also be an alternative to develop strength and replace long fibre."

FATOS ANIL, TISSUE PAPER R&D MANAGER, HAYAT CHEMICALS INC, TURKEY

A Study on Increasing the Absorption Capacity of Tissue Paper: The Effect of Softwood/Hardwood Balance

"Tissue paper products require a balance of several effects including tensile strength, absorbency and softness. Of these three parameters, the strength of the sheet and its corresponding softness are interrelated. It is a well known fact that improving one of these properties often harms another such as mechanical treatments that enhance softness may also decrease tensile strength. For tissue products water absorbency is considered the most important property. In order to improve the water absorbency, the optimisation between pulp furnish and chemical additives is generally required. Softwood and hardwood fibres can be blended into a single paper to achieve a desired combination of strength, softness and absorbency. Softwood fibres that produce long, thick and strong fibres are obtained from coniferous trees. These qualities give strength to tissue, whereas, hardwood fibres are from deciduous trees and give smoothness and softness to tissue paper products since the fibres are shorter and finer. Using various fibre combinations helps to optimise the required characteristics of the tissue paper."

MATT BRYER, PRODUCT MANAGER, PRESS TISSUE AMERICAS, ALBANY INTERNATIONAL, USA

Methods To Improve Press Fabric Performance

"Press fabric performance is a key factor in tissue machine and Yankee operations. Fabric life often dictates our down day cycles and is a key influence on the stability of the moisture profile and the Yankee coating. At Tissue World Americas 2014, Albany International discussed key on-machine and off-machine analytical techniques that are designed to extend fabric life and optimise fabric design to help keep machines running in the sweet spot."

A QUICK REVIEW

On Machine Monitoring

- Utilising a water perm unit and developing a history can help gauge the openness of a press fabric on the run to help reduce break-in time and improve drying
- Combine this with automating the HPS pressure with Suction Pressure Roll vacuum, and the fabric will stay in its "sweet spot" longer with less variation

Off Machine Analysis

- If a fabric has been acting "filled" but the dry fillers and lab report don't suggest an issue, consider a wet filling analysis
- Z-directional photos can help pinpoint where in the felt's structure filling is occurring to make smarter design and conditioning decisions

TISSUE WORLD AMERICAS SPONSORSHIP: POST-SHOW WRAP UP

SOFIDEL HIGHLIGHTS LATEST SUSTAINABLE DEVELOPMENTS

Sofidel, the world's second largest manufacturer of tissue paper in Europe, has showcased its latest sustainable developments and innovations at Tissue World Miami.

The tissue giant, which last year entered the US market with the acquisition of Cellynne, said sustainability is "a strategic factor for growth and innovation".

It said: "Some of the factors that have helped us become one of the leading companies in the world are our exclusive commitment to the tissue sector, our plants being close to key markets, our commitment to quality and our client's satisfaction as well as our sustainability efforts."

In 2008, Sofidel was the first worldwide tissue company to join WWF's international Climate Savers programme which encourages companies to reduce their greenhouse gasses voluntarily through the adoption of innovative strategies and technologies and to act as leaders in reducing CO2 emissions. Cellynne has now been renamed Sofidel America and is a fully integrated paper manufacturer serving AfH and consumer lines of business.

TOSCOTEC PRESENTS BETTER DRYING PERFORMANCE DEVELOPMENTS

Toscotec has featured its TT Drying Optimisation for Energy Saving (TT DOES). The company said in times of rising energy costs and pressure on margins, the benefits of improved drying can make a tangible difference to a mill's fortunes.

The development of TT DOES has meant that Toscotec has investigated strategies for critical areas of the tissue machine that can contribute to greater efficiency and higher output if required.

It said that most tissue producers have the option either to increase output for the same or less specific energy input, or to maintain the same level of output but sensibly cut energy consumption.

TT DOES features Toscotec's comprehensive approach to optimise the Drying Section.

Available both for rebuilds and for new production lines, it combines the latest developments in technology of the TT Pressing System (including TT XPress, the new Toscotec Extended Nip Press solution), the Second Generation of TT SYD and the low carbon footprint Milltech Yankee Hood.

KBR PRESENTS GLOBAL EPC CONTRACTOR CAPABILITIES

KBR has highlighted its global EPC contractor capabilities at Tissue World Americas 2014.

The company showcased its technical knowledge and global capabilities which it has gained from more than 30 years as a leader in pulp and paper engineering, maintenance and construction.

Its team works to provide efficient and innovative solutions in delivering exceptional quality in international and American domestic pulp and paper markets.

Project experience includes working with several of North America's largest paper producers and one of the largest in the Middle East, to provide engineering, design and procurement for their paper machine upgrades and successful construction of their new facilities.

The company's in-depth resources can assist with any part of pulp and paper facility operation, from efficiency studies to environmental permitting to commissioning.

Its experience includes industrial design and construction for pulp mills, paper mills, tissue mills, paper and tissue converting, machine upgrades, recycled fibre and recovery/power boilers new or rebuild/repair.

CONVERMAT FEATURES GLOBAL JUMBO TISSUE ROLL SERVICES

Convermat has used Tissue World Miami 2014 to showcase its full range of jumbo rolls of tissue and specialty wadding services.

The company specialises in a comprehensive offering of jumbo rolls of tissue and specialty wadding including toilet and facial tissue, napkin, toweling, medical grades, carrier tissue, TAD, DRC, MG, MF, wipes, as well as air laid, and more.

Its product offerings consist of 100% virgin pulp, 100% recycled (post-consumer content as needed) and mixed fibres tailored to meet each customer's specifications.

Convermat has a major share of tissue sales in the United States as well as a number of growing and emerging markets around the world.

It has offices across North America and partners located throughout Asia, Europe, the Middle East, Africa, the Caribbean and South America.

The company established its own testing lab facilities and quality assurance department and has recently appointed Felix Norman Macainan III to head it up.

He joins Convermat having been a quality assurance manager at Kimberly Clark Philippines for 18 years.

His responsibilities at K-C included materials and quality systems supervisor, process engineer, and quality team leader for personal care operations.

He will be responsible for working closely with the company's suppliers and customers to build efficiencies in their production processes as well as assisting in the development of new and proprietary grades.

Frank Shahery, Convermat's director of marketing, said: "We are aiming to increase our worldwide supplier network and customer base and the new quality assurance department will further allow our customers to stay focused on their primary business."

Convermat was founded in 1976 with the focus on parent rolls of tissue.

The company is now active in more than 80 countries around the world with major market shares in the US, Canada, Mexico and a number of growing and emerging international markets.

BUCKMAN HIGHLIGHTS LATEST INNOVATIONS AND PATENTED CHEMISTRIES

Buckman has featured its innovative, patented chemistries and sustainable practices at Tissue World Miami.

As part of the conference, John Stitt presented a paper titled "Seeing Softness."

The company was also a sponsor of the networking reception.

Buckman offers tissue industry customers worldwide an unmatched combination of new technology, technical expertise, and exceptional service.

In a statement, it said: "Our experienced associates help you innovate and capitalise on new opportunities.

"Whether you produce premium bath or towel, AfH or consumer tissue products, Buckman can help you improve both the quality of your tissue and the efficiency of your operation.

"We provide the most robust line of products available to meet a mill's chemistry needs.

"And we're helping our clients improve their environmental profile by reducing energy use and employing green chemistries."

FABIO PERINI SHOWCASES LATEST INNOVATIONS

Fabio Perini has showcased its latest innovations and advanced technology at Tissue World Americas 2014.

The company has presented its latest converting and tissue packaging product developments which include: Glue-Free technology, the SOLID+ product and the new service evolution: P.A.N (Perini Aftermarket Network).

Fabio Perini is part of the Körber Group.

TISSUE WORLD LAUNCHES TWO NEW EVENTS TO BOOST NEW MARKET POTENTIAL

Istanbul and São Paulo shows to serve key emerging regions

The worldwide search for potential lucrative new markets in emerging regions was a dominant central theme of the recent and successful Tissue World Americas 2014 trade show.

And where the industry's leading companies go, so too goes Tissue World.

Based on the feedback from a vast array of industry players, on systematic market research and on the analysis of prospective growth of the tissue business, Tissue World is to launch two new strategic events in order to augment the reach of its global portfolio.

They are Tissue World Istanbul to be held on 25-26 September in 2014, and Tissue World São Paulo on 20-22 May in 2015.

TW ISTANBUL 2014

TW Istanbul 2014 will be a summit to discuss local and international topics during a two days conference in a pivotal city for a vast region spreading from east Europe and the Middle East to Russia and the CIS countries.

An area that is intrinsically multi-faceted and diverse but united by a strong growth in the respective tissue markets.

In the past eight years, the capacity in Turkey has more than doubled and the trend appears to be continuing.

Turkey's key tissue players are consistently present at Tissue World trade shows around the world and the past few years have seen them expand aggressively within Turkey and neighbouring countries.

For example Hayat Kimya, which TW magazine visited in 2012 for that issue's Country Report, has broken world speed records (a Metso-supplied machine that ran at 2,210m/ min continuously for a 24-hour period), and has since been busy with start up projects in Iran, Russia and Turkey.

Turkey is in a key geographical location that is seeing substantial growth.

TISSUE WORLD SÃO PAULO 2015

Tissue World São Paulo 2015 will focus on Brazil and South America, a fast growing market which hasn't previously had a dedicated tissue show.

Brazil is an immense and unique country with a set of strict rules and regulations that operators must abide by while other neighbouring countries equally show great potential, in particular Colombia, Peru and Chile.

Hot related topics will be discussed extensively during the conference and on the trade show floor with local and international exhibitors.

Comparing the relative shares of population versus tissue consumption in Latin America and North America gives an idea of just how much potential the area has: while North America has a population share of 37% it has a mighty 70% of the whole area's tissue consumption.

Latin America on the other hand has a 63% population share and just 30% of the tissue consumption.

All of the Latin America tissue market has shown strong expansion in the past few years and has an average growth trend of 4.7% per annum, with Brazil undoubtedly continuing to be the leading force.

A changing geographical landscape has presented further opportunities: an increasing middle class with rising disposable income levels alongside an increasingly ageing population ... all add up to a market that is continuously and boldly evolving.

This has attracted global companies to invest heavily in new capacity: Kimberly-Clark, SEPAC, CVG, Dama-Pel, Nobrecel, VIPASA, CMPC Melhoramentos, VIPASA, OL Papéis.

All this investment shows that manufacturers are clearly expecting continued growth in South America.

In the next few years, all the emerging projects in these parts of the world will drastically change the outlook of the tissue industry.

For TW, Istanbul and São Paulo will ultimately create additional solid bridges for exhibitors and visitors from the regions and beyond to interconnect in fast growing vital markets for the industry.

An exciting challenge that Tissue World is determined to meet.

QUICK LOOK: TURKEY AND BRAZIL

By Bill Burns, senior consultant, Fisher International

TURKEY T&T PRODUCTION

Turkey is the sixth largest Towel and Tissue (T&T) producer in the European Region. At 586,000 metric tonnes, Turkey produces significantly less than market leaders Italy and Germany (1.76 and 1.45 million metric tonnes respectively, Figure 1). This market position is a result of a sustained period of growth beginning back in 2005 (Figure 2). In the past eight years, the capacity in Turkey has more than doubled and the trend appears to be continuing.

There are 17 T&T machines located across 11 mills operating in Turkey. The capacity of these machines ranges from a low of 3M metric tonnes to a high of 70M metric tonnes. Speeds of these machines vary from the slowest at 450 MPM to the fastest at 2,200 MPM. Machine trims vary from the narrowest of 220 cm to the widest of 565 cm (Figure 3). Average technical age of these machines is 15 years, but this is somewhat misrepresentative of the asset fleet because eleven of the 17 machines are newer than the average, as the growth trend suggests.

The fibre distribution for Turkey's T&T mills is heavily biased toward virgin pulp. Recycled fibre is present in five mills, but is the predominant fibre in only three of these. Where present, the recycled fibre source is a combination of MP, SOP and OCC. Virgin fibre is a mix if Northern and Southern hardwoods and softwoods with some eucyluptus.

Figure 1

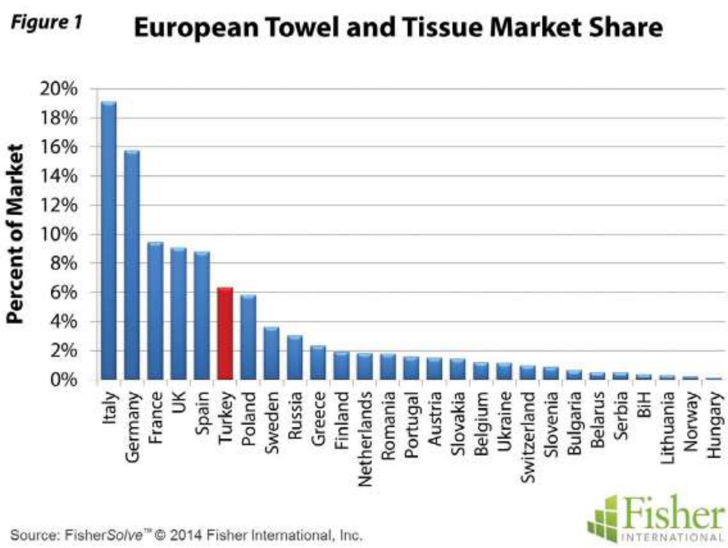


Figure 2

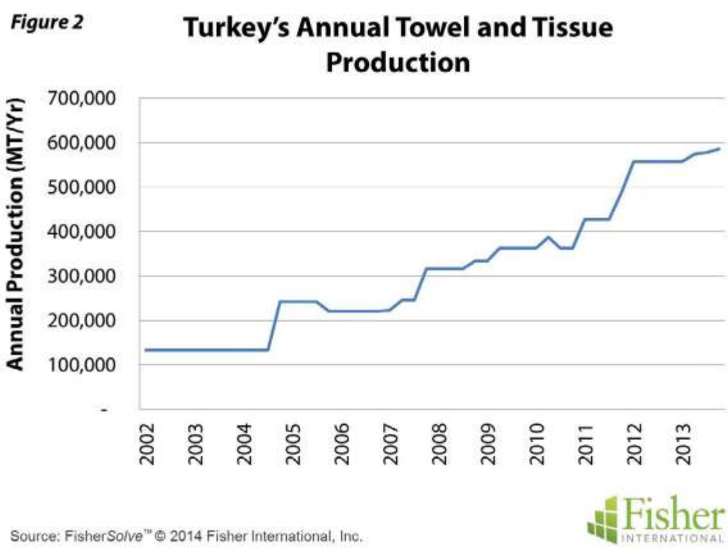
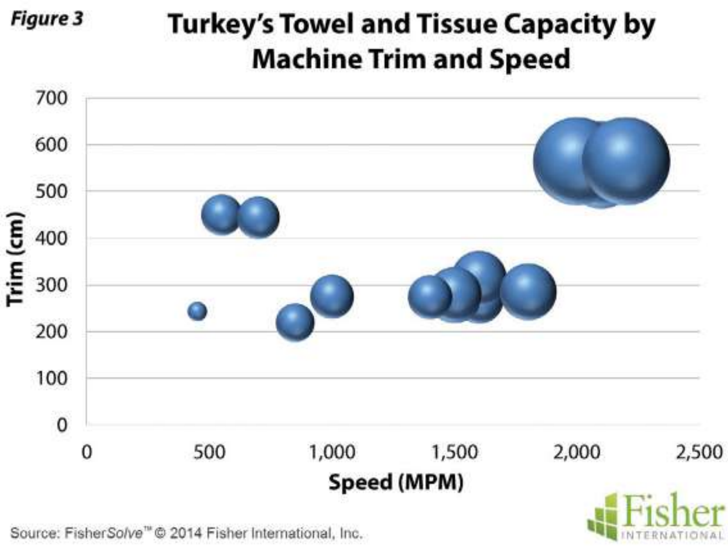


Figure 3



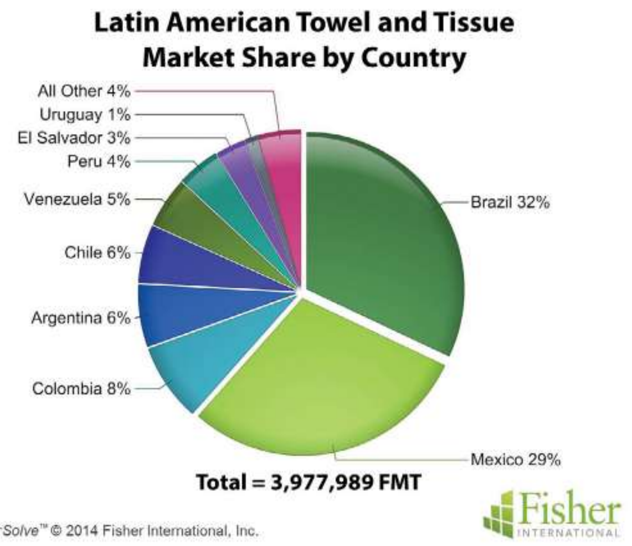
BRAZILIAN T&T PRODUCTION

Brazil is the largest T&T producing country in Latin America, making up 32% (1.274 million metric tonnes) of the 3.978 million metric tonne Latin American market. Together with Mexico's 29% share, over half of Latin American T&T production comes from these two countries (Figure 1). Brazil experienced a significant spike in growth starting late 2007 to early 2008, and continued to grow even with global recessionary headwinds. But this growth trend appears to be levelling out over the past year (Figure 2).

There are 38 operating T&T mills in Brazil. Ownership is almost exclusively local, with only four mills being owned by companies outside of Brazil (two by CMPC, Chile and two by KC, United States). The remaining 34 mills are owned by 27 companies with headquarters in Brazil. Santher and Mili are the two largest companies operating four and two mills respectively. These two companies account for 27% of the market (Figure 3). The two foreign-owned companies hold another 20% of the market resulting in four companies commanding nearly 50% of the market.

The fibre base for Brazilian T&T comprises an almost equal split of recycled and chemical pulp, which stands true overall and mill to mill. There are 13 mills that use recycled pulp exclusively or almost exclusively (>90%) and 14 mills that use only chemical pulp. The remaining mills use a mix of recycled and chemical pulp, with one mill integrating a significant amount of mechanical pulp. The predominant chemical pulp is Eucalyptus and the predominant recycled material is a broad spectrum from pulp substitutes to OCC.

Figure 1



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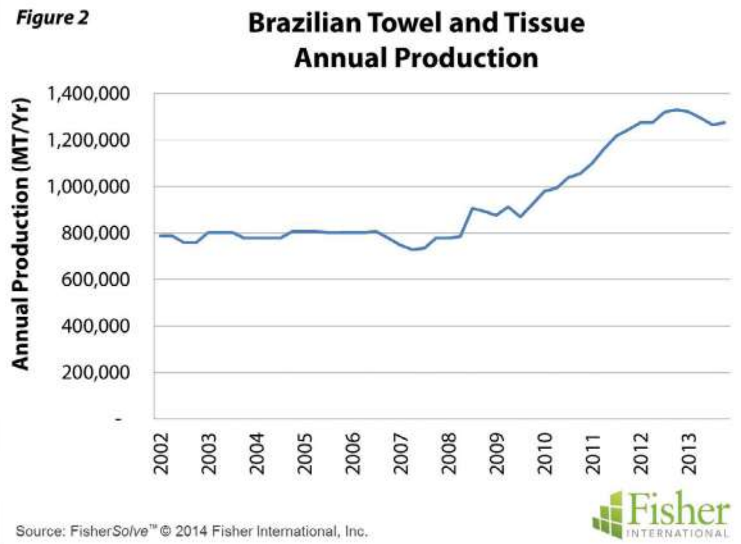

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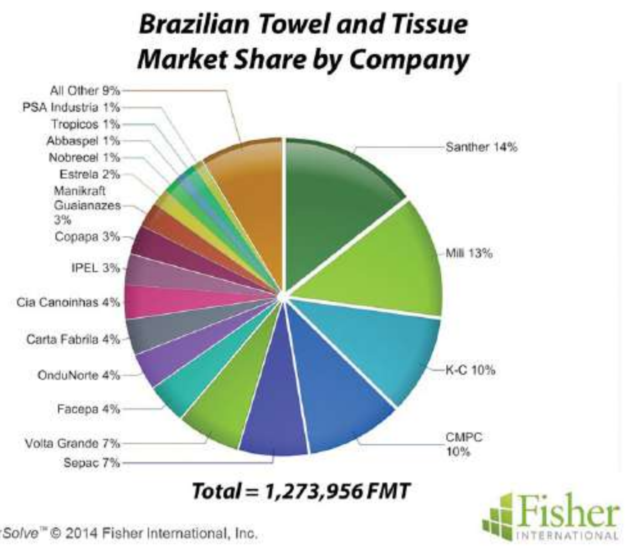

Chile

CMPC TO INSTALL NEW 50,000TPY TISSUE PM IN MEXICO IN 3Q15

Chilean Empresas CMPC has announced a $160 million investment to expand its Altamira tissue plant capacity in Mexico by 50%.

The company plans to install a new 50,000tpy tissue paper machine (PM) at that site with startup scheduled for the third quarter of 2015.

CMPC's Altamira mill currently produces around 100,000tpy of tissue paper on three PMs.

According to CMPC, the investment project in Mexico also includes an energy cogeneration plant and converting capacity.

The Altamira plant should receive around $50 million this year. "The biggest part of the investment will be spent at the end of the project," said CMPC's CFO, Luis Llanos.

In October, CMPC inaugurated a new 40,000m2 tissue distribution centre at Caieiras city, in São Paulo state, southeast Brazil.

The company also runs a specialised and modern tissue paper mill in the same city with a capacity of 100,000tpy of toilet paper, napkins and paper towels.

The investment in the Caieiras DC totaled $25 million.

The company has an annual capacity of around 590,000 tonnes of tissue paper produced at seven plants in Latin America.

News from RISI (www.risiinfo.com)

USA

FIRST QUALITY TISSUE EXPANDS TAD CAPACITY

First Quality Tissue has announced plans to add two TAD paper machines with an estimated annual capacity of 140,000 tonnes.

The start-up of these machines is expected to be Q3 2015 and Q3 2016 respectively.

The installation of the company's already purchased ATMOS tissue machine (with expected capacity of 70,000tpy) is well underway with an expected start-up of Q1 2016 at the existing Anderson site in southern California.

In a statement the company said: "First Quality leadership recognises and is totally aware of the requirements and expectations of our customers and our needs in the ultra-premium category.

"Consistent with our business philosophy we are focused on our business dynamics, our customers and ultimately our consumers who use and value our products.

"Additional state of the art capacity ensures, in a more comfortable and confident fashion, the growth and continuous needs of our customers".

The business provides ultra-premium tissue and towel products to its customers in the United States, Canada and select international locations.

It has already installed four state of the art TAD machines – two in Lock Haven, Pennsylvania and two in Anderson.

It now has seven tissue machines with an estimated capacity of 500,000 tonnes.

First Quality Tissue is a member company of the privately held First Quality group of companies, headquartered in Great Neck, New York.

CLEARWATER PAPER TO CLOSE LONG ISLAND TISSUE CONVERTING FACILITY

Clearwater Paper Corporation is to permanently and immediately close its Long Island, N.Y., tissue converting and distribution facility, affecting 155 staff.

Tom Colgrove, president of the company's consumer products division, said: "After thoughtful consideration, we have determined that permanently closing our Long Island plant and consolidating manufacturing at the company's other lower-cost tissue facilities is a necessary step for Clearwater Paper. "This has been a tough decision, one where we carefully reviewed all alternatives to closing the plant."

The company will work with the New York Department of Labor's Rapid Response Unit to assist employees in receiving training or educational benefits or other benefits that enable them to find new employment as quickly as possible.

Displaced employees will have the opportunity to apply for open positions at other Clearwater Paper facilities. In addition, employees will be offered separation pay.

Clearwater Paper manufactures quality consumer tissue, AfH tissue, parent roll tissue, machine glazed tissue, bleached paperboard and pulp at 14 manufacturing locations in the U.S. and Canada.

The company is a premier supplier of private label tissue to major retailers and wholesale distributors.

Turkey

IPEK KAGIT TISSUE PAPER BOOSTS CAPACITY

Turkey's Ipek Kagit Tissue Paper has invested in a new Advantage tissue production line.

The Valmet Advantage DCT 200TS line will be installed at the company's Manisa plant in Turkey and start-up is scheduled for the second half of 2015.

The value of the order will not be disclosed.

Sertaç Nisli, general manager, Ipek Kagit Tissue Paper, said: "The new Advantage DCT line will support our vision to become a regional powerhouse, by extending our existing leadership in Kazakhstan and the Caucasus to over 20 markets in Europe, Middle East, Africa and Central Asia.

"Ipek Kagit is an experienced tissue producer with a long history in the tissue business."

"The new Advantage DCT line will support our vision to become a regional powerhouse, by extending our existing leadership in Kazakhstan and the Caucasus to over 20 markets in Europe, Middle East, Africa and Central Asia."

The tissue machine will have a width of 5.6m and a design speed of 2,200m/min.

It will provide high-quality facial, napkin, toilet and towel grades for consumer and commercial use.

Delivery will comprise of a complete tissue production line featuring Valmet stock preparation systems and an Advantage DCT 200TS tissue machine.

The machine is equipped with OptiFlo headbox, Advantage ViscoNip press and Yankee cylinder with Advantage AirCap hood.

Complete engineering, installation supervision, training, start-up and commissioning are also included in the delivery.

Ipek Kagit is part of Eczacibasi Group, which operates in the businesses of building materials, healthcare and consumer products as well as finance, information technology, welding technology, mining and property development and facility management.

South America

SCA EYES SOUTH AMERICA FOR PERSONAL CARE, TISSUE PAPER INVESTMENTS

SCA is prepared to flex its financial muscles and invest in South America, considering the region's potential for the development of the company's portfolio if the right opportunities arise, according to president and chief executive Jan Johansson.

He said: "South America and especially Brazil are growing markets with favourable demographics for SCA's portfolio.

"Brazil is an interesting and growing market with a large female population and 80% of SCA's consumers are women.

SCA's president and chief executive Jan Johansson

"Today we are only present in Brazil with SCA's incontinence care business, under the global brand Tena, but we would like to add some of our other categories as well," he told RISI.

As stated by the chief executive, the particularities of South America would also make it an interesting region for the development of the company's personal care and tissue businesses.

"It is often positive if we as a supplier can offer retailers several consumer categories," he added.

News from RISI (www.risiinfo.com)

South America

BRAZIL'S IPEL SCHEDULES NEW 26,400TPY TISSUE PM STARTUP IN APRIL

Brazilian tissue producer Ipel – Indaial Papel Embalagens – confirmed to RISI that it will start up its new paper machine (PM4) in April this year, after several delays since 2008, when the project was first announced.

The new PM has capacity to produce 26,400tpy of tissue paper, more than doubling the company's current output of around 24,000.

According to Ipel's marketing manager, Luciana Dobuchak, the delays occurred as the investment has been carried out with the company's own resources only. "We wanted to avoid a debt increase or any financial commitment," she explained.

Ipel's sole plant in Brazil is located in Indaial city, Santa Catarina state. The new equipment was supplied by Hergen and has one of the largest hoods produced in Brazil.

PM will have a 4,880mm Yankee roll and will run at a speed of 2,000m/min.

News from RISI (www.risiinfo.com)

CMPC MELHORAMENTOS STARTS UP NEW TISSUE DC IN CAIEIRAS, BRAZIL

CMPC Melhoramentos has inaugurated a new tissue distribution centre (DC) at Caieiras city, in São Paulo state, southeast Brazil.

The company also runs a specialised and modern tissue paper mill in the same city with a capacity of 100,000tpy of toilet paper, napkins and paper towels.

The new DC, which started operations in October 2013, occupies an area of 40,000m2 and includes storage rooms, offices and a dining area for the logistics team which operates the centre.

In addition, it has a spacious yard for trucks and other transportation services.

The investment in the Caieiras DC totaled $25 million.

According to Pedro Urrechaga, CMPC Melhoramentos' general manager: "The company's target is to have a DC with capacity and technology to support CMPC's growth plans in a region which concentrates around 39% of the Brazilian population and 55% of the country's GDP."

The executive added that with this new DC CMPC will be able to improve its services to customers as it is logistically more efficient.

The new Caieiras DC is close to the region's main highways which link it to the largest cities in south east Brazil, such as São Paulo, Campinas, Rio de Janeiro and Belo Horizonte, reducing logistics costs and improving efficiency.

CMPC Melhoramentos has other distribution centres in Brazil – Guaíba, in Rio Grande do Sul (southern Brazil), Recife, in Pernambuco state (north east region) and Mogi das Cruzes, also in São Paulo state.

Thailand

RVP BOOSTS PRODUCTION WITH START-UP

First of many: The 25,000tpy start-up at the RVP mill

RiverPRO Pulp & Paper Company Limited (RVP) has boosted its production after it successfully started up a 25,000tpy tissue machine at its mill in Saraburi province, Thailand.

The PM was bought from a closed tissue mill in Sweden and was originally manufactured by Velmet.

It has a width of 3.1m and operating speed of 1,200m/min. The machine started producing paper again within a year. RVP is one of major tissue manufacturers in Thailand.

The company owns two mills and operates four machines, including one 2.7m Andritz unit with the total capacity of 54,500tpy. Its production lines cover toilet paper, facial tissue, paper towels and napkins.

Sweden

SÖDRA BOOSTS VÄRÖ'S PULP CAPACITY

Södra is to invest SEK 4 billion to increase the pulp production capacity of its Värö mill from 425,000tpy to 700,000tpy.

The investment will make the mill one of the biggest in the world in terms of softwood sulphate pulp production.

Lars Idermark, chief executive and group president at Södra, said: "This expansion is a vital part of our strategy and a must if we are to be able to develop our business.

"The paper pulp market is growing globally and now it will be possible for us to continue to grow together with our customers."

He added the investment will reinforce the company's market position.

"We already supply high-quality pulp to a number of different customer segments and we can now develop and underpin this."

The investment will also make the mill more energy efficient.

Varo mill: SEK 4 billion boost to pulp production

Södra Cell Värö is already independent of fossil fuels during normal operation. If the environmental permit process goes according to plan, the expanded mill will be ready for commissioning in the third quarter of 2016.

The project will create the equivalent of 400 full-time jobs over a period of ten years.

In the long term, the investment will also create 20 or so new job opportunities at the mill and 220 job opportunities within surrounding businesses.

Saudi Arabia

SPMC TAPS RECARD FOR TISSUE MACHINE REBUILD IN SAUDI ARABIA

Saudi Paper Manufacturing Company (SPMC) plans to rebuild its PM 1.

The firm tapped Recard for the conversion of the twin-wire machine into a crescent former line with a capacity of 100tpd of tissue.

According to Recard, the order comprises the new crescent former, a new Yankee steel dryer and hood, new drives, a new electrical plant including a distributed control system and a slitting rewinder upgrade.

The rebuild is scheduled to start in the second half of the year, and SPMC's PM 1 should be able to restart production in December. The value of the order was not disclosed.

SPMC started its tissue operations in the Kingdom of Saudi Arabia with the installation of its first machine with a capacity of 16,000tpy in 1992.

Since then, the firm has become one of the major manufacturers of tissue paper in the region with a current production capacity of around 125,000tpy.

Apart from SPMC, the Saudi Paper group includes Saudi Recycling Company and Saudi Paper Converting Company.

Moreover, it runs wholly-owned paper collection and recycling operations in the United Arab Emirates, Morocco, Bahrain, Jordan and Algeria.

News from RISI (www.risiinfo.com)

China

CHINA'S HEBEI YIHOUCHENG DELAYS 25,000TPY TISSUE PM

China's Hebei Yihoucheng Commodity looks set to start up a new 25,000tpy tissue PM next quarter at a greenfield mill in Baoding city, in the northern province of Hebei.

The PM was previously scheduled to come online by the end of 2013. A source close to the project said that construction work was delayed due to the coldness of the winter.

The unit, supplied by Andritz, will have a width of 2.85m and a design speed of 1,650m/min, and be equipped with a steel Yankee drying cylinder with a diameter of 3.65m.

It will be Hebei Yihoucheng's first tissue PM. The company has long been a regionally significant producer of nonwoven products such as diapers and napkins.

News from RISI (www.risiinfo.com)

Spain

ECOFIBRAS REBUILDS TM5 INTO CRESCENT FORMER

Spanish tissue manufacturer Ecofibras has rebuilt its TM5 into a Crescent Former.

Toscotec have been awarded the contract to deliver the rebuild.

Ecofibras Aranguren is part of the CEL group which was the former KC Aranguren plant and became an independent company two years ago.

This investment is part of the development plan designed to increase production capacity and improve quality to supply current parent reels market, both in virgin and in deinked pulp reels.

The present TM5 is equipped with a suction breast former and sloped wire configuration, double press section and cast iron Yankee of 4,500mm diameter.

The max actual operating speed is 1,370m/min with a drying capacity of 101tpd. In order to produce grades with lower basis weight than today (the required basis weight range is 10 ÷ 36 gsm on the wire), Toscotec will supply to Ecofibras a stock preparation upgrading together with the entire engineering, a fully hydraulic step diffuser headbox TT HEADBOX SL-T and the complete replacement of the wet-end section into the Crescent Former configuration.

Ecofibras rebuild to improve output and quality for parent reel market

New Zealand

SCA'S KAWERAU OPENS ITS DOORS AFTER EXPANSION

SCA has opened its Kawerau tissue facility in New Zealand following a $60m expansion plan.

The site was opened by prime minister John Key and the expansion includes a new 14,500 square-metre tissue conversion hall, a 50 metre-long state-of-the-art 'wide-winding' machine and robotised packing and dispatch.

The site manufactures Tork® tissue products including toilet paper and hand towel for the Australian and New Zealand market.

The investments increase production of tissue products at the site by the equivalent of 22 forty foot containers each week.

It follows the company's investment in converting the site's electricity-driven turbines to geothermal steam in 2009, contributing to a 45% reduction in annual C02 emissions.

In addition to the expansion of the Kawerau facility, SCA has also invested $65million in upgrades to the production facilities at its Box Hill site in Australia. Announced in December last year, this upgrade includes the production of a new range of Tork napkins, which will launch to market in the second half of 2014, as well as the popular Xpressnap® dispenser range, which was previously imported from SCA's global operations.

Poland

ICT GROUP INVESTS IN ICT POLAND MILL

ICT Group is to invest in a new 70,000tpy tissue machine at its ICT Poland mill located in the town of Kostrzyn. The investment would also comprise of additional converting equipment and necessary logistic and civil infrastructure.

ICT Poland has 400 employees and produces 140,000tpy of finished products.

The new machine would eventually be an addition to ICT Poland's first two tissue machines started in 2001 and 2008. The future site would therefore need additional personnel to operate the three full width tissue machines and the fully integrated converting hall downstream.

ICT Group is presently evaluating several investment options in different countries.

However, should the decision for the investment finally fall on Poland, start-up date for the new machine is estimated to be in 3Q of 2015.

ICT Group is headquartered in Lucca, Italy, and has production companies in Italy, Spain, Poland and France.

Global

SÖDRA HIKES UP PRICES

Pulp manufacturer Södra has increased the price of its softwood pulp in Europe to USD 940 per tonne.

The company said the move was due to "strong global markets and solid demand".

The company increased the market price for NBSK in Europe to USD 940 as of 1 March 2014.

HANKE TISSUE STARTS TO RAMP UP NEW TISSUE MACHINE IN POLAND

Hanke Tissue, a subsidiary of the German MBB Industries group, is about to double its tissue capacity. The firm is set to launch production on a new tissue line at its mill in Kostrzyn, western Poland, later this month.

Hanke Tissue awarded the order for the new PM to Italy's Recard in 2012. The new line, which was originally scheduled to start up in December last year, will boost the firm's output from around 14,000 tonnes/yr of tissue paper to some 32,000 tonnes/yr.

RISI learned that the new machine is currently in the first stage of its ramp-up phase. According to Hanke Tissue, all devices, and the facility's distributed control system in particular, are undergoing tests to check if they were assembled correctly. The start of production is scheduled for the end of March.

The history of Hanke Tissue dates back to the 1930s, when the German firm Phrix built a pulp factory in Kostrzyn. In 1990, the factory was transformed into a company owned by the State Treasury, and then sold to the Swedish paper corporation Trebruk.

As the new owner was involved in the production of copy paper, not tissue paper and related products, it spun off the tissue mill in the new firm Hanke Tissue and later sold half of its share to Hanke Papier in Dortmund, Germany. In 1998, Hanke Papier bought the remaining 50% of Hanke Tissue and became the mill's sole owner.

However, ownership changed again in 2006 when, due to Hanke Papier's financial problems, MBB industries took over an 80% stake in Hanke Tissue. Since 2011, MBB Industries has been Hanke Tissue's sole shareholder.

News from RISI (www.risiinfo.com)

Hungary

NEW ROLL LINE AT FOREST PAPIR

Hungary's Forest Papir has boosted its product offering after it started up a new converting line supplied by Futura.

Dedicated to roll products, the installation comprises the usual key converting elements and includes a JOI embosser.

The line was officially inaugurated at a ceremony at the company's Lábatlan headquarters in December.

The investment will allow Forest Papir to expand its range of roll products, enhance quality and increase production flexibility.

Founded in 1994, today the company converts in-house most of the products it sells, including branded and private label tissue for both domestic and AfH use.

Forest Papir supplies Hungary, neighbouring markets and further afield with toilet tissue, kitchen towel, facial tissue and paper napkins. It delivers to 19 countries in total.

The business introduced the 24-roll toilet paper pack to the Hungarian market as well as the first perfumed and coloured tissue in 100-sheet packs.

UK

KENNEDY HYGIENE PRODUCTS TARGETS PAPER CONVERTERS WITH PRODUCT LAUNCH

UK-based global washroom dispenser manufacturer Kennedy Hygiene Products has launched the POD – auto-cut paper roll dispenser.

The launch is targeted at paper converters and it incorporates the Reserve System, a feature aiming to reduce paper wastage at facility level.

The launch is in response to customer demands for more environmentally friendly solutions.

The POD with Reserve System has an integrated patented stub roll loading mechanism, where a new roll can be loaded into the dispenser before the previous roll has been fully used.

When the stub roll is fully depleted the mechanism transfers to the new full size roll.

The company said that as well as total use of the stub roll which eliminates paper wastage, "end-user satisfaction is enhanced by continuation of supply".

The POD is manufactured at Kennedy`s premises in East Sussex, southern England. It has been designed to accommodate a large variety of paper roll types available on the market with diverse roll lengths, diameters, widths, and paper thickness. With its standard setting, the unit has been optimised for rolls with a core diameter of 38mm, a roll width of 250mm and roll diameters up to 200mm, but can be adapted to specific needs including requirements for proprietary systems.

Kennedy Hygiene Products manufactures and supplies integrated washroom hygiene systems.

It was established in 1961 and has since grown from its roots in hand drying to its current fully integrated range of washroom hygiene systems which encompasses hand drying, hand washing, air freshening, sanitizing, feminine hygiene, nappy and medical waste and toilet tissue families plus their associated consumables.

The company also produces bespoke dispenser designs and colours and works with clients to fulfil their specific requirements. Kennedy operates under ISO 9001 and ISO 14001 quality and environmental accreditations.

POPPIES EUROPE INVESTS IN MAFLEX LINE

UK-based manufacturer of catering disposable products Poppies Europe has invested in a complete production line from Maflex following its acquisition of McNulty Wray.

The company said it made the investment on the back of customer demand to be a "one stop shop".

Armindo Marques, manager at Poppies, told TW: "We have naturally decided to expand our prominently catering range towards hygiene products by investing in a complete production line from Maflex.

"In the year planning to this project we have developed a new brand dedicated to hygiene, Poppysoft."

He added that Maflex is a dynamic, fast growing company that has "already established a strong reputation for reliability and efficiency".

He said: "The most interesting characteristic of the Maflex line is the flexibility, which perfectly suits our business.

"We consider this feature an opportunity to satisfy all the range of customer requests."

Poppies Europe has 108 staff and it acquired McNulty Wray at the end of 2012. The move significantly boosted its position in the napkins sector.

Poppies Europe was established in 1996 and produces catering disposable products such as napkins, tablecovers and placemats.

It has already put in an option for a second Maflex line.

Italy

WEPA SELLS FABBRICHE DI VALLICO TISSUE MILL TO ITALY'S EUROTEC

The German tissue giant WEPA has parted with its Fabbriche di Vallico tissue mill near Lucca in Italy.

The firm said it signed a contract for the sale of the site to the Lucca-based trader EUROTEC. The deal will come into effect on 1 April. The purchase price and further details of the planned transaction were not disclosed.

The Fabbriche di Vallico mill houses one tissue machine with a capacity of around 18,000tpy and employs 16 people. According to WEPA, the sale is part of its strategy to adapt its production capacity in Italy to the market situation in the country.

EUROTEC so far has been active as a commercial enterprise for parent reels. With the purchase of the Fabbriche di Vallico paper machine it is now moving into the production of semi-finished products for sanitary paper production.

"With EUROTEC we found a buyer that will continue to run the mill with its 16 current employees under their present contract terms," WEPA said in a statement. "Regarding our responsibility for all WEPA employees, this was the most decisive criterion for the sale [of the mill] to EUROTEC," it added.

According to WEPA, the new owner plans to invest in the modernization of the Fabbriche di Vallico mill and intends to secure employment there in the long term. Production at the site is reportedly expected to resume in a few weeks.

WEPA announced in August 2012 that it would sell two of the five tissue mills of its subsidiary WEPA Lucca in a move to adapt its capacity in Italy to the market situation. The sites in question were the Fabbriche di Vallico and Piano della Rocca mills in the Lucca area.

The 31,000 tonne/yr Piano della Rocca mill was sold to Roto-cart in April last year.

News from RISI (www.risiinfo.com)

Map 1 T&T operating mill locations in Benelux countries.

Benelux–success tied to world markets and EU trade

By Bill Burns, senior consultant, Fisher International

The Benelux Countries (Belgium, the Netherlands and Luxemburg) represent good trading partners in the European Union (EU). Belgium and the Netherlands (the only towel and tissue producers) both have a solid manufacturing base and robust agriculture business that trade extensively within the EU. Neither country is rich in natural resources making their economies vulnerable to volatility in world markets.

The Benelux towel and tissue (T&T) business is modest compared to countries like Germany and Italy, making 0.3 million MT/Yr. versus Germany at 1.4 and Italy at 1.8 MT/Yr. Despite recent relative improvements, the 2008-09 global economic crisis is having lasting impact on the financial sector leaving the Benelux countries increasingly vulnerable to spillover from euro-zone turmoil. The T&T business was fairly stagnant or shrinking slightly leading into the 2009 recession and has experienced further reductions in capacity since (Figure 1).

Benelux T&T mills are geographically dispersed throughout Belgium and the Netherlands (Map). Luxemburg does not have a T&T presence. Combined, the Benelux countries have a small presence in EU T&T capacity ranking behind seven other countries in the

> *'Combined, the Benelux countries have a small presence in EU T&T capacity ranking behind seven other countries in the EU and tied with Greece'*

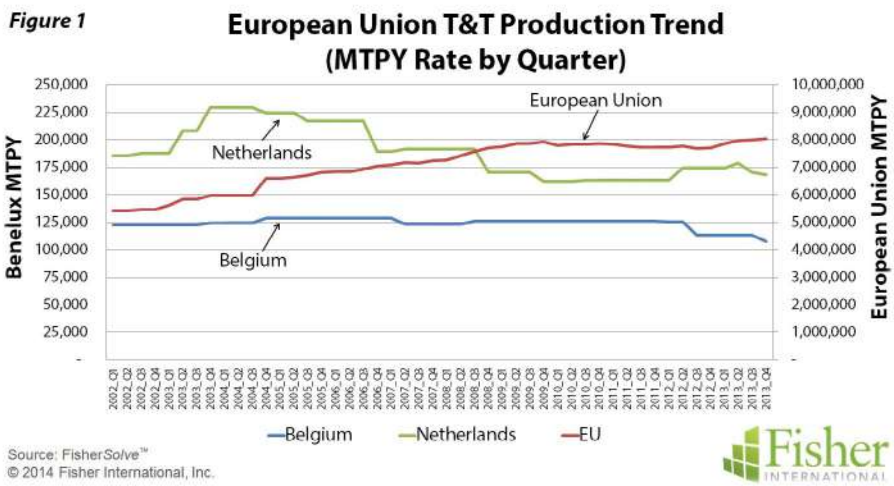

Figure 1 Trend plot for T&T production in the EU and Benelux countries.

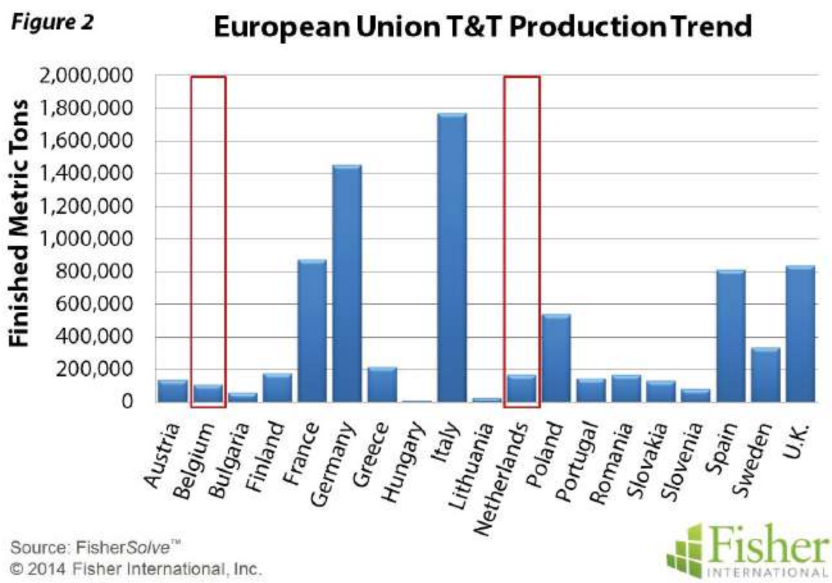

Figure 2 Distribution of T&T production in the European Union.

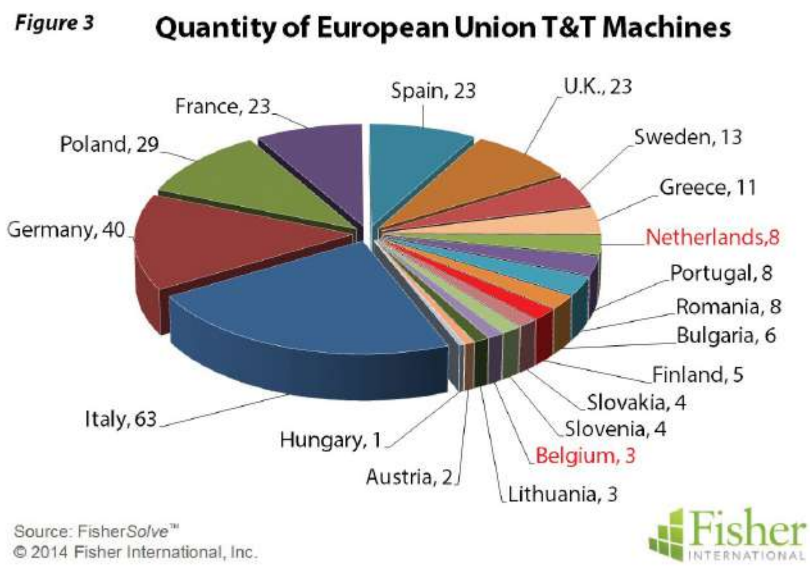

Figure 3 Distribution of T&T paper machines in the European Union.

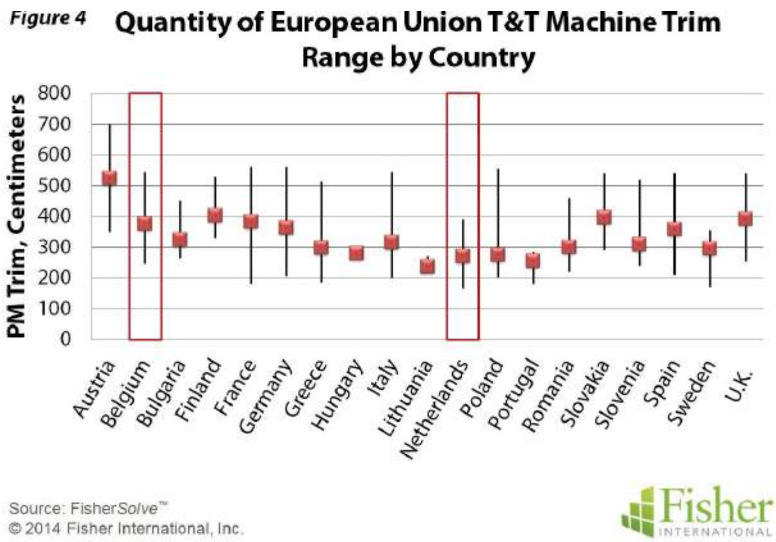

Figure 4 Distribution of T&T paper machine trims in the European Union.

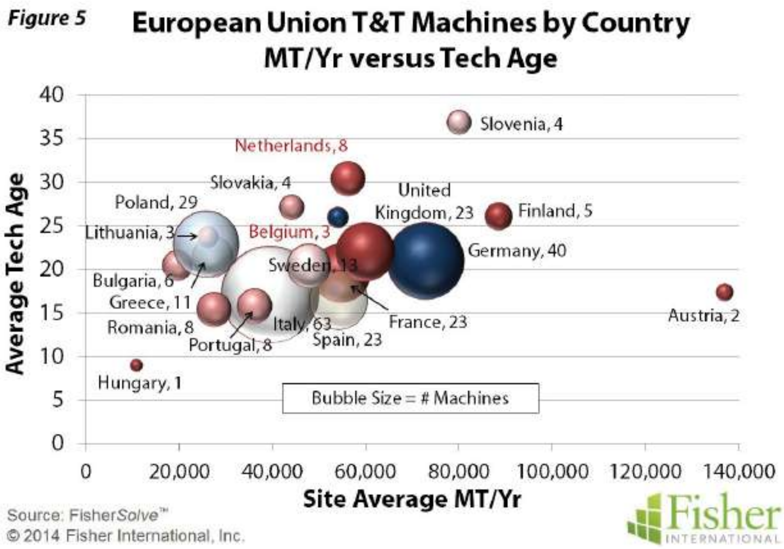

Figure 5 Technical age and production volume comparisons for the European Union T&T paper mills.

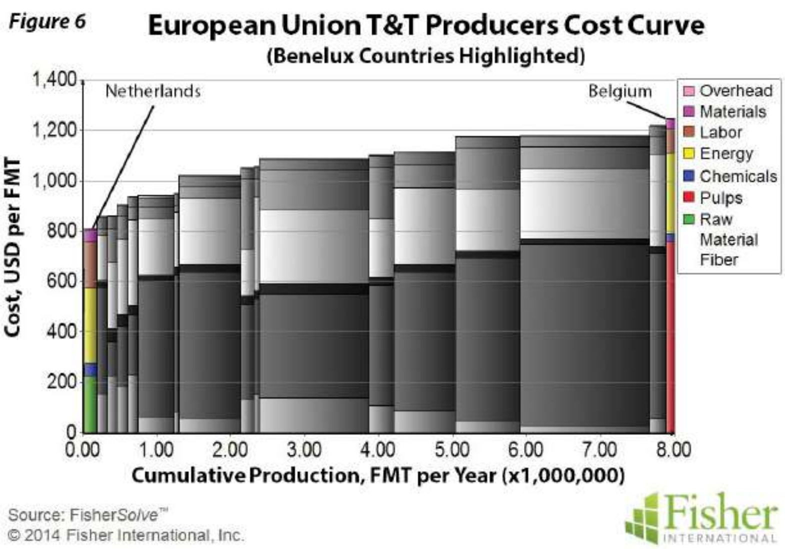

Figure 6 European Union country level cost curve for T&T production with Benelux countries highlighted.

EU (Figure 2) and tied with Greece for eighth in the number of operating machines (Figure 3). T&T machines in the EU vary from narrow two-metre machines to six metres. Machines in Belgium are typical while those in the Netherlands are on the narrow end in terms of the trim range for the region, with the average for Belgium and the Netherlands being 3.7 and 2.7 metres respectively (Figure 4). Mill production in Benelux is average compared to other producing countries in the EU at nearly 55,000 MT/Yr while the technical age of machines is above average (Figure 5).

Benelux's cost position in the EU represents high and low extremes. Belgium's cost is highest in the EU due mostly to reliance on purchased market pulp. The Netherlands is on the other end of the cost curve thanks to the low cost of recycling fibre (Figure 6). Fibre mix in Belgium is 100% market Kraft pulp; in the Netherlands it is 100% recycled (Figure 7). While recycled fibre is present in most countries, only three other countries are at or approaching the level of usage found in the Netherlands.

Benelux T&T machine production rates bias machines producing at the lowest range - less than 40,000 MT/Yr. Only a small percentage of machines are

'Mill production in Benelux is average compared to other producing countries in the EU at nearly 55,000 MT/Yr while the technical age of machines is above average'

Benelux in numbers

100%

Market kraft pulp in Belgium. Recycled fibre in The Netherlands.

40%

Of machines above 1,500mpm

8th

In EU T&T capacity

at moderate levels, producing in the 40,000 – 60,000 MT/Yr range (Figure 8). Machine trims are narrow with almost three quarters of the machines being less than 3.5 metres (Figure 9).

Machine speeds are also modest with only 40% of the machines above 1,500mpm (Figure 10) and only 12% at world-class levels above 2,000mpm. On the international scale, capacity-wise, Benelux machines are fairly evenly split below and above average but only one bumps into the top-producer range. Benelux machines are widely dispersed in the above-average range with regard to age; only one machine is below the worldwide average (Figure 11).

Worldwide, there is increasing interest in carbon emission from various industrial sources including paper production. Fisher International has recently added a carbon database and benchmarking tool to its FisherSolve™ modelling of the pulp and paper industry. Carbon modelling results for the EU indicate a weighted average of 1.363 MT CO2 eq/FMT for cradle to gate emissions. Comparatively, worldwide weighted average for T&T is 1.613 MT CO2 eq/FMT. The two Benelux countries are at or slightly above the EU average but below worldwide (Figure 12).

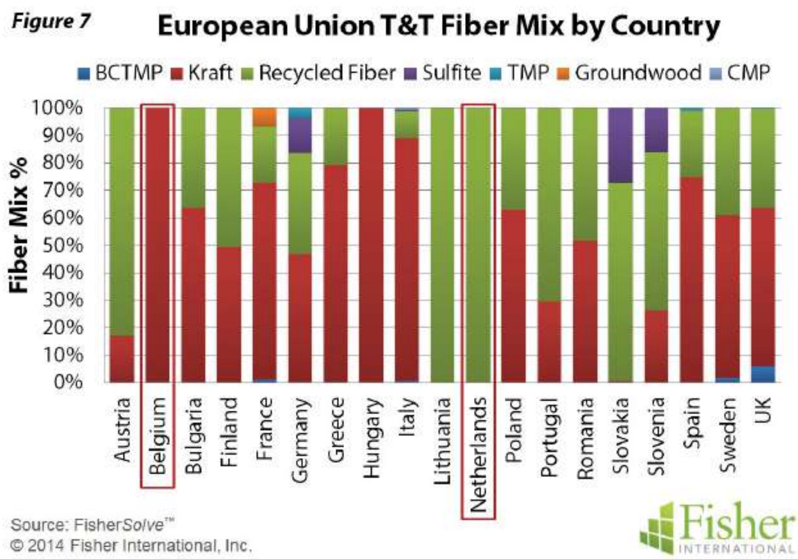

Figure 7 Fibre mix comparison for European Union T&T producing countries

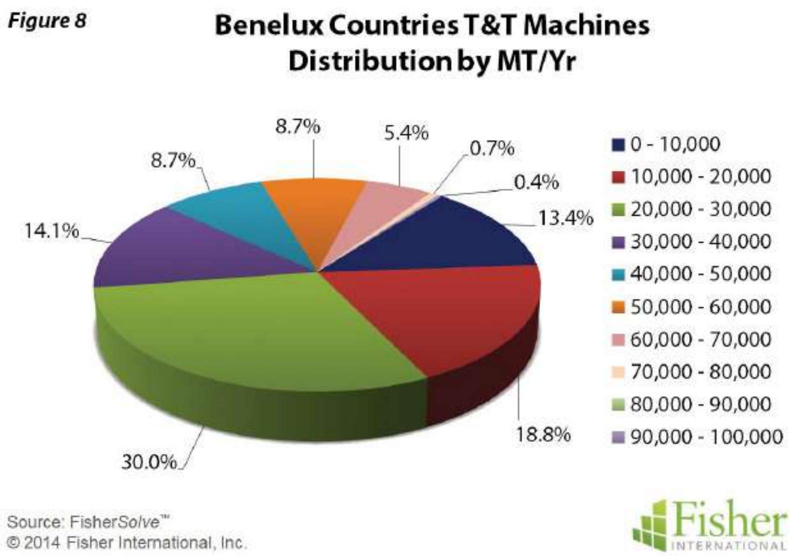

Figure 8 Distribution of Benelux T&T paper machines by production rate

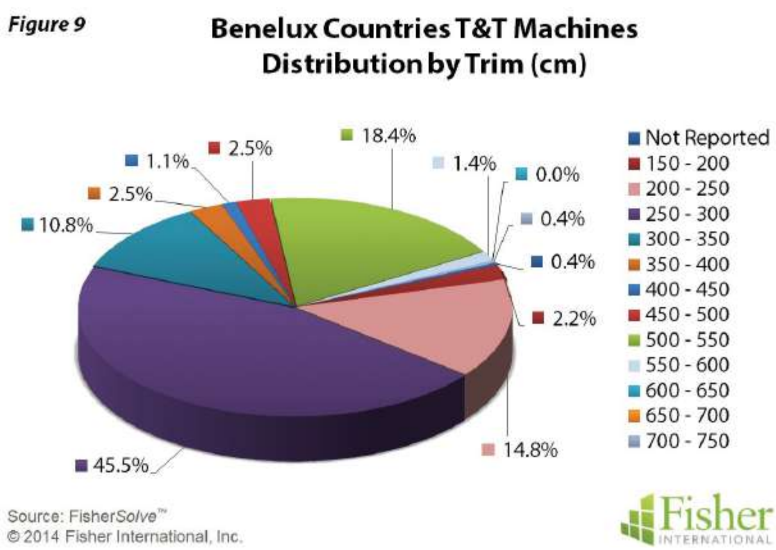

Figure 9 Distribution of Benelux T&T paper machines by trim class

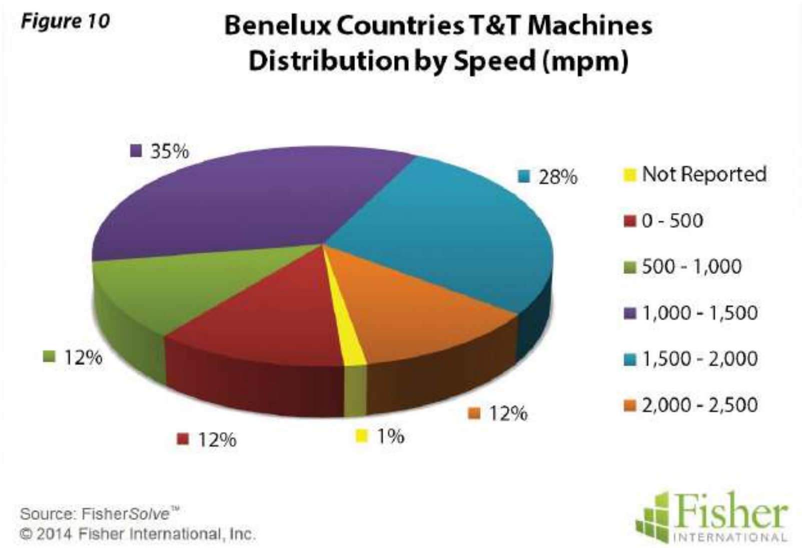

Figure 10 Distribution of Benelux T&T paper machines by speed class

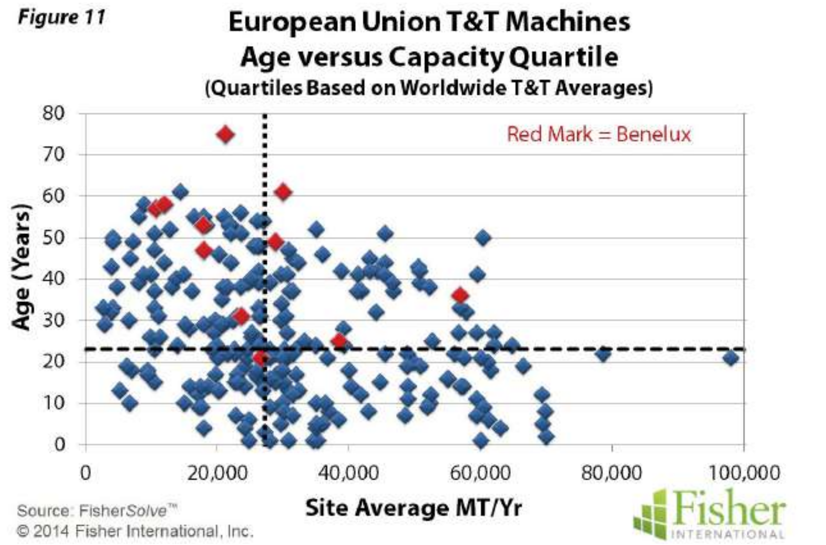

Figure 11 Dispersion of Benelux T&T paper machines against worldwide average production and age

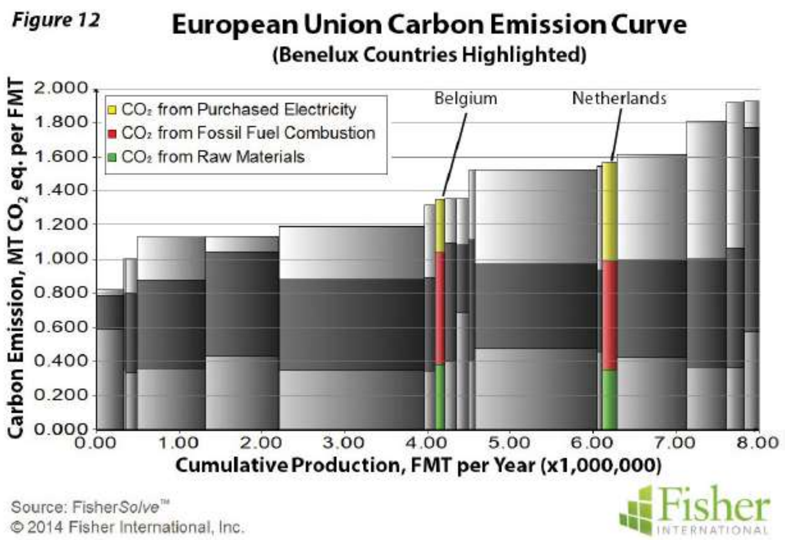

Figure 12 European Union country level carbon emissions curve for T&T production with Benelux countries highlighted.

The source for market data and analysis in this article is FisherSolve™. Data tables behind Figures 1 - 12 can be obtained from Fisher International. Email requests to info@fisheri.com.

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FisherSolve™ is the pulp and paper industry's premier database and analysis tool. Complete and accurate, FisherSolve is unique in describing the assets and operations of every mill in the world (making 50 TPD or more), modeling the mass-energy balance of each, analyzing their production costs, predicting their economic viability, and providing a wealth of information necessary for strategic planning and implementation. FisherSolve is a product of Fisher International, Inc.

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Fisher INTERNATIONAL

By IAN BELL
Euromonitor International's global head of tissue and hygiene research

Despite the economic gloom, tissue makes some headway in Benelux

With words such as 'feeble' and 'modest' peppering any references to economic recovery in 2014, the economies of Belgium, the Netherlands and Luxembourg continue to languish in the doldrums post global recession and the ensuing 'eurozone' debt crisis. The latest and most protracted period of economic gloom to affect the region has however created a landscape in which tissue products have had the opportunity to deliver some surprises.

In Benelux, as across the rest of Western Europe, tissue products are broadly regarded as commodities, their performance tightly tied to that of the economy. Private label leads the way across Benelux in terms of brand share, taking a 70% value share of tissues in Belgium and a 51% value share in the Netherlands. On observing such figures, anyone could be forgiven for thinking that, in this corner of Europe at least, tissue products are regarded as a lost cause in terms of value growth. However, dig a little deeper and there is a glimmer of hope, suggesting that the region's continuing economic woes are creating pockets of opportunity – perhaps surprisingly – for premium tissue products.

Unemployment rates across the region are the highest they have been in a decade: Belgium 8.4%; Luxembourg 5.5%; and the Netherlands 6.7%. With relatively high unemployment and job insecurity, consumers have looked to curtail expenditure, promoting 'staying at home as the new going out', and here lies the opportunity for tissue products.

PREMIUM PRODUCTS FIND POCKETS OF OPPORTUNITY

Of course, many consumers are still looking for cheaper alternatives, and value-for-money brands are a favourite as families seek cheaper products in order to balance the household books. The strength of private label is testament to this. Perhaps unexpectedly, however, sales of some premium tissue products have risen as consumers forced to spend more time at home have traded up in an attempt to improve their domestic environment/experience.

'Instead of going out to dinner, consumers are opting to entertain friends at home, prompting increased sales of kitchen towels, tissues and toilet paper.'

Instead of going out to dinner, for example, consumers are opting to entertain friends at home, prompting increased sales of kitchen towels, tissues and toilet paper. Even something as mundane as the increased number of consumers choosing to stay at home during holidays and higher unemployment rates have both resulted in more time spent at home thus having a positive cumulative effect on sales of tissue products.

Despite the woeful wider economic circumstances, retail tissue experienced healthy growth of 5% in value to reach sales worth €511 million in 2013 in the Netherlands, while Belgium saw a 2% value increase to reach €303 million, which is not bad for a category that many may have presumed to be struggling given the circumstances.

SCA MAKES GAINS IN TOILET PAPER

Toilet paper – the Benelux's largest tissues category, accounting for 63% of all value sales – is a prime example of a category following the premiumisation trend. While standard toilet paper remains the dominant category in the region, in the Netherlands in particular, it is luxury products that have seen the most dynamic growth of late, driving 6% value growth in the category in 2013. Of course, these gains have not happened by accident; branded manufacturers have been savvy to capitalise on the stay-at-home trend. SCA's Edet has made the largest gains in the category.

Products on offer include premium paper with almond milk and wet toilet paper complete with a hanging mechanism for convenient storage. These innovations have served to entice some consumers away from standard products. Despite the proliferation of private label products in the category, and the difficult economic conditions, Edet gained share

BENELUX IN NUMBERS

70%

Private label value share of tissues in Belgium

5%

Growth in retail tissue in 2013 in the Netherlands

63%

Toilet paper value sales

in the Netherlands in 2013. The brand's bold investment in luxury products has not only paid off, but it has also helped to drive growth in the category.

SMALLER SHEET OPTION PROVES POPULAR IN THE KITCHEN

Although the private label stronghold in tissues is continuing, similar premium innovations are aiding value growth here too. Decorated boxes, tissues with a fragrance and pocket tissues with a menthol or eucalyptus scent drove 3% value growth in tissues in 2013 across. Product names– Lotus Ultra Soft, Tempo Box Four Plies and Kleenex Balsam Fresh to name but a few – are playing on consumer desires to bring a touch of luxury to the home.

'Luxury toilet paper products have seen the most dynamic growth of late, driving 6% value growth in 2013.'

The kitchen towels sector, meanwhile, is benefitting from consumers trading down from more expensive home care wipes and, as a result, the category recorded 4% value growth in Benelux over 2013. Cost-saving innovations such as maxi rolls and the option to tear off smaller sheets in the case of SCA's Okay – an innovation that gained the Okay brand share in 2013, taking its value share in Benelux to 13% – have proved a hit with consumers by tapping into their budgeting concerns.

DISCOUNTING HELPS NARROW THE PRICE GAP

While branded manufacturers' achievements under difficult economic circumstances should not be overlooked, an element of tactical pricing has also served to buoy sales. Disguised under various formulae, such as six rolls plus two free, right up to 32 rolls plus eight free, tissue products have been increasingly sold in jumbo, mega and economy packs. Although eating into profit margins and not an ideal tactic for branded manufacturers, this narrowing of the price gap between premium and standard products has helped convince consumers to trade up.

PRIVATE LABEL CONTINUES TO PILE ON THE PRESSURE

Looking ahead, despite the recent success of some premium products, that these pockets of opportunity will continue is by no means guaranteed. Consumer preferences could easily swing the other way, with budgeting taking precedence. The year to come is however likely to see the region defined by two contradicting trends. On the one hand, stay-at-home consumers will treat themselves to more comfort and higher quality, offering opportunity for brands to capitalise. On the other, the continued impact of the recession will cause consumers to search for cheaper products within tissue, putting private label firmly in the driving seat.

Whichever way the category tips however, in a bid to bag some share from the premiumisation trend, private label manufacturers are also likely to offer more in the way of luxury products in their ranges. Priced lower than premium brands, these economy-luxury products will further pile the pressure on branded manufacturers.

GROWTH FORECAST DESPITE CONTINUING CHALLENGING CIRCUMSTANCES

Whether the balance will tip towards premium branded products or private label products in Benelux in the year ahead remains to be seen; however, the branded tissue products that have found success in 2013 serve to illustrate that, even in a mature, commodity category, the right innovation can generate growth momentum out of the gloom, despite the most challenging of economic circumstances. With forecast value growth for the Benelux region likely to be around 2% for 2014, retail tissue products have proven once again that they are nothing to be sniffed at.

'The continued impact of the recession will cause consumers to search for cheaper products within tissue, putting private label firmly in the driving seat.'

Van Houtum aims to better substantial value growth in washroom solutions

"We make sure our tissue and all additives used are biodegradable" - production of the company's Satino product range

Exporting finished product to 25 companies and with annual turnover of €60 million the Dutch niche player is looking to grow through value-increase

By **HELEN MORRIS**, *Tissue World Editor*

"We're a small niche player," Van Houtum general manager Bas Gehlen tells TW from his office in Swalmen in The Netherlands. "Because we are a very small company we can always find opportunities to grow. We're looking to grow step by step and we're focusing and investing heavily in our brand. We want that brand to grow and make our business value grow." An independent business, Van Houtum has been producing hygienic paper for more than 75 years. It is Benelux-based and focused, but 50% of its turnover is from export business, mainly in the UK and Germany. "We're seeing a lot of potential all over Europe for our sector," he says.

It now exports finished products to 25 countries, but basically not any further away than Greece and the UK. "We're looking instead at value-increase," he adds. "As a small player there are many opportunities around us."

The company went cradle to cradle a few years ago and hasn't looked back. It now produces products for toilet areas such as washing solutions that include tissue dispensers, an area Gehlen says is thriving as more and more businesses start to care about their bathroom area. "It's become ever clearer that as a business you need to take care of your washroom; it's the business card of your company," he says. "Selling the total concept is a great niche to be in."

The 190-staffed plant manufactures 42,000 tpy and has an annual turnover of €60 million. There are two PMs and Gehlen is looking to replace the 1ply creping machine in the next few years. A separate location nearby houses nine converting lines: three rewinders produce toilet and industrial products and six lines produce interfold and multifold products.

He adds: "This is where the growth is, where the opportunity is. We're seeing a substantial growth this year. Volume is still growing and we will look to steadily increase our capacity

The Swalmen site produces 42,000tpy

Van Houtum general manager, Bas Gehlen

'Our focus is a combination of brand and environment, of design and sustainability. There's a lot of market demand for that.'

in the next few years with increased manpower. Our focus is a combination of brand and environment, of design and sustainability. There's a lot of market demand for that."

He adds that products are even more environmentally friendly now: "Sustainability is high on the agenda for us and one of our main developments has been the Satino Black brand. It's currently 10% of our Benelux business but this is growing and developing significantly."

The Satino range includes Premium (white, multi-ply, 100% recycled paper) Comfort (natural white, 1-ply and multi-ply, 100% recycled paper) and Basic (1-ply, functional and economical, 100% recycled paper). The production process for Satino Black consumables and dispensers are Cradle to Cradle-certified and carbon neutral. Production of the product included a detailed analysis with the EPEA, an international scientific institute in Germany, of all chemicals used in its production. "The aim was to identify the presence of pollutants but also determine their bio-degradability," Gehlen says. "All the substances that did not comply with strict requirements have been replaced by 100% safe, non-toxic and/or bio-degradable ingredients."

"Traditionally one talks about reducing waste and negative impact but we want to change that so our business has a positive impact for all stakeholders. We make sure our tissue and all additives used are biodegradable and we have developed a product that only has good chemicals, something that took three years to develop. It all relates back to our main market strategy – strong branding and a strong environmental stance and it works."

The business has several certifications including Eco Label and FSC Recycled/ 1SO 9001 / 14001 / 18001 / 50001, which Gehlen says "helps the company identify where it needs to improve and also helps set the right mindset within the business so that all staff are fighting the same battle".

He adds that safety was "a real issue" in The Netherlands, but now the business has created awareness by

'It's become ever clearer that as a business you need to take care of your washroom; it's the business card of your company.'

implementing a safety management system. "Everything we do has a high focus on the environment and safety," he says. "This is becoming a competitive edge."

In the next five years, Van Houtum's focus will continue to be on washrooms. "There's private label in the business but that's a different story from selling your own brand, it's a different playing field," Gehlen adds. "We were into the retail business many years ago but the fit was better business to business and we're now 100% business to business. However, what we're seeing now is the consumer market is coming to us. The economic conditions here have created a different environment so we're considering going into the consumer arena with the same market strategy prioritising design and environment."

FACTFILE

General manager - Bas Gehlen

Location - Swalmen, The Netherlands

Staff - 190

Exports - finished products exported to 25 countries

TPY - 42,000

Annual turnover - €60 million

Ranges - Satino range includes Premium (white, multi-ply, 100% recycled paper) Comfort (natural white, 1-ply and multi-ply, 100% recycled paper) and Basic (1-ply, functional and economical, 100% recycled paper)

Certifications - Eco Label and FSC Recycled / 1SO 9001 / 14001 / 18001 / 50001

'I hate to walk around looking like John Wayne'

Paul Seviour (far right) reveals why the wrong sort of loo roll doesn't make his day

"I have never been overly brand conscious and I certainly am not the kind of person to get sucked in by clever and deeply biased television marketing, but I do believe that buying premium brand toilet roll is extremely important. It has nothing to do with cute little puppies on TV running around tearing the place up with tissue, neither has it to do with the gimmicks that the mainstream companies come up with, such as luxurious quilted tissues, or all the lovely different colours you can buy them in so that they match the colour of your bathroom wallpaper, or all the different scented ones (although I do like those tissues that are kind to your nose because they're soaked in albas oil).

Buying premium brand tissue instead of non-premium brand tissue is important because of the quality. I just don't think that non-premium brand tissue has the same quality. Sometimes it feels like you're using reconstituted sandpaper and that sort of thing can put a dampener on anyone's day and there's a good chance you'll spend the next hour or so walking around like John Wayne.

I understand why this is the sort of loo roll you are likely to find in a shop or restaurant, they must go through loads of the stuff. These places are running a business and I can appreciate that they have to get the cheap stuff in. But what about the work place? You always hear about companies trying to make their staff happier. I think buying premium-branded toilet paper should be a priority for the work place too.

There are a couple of small reasons as to why it is important to afford yourself one of life's simple comforts. You don't need to go crazy and get the velvet lined lilac toilet roll with little flowers printed on them, just good quality premium bog roll. As well as improving your quality of life premium-branded toilet paper and tissue products will almost certainly earn you kudos from any of your guests who use your bathroom.

"As well as improving your quality of life premium-branded toilet paper and tissue products will almost certainly earn you kudos from any of your guests who use your bathroom."

"Buying premium brand tissue instead of non-premium brand tissue is important because of the quality."

Luxury products have been the most dynamic at 6% value growth in 2013

How the largest facial tissue plant in Europe is stepping up to meet customer demand

After TW's visit to Belgium and the Netherlands for this issue's regional report it was evident that the economic gloom and mature markets in Europe are not dampening creativity but rather creating pockets of opportunity and growth momentum.

SCA Hygiene Product's Stembert site is a case in point; its sales in retail tissue products continue to beat the economic doom and have resulted in significant growth.

TW meets site manager Jacky Dechamps at the Belgium plant that is located close to the German border. His English is impeccable and his humour evident from the very start when TW is made at home with the offer of "a cup of tea in a Prince William mug".

The 280-staffed plant was established in 1966 and now has two PMs and nine converting lines producing 80,000 tpy. PM1 was established in 1966 and is completely dedicated to facial tissue, something Dechamps says is quite unique for the Benelux region and is the largest facial tissue plant in Europe.

PM2 was established in 1977 and produces 60,000 tpy of toilet tissue. Some 80% is for local demand in the Benelux region. In 2000, the company removed six converting lines and replaced them with three Futura lines which now manufacture 60,000 tpy.

"We have a very clear vision," Dechamps says. "We have to be the best in terms of productivity. If you want to be predictable in terms of the quality of product you produce, you have to be very productive and innovative so that when a retailer asks for a certain product we can provide it without hesitation."

The mill's progress despite Europe's recession is impressive.

"We've improved productivity at the site by 35% in five years."

Site manager Jacky Dechamps

SCA Hygiene Product's Stembert plant was established in 1966

The plant's two PMs produce 80,000 tpy

'If you want to be predictable in terms of quality you have to be very productive and innovative.'

"Since the Georgia-Pacific takeover it's been very important for us to show a different side to our business in the Benelux region," he says. "We've embraced continuous improvement and we've improved our productivity on some assets by 35% in five years at the plant."

Private label leads the way in the region in terms of brand share, taking a 70% value share of tissues in Belgium and a 51% value share in The Netherlands. Retail tissue has experienced healthy growth of 5% in value to reach sales worth €511 million in 2013 in The Netherlands, while Belgium saw a 2% value increase to reach €303 million.

Toilet paper is the largest tissue category accounting for 63% of all value sales and luxury products have seen the most dynamic growth, driving 6% value growth in the category in 2013.

For the Stembert plant, 72% of its production goes to the Benelux region while 11% goes to France, 7% to Germany and the remaining 10% to other countries nearby. "This will remain stable," Dechamps says. "One change is private label, where companies are raising the bar in terms of how they differentiate themselves by creating a brand new product that doesn't already exist as a brand, such as five ply products. This is exported to countries such as Germany and France because we're seeing more and more of a market trend for such products there."

He adds that four ply was previously "the most exotic" but the plant is now pushing the boundaries even further.

Some 72% of the site's production goes to the Benelux region

"Market demands are changing. We get a lot of demand for five ply products with quirks such as these from Germany and France."

Tissue boxes also offer a niche for the site. The plant has seen a 500% increase in demand for ZOO boxes products and Dechamps says that even private label is now willing to have such products on their shelves. "We're seeing a huge increase in demand from French clients for this product and it's a nice way to differentiate our product offering. It's this sort of continuous improvement that is our main market strategy."

'Companies are raising the bar by creating a brand new product that doesn't already exist as a brand.'

Tissue boxes offer a niche for the site

FOEX

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Providing PIX pulp price indices to the tissue industry gives the paper producer and buyer insight in the price trends with a weekly frequency. This way companies have better tools to budget their cost or income structure and profitability, and may concentrate on their core businesses with less time spent on price negotiations.

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Note

PIX values, $ or € / metric ton

Product	PIX latest values	
Pulp NBSK USD	921.90	$
Pulp NBSK EUR	669.01	€
Pulp BHKP EUR	555.39	€
Pulp BHKP USD	765.33	$
Paper LWC	656.28	€
Paper Ctd WF	661.37	€
Paper A4 B-copy	827.93	€
Paper Newsprint	483.65	€
Kraftliner	554.13	€
White-top Kraftliner	749.89	€
Testliner 2	479.48	€
Testliner 3	457.74	€
RB-Fluting	451.44	€
PIX OCC 1.04 dd	114.39	€
PIX ONP/OMG 1.11 dd	126.27	€

PIX Pulp indices 25.3.14

Paper industry

More statistics are gradually coming out over the pulp and paper industry performance in 2013. As we have reported earlier, the printing and writing paper demand in the world has been estimated (by PPPC) to have fallen by 0.6%. The total consumption of printing and writing papers is 91-92 million tonnes. Corrugated board is the largest of the various paper and board industry sector grades. The consumption approached 150 million tonnes in 2013 and will move above that benchmark this year. In 2013, the world demand of corrugated board, most of it recovered paper based, is estimated to have grown by over 4 million tonnes, or by nearly 3%. With some growth seen also in bleached paperboards and some other industrial grades as well as in tissue paper, the total paper and paperboard consumption grew in 2013 by

By **LARS HALÉN**,
senior manager, FOEX Indexes

By **TIMO TERÄS**,
managing director, FOEX Indexes

Change from previous week		%	Change from beg .of year		%
0.73	$	0.08	13.54	$	1.49
5.53	€	0.83	2.76	€	0.41
4.60	€	0.84	-9.06	€	-1.61
0.61	$	0.08	-4.24	$	-0.55
1.09	€	0.17	-4.37	€	-0.66
0.47	€	0.07	-6.07	€	-0.91
-0.28	€	-0.03	-9.70	€	-1.16
0.09	€	0.02	10.49	€	2.22
-0.75	€	-0.14	-20.17	€	-3.51
-1.34	€	-0.18	-11.05	€	-1.45
-1.05	€	-0.22	-0.28	€	-0.06
-0.80	€	-0.17	-1.96	€	-0.43
-0.64	€	-0.14	0.54	€	0.12
0.19	€	0.17	1.21	€	1.07
-0.03	€	-0.02	-3.60	€	-2.77

about 5 million tonnes or maybe even a bit more.

The key numbers over February 2014 performance weren't ready at the time of writing. But with weather related disturbances in production and delivery logistics, the numbers are expected to be relatively weak. Utipulp's market pulp consumption numbers support this view. The February 2014 market pulp consumption by the European paper and board makers fell by 3% against the February 2013 volumes. Also the news received over the development of paper industry order books suggests relatively modest paper demand volumes in February. As the paper price negotiations went on in many cases through February, the order book levels don't necessarily give a reliable picture of the true paper demand development.

NBSK pulp Europe

The softwood pulp market remains firm, even if the first data available over the European pulp market development in February is relatively weak. Consumer stocks of market pulp came down by one day's worth of consumption, or by 3.8% against February 2013. Port stocks of pulp, reported by Europulp, were up by 2.1%, or 20 000 tonnes from January and up by almost 80 000 tonnes, or by 8.2%, against February 2013. The producer stock levels are awaited with keen interest. Euro weakened this time against the US dollar by 0.7%. Our PIX NBSK index advanced by 73 cents, or by 0.08%, to 921.90 USD/tonne. When converting this dollar-value into euro, the benchmark went up by 5.53 euro, or by 0.83%, and the PIX NBSK index in euro closed at 669.01 EUR/tonne.

BHK pulp Europe

In hardwood, consumers' hardwood pulp stocks were virtually unchanged from last year. Market balance remains in hardwood weaker than in softwood although the wood supply problems and production curtailments in Indonesia and weather-related logistics interruptions in North America are balancing the effects of the anticipated volumes of pulp from the new projects, reaching the markets at some point in Q2/Q3.

Euro weakened by 0.7% against the dollar from the previous week. The PIX BHKP index value in Euro increased by 4.60 euro, or by 0.84%, closing at 555.39 EUR/tonne. The PIX BHKP index value in dollars gained 61 cents, or 0.08%, and settled at 765.33 USD/ton.

Value-added TRIF reveals shifting trends facing global trade

Increased customer sophistication, sustainability, e-commerce, innovation, multiculture, aging population, decline in household income, slowing population growth, convenience, increased global logistics... the launch of the Tissue Retailers and Distributors Insight Forum (TRIF) at Tissue World Americas 2014 gave a deep and broad insight into critical drivers of an enterprise that touches nearly everyone in the world.

LYDIA WORK, PRESIDENT AND FOUNDER, AMERICAN PAPER CONVERTING, USA

How the Away From Home (AFH) Tissue Business is Changing and Why

"The towel and tissue industry continues to be a vibrant, growing enterprise literally touching nearly everyone in the world. One third of all T&T products reach consumers through the very fragmented AfH market. Health care, contract cleaners, industrial and educational market segments accounted for 57.7% of AfH sales. A 2013 ISSA/SM sanitary supply study revealed janitorial distribution sales of $24 billion and annual growth of 2%. The growth in the market can be attributed to sales increases in restrooms' consumables such as soaps, sanitisers, facial tissue and towels. Towels, facial, bath tissue and napkins continue to be the leading product category by sales volume.

"The industry continues to be very competitive, with customers becoming more sophisticated in their use of a vast electronic data base in decision-making. "Cleaning for Health", "Sustainability", and "Product Differentiation" are the leading trends in today's marketplace. Touchless systems for faucets, soap and paper dispensers and doors are becoming commonplace. How are these changes and trends impacting T&T manufacturers and convertors?"

THE WORLD WE LIVE IN – US STATISTICS

The US Centre for Disease Control and Prevention estimate 1 in 20 patients in US get nosocomial (hospital-acquired) infection causing 90,000 deaths.

Two million people became ill last year.

The cleaning industry reported 21,500 recordable injuries in 2010 resulting in 84,000 lost days and $5.8 million in lost dollars.

Cleaning budgets are still being cut.

SUMMARY

Distributor sales grew 1.7% from 2010 to 2012. Sales now total $24 billion.

Health Care, industrial, contract cleaners and educational market segments accounted for 57.7% of distributor sales in 2012.

Towels, facial tissue, toilet tissue continues to be the product that sold the most by dollar volume.

Sustainability – demand for recycled products continues to grow but consumer is not willing to pay more and expects product performance.

Product differentiation.

Cleaning for health – touchless and controlled dispensing.

Distributor Sales (market segment): Main Sectors

14.9% - healthcare

14.6% - industrial

14.5% - contract cleaners

13.7% - educational

8.4% - governmental

7.9% - retail

6.6% - restaurants/clubs

Distributor Sales (volume)

Distributor sales grew 1.7% from 2010 to 2012. Sales now total $24 billion.

54.4% - paper/plastics

27% - chemicals

8.1% - supplies/accessories

7.1% - power equipment

3.4% - other

Reference - Report on 2012 Sanitary Supply Distributor Sales Sanitary Maintenance magazine and ISSA.

ROLF SKAR, FOREST CAMPAIGN DIRECTOR, GREENPEACE, USA

Making peace with Greenpeace in the tissue business; the business case for sourcing responsibly

The top 10 reasons to source responsibly:

10. Greenpeace.

9. Consumers will hate you if you don't.

8. Your competitors are doing it.

7. Your employees will hate you if you don't.

6. Environmental disruptions.

5. Reliable fibre supply.

4. Legality.

3. Legacy.

2. It's not that hard.

1. You don't have a choice!

TODD HALE, SVP-CONSUMER AND SHOPPER INSIGHTS, NIELSEN, USA

Evolving consumer and retail trends and the implications for retail tissue channels

A state-of-the-industry look at the US tissue business covering critical aspects including the changing retail landscape and performance in major channels (including e-commerce), total store sales trends as measured by Nielsen, major departments, total tissue category and each of the four segments; private brands versus national brands; and consumer trends such as economic divide, price and value, multicultural, aging, as well as sustainability issues.

KEY FINDINGS

US population grew by just 0.72% in the year ended 1 July 2013- the slowest growth rate since 1937.

In 2012, the incomes of the top 1% rose nearly 20% compared with a 1% increase for the remaining 99%.

Value stays as income goes.

Decline in median household income in nine of last 13 years.

KEY CONCLUSIONS

2014 will not be easy: financial headwinds, stagnant wages and slowing population growth will continue to limit spending power.

Pocketbook pressures: fixed expenses force some families to reduce household, food and discretionary spend.

What is the spending power risk or opportunity for your shoppers or consumers?

Winners will: Win the trip: through superior shopper or consumer connection, innovation and/or operating excellence.

Retailing at the extremes: drives store expansion and product innovation efforts.

Capitalise on meal trends: snack and meal blurring, convenient fresh/ healthy perceived offerings, ethnic/ specialty products and quality semi-scratch cooking options.

At-home time: opens opportunities for non-edible products too – brings about a closeness that should translate into sales for products that keep our households, our bodies and our pets fresh!

SOILE KILPI, DIRECTOR, PÖYRY MANAGEMENT CONSULTING, USA

Shipping air: how and why can foreign competitors thrive in North America

"Historically, the tissue industry has remained a largely regional business, with global trade having a small share of total consumption. High freight costs have been the driving force behind this phenomenon. However, North America re-mains an attractive market for tissue exporters due to the large population, consumer spending habits and stable demand growth. Large producers in Asia have pursued aggressive growth plans and at the same time North American players have invested in state-of-the-art technology, altering the regional cost structures. Will Chinese producers continue to pursue a presence in North American markets? Will players outside Asia, such as market pulp producers in Brazil, look to North America for opportunities? How can foreign exports compete in North America? Or is the freight cost barrier simply too high?"

Tissue: global production and consumption

The global tissue market is over 30 million tonnes. North America is the largest market while China's production and consumption have increasingly grown and are now at the same level as western Europe.

Tissue trade flows: parent rolls at two million tonnes

Trade is most active within Asia, between US and Canada and between the European countries.

World trade of tissue parent rolls: continued growth?

Global imports and exports of tissue have increased over 5% over the past 20 years. What are the future scenarios? Stagnation vs. growth.

Parent rolls: imports to North America increasingly from emerging countries.

Indonesia took share rapidly late 2000s and built a position in North America.

Go-to market approach: parent rolls.

• Long distance parent rolls – South East Asia supply

– Virgin fibre-based

– From a mill in coastal area

– Captive converting in target country, state-of-the-art – for private label and AfH

• Captive deliveries– trade with Mexico

– Recovered fibre and virgin fibre based

– Close to US/Mexican border, potential import/export of goods within company

JAMIE ROSENBERG, GLOBAL HOUSEHOLD ANALYST, MINTEL, USA

Changing the demographics: old gold

While an economising consumer mindset may be putting pressure on the category's smaller segments, cheaper products may not be the best way to rekindle interest in branded facial tissue and other declining paper category segments. The bigger opportunity for driving growth across the entire category revolves around new products that bring performance enhancements or compelling new benefits to preserve the value proposition of key brands.

This presentation looked at consumer research showing that consumers are rapidly changing their thinking about innovation in these categories to the point where they view premium features like strength, thickness and softness as value-added, and more times than not, worth the money. It also evaluated how mega-trends like health and wellness, aging populations, e-commerce, automation and globalisation point to a changing market.

'The bigger opportunity for driving growth across the entire category revolves around new products that bring performance enhancements'

KEY TRENDS SHAPING HOUSEHOLD PAPER INNOVATION:

• Consumers are associating quality with economy.

• Thicker paper saves money because you don't need to use as many.

• Tissue paper strength growing as a key claim

• Paper towels are growing functional benefits

• Changing demographics: old gold

• 50% of babies born in industrialised nations

• Men are living 11 years and women 12 years longer than 40 years ago.

• We will have to work for longer; to the age of 70 in Europe.

• Seniors are working beyond retirement for money or pleasure.

• Long-term: home automation may threaten the towel market.

• Whether retired, working or in need of care, the elderly are the key consumer demographic.

• Younger consumers buy less but tend to go premium.

• Value brands can backfire when consumers are leaving the category.

• New developments

– Parent rolls from Turkey and China

Finished tissue products: China in the lead

China has held a solid market position with converted products in North America.

CONCLUSIONS

Tissue parent rolls (two million tpy) and finished products (four million tpy) trade has grown globally.

USA is the major importer and Asia has quickly gained share as an exporter. Overall trade is very fragmented and multiple countries import and export.

Trade can be expected to increase.

Parent rolls and finished products shipments have steadily grown to the USA. Focus on conventional tissue and virgin/alternative fibres. Newer assets and access to low cost fibre – support export growth from select emerging markets.

Relatively high shipping costs but lower manufacturing costs with integrated concepts – mitigate shipping costs.

Producers have different strategic approaches to growth. Securing domestic business, entering new markets, exporting. Local/regional overcapacity mitigated by exports.

ESKO UUTELA, PRINCIPAL, TISSUE, RISI, GERMANY

New tissue supply in the Americas and impact on supply/demand balance

"The North American tissue business is in a mature phase but it continues to be surprisingly dynamic. The ten largest players account for 90% of the total tissue capacity, so the business is rather consolidated. In the United States the three main companies are estimated to hold an 80% share in the At-Home tissue sector and slightly more than 70% in the AfH sector. But this dominance seems not to frighten new entrepreneurs to enter the tissue sector. We have already seen the rapid growth of independent converters and they have gained substantial market share in the AfH sector in particular, and some of them have integrated backward into tissue making, at least partly. And even more companies are seriously considering new tissue projects, for example graphic paper producers trying to save their mills with new investments, or retired industry veterans who would like to return to the business. Imports also show an increasing long-term trend with additional volumes coming from Asia to North America. The battle between brands and private labels has accelerated investments and influenced the supply/demand balance.

"Latin America has also shown strong expansion in recent years with Brazil as the leading force. New projects have emerged as mushrooms after heavy rain, and more plans are in the pipeline. But typical to Latin America, many projects have been delayed, moved to the backburner and some even cancelled, which has helped the supply/demand balance."

Tissue consumption in the Americas by main country, 2012

USA - 64.5%

Brazil - 8.8%

Mexico - 8.1%

Canada - 6%

Argentina - 2.5%

Columbia - 1.7%

Chile - 1.6%

Venezuela - 1.3%

Peru - 1.1%

All others - 4.3%

North American tissue market growth has slowed down in the past five to six years; focus on product value, lightweighting cutting volume growth. Average growth 1.2% per annum.

Latin American tissue market shows varying annual but positive trend growth; economic turbulences and political instability causing problems. Average growth 4.7% per annum.

Volume growth of Latin American tissue consumption by main country, 2002-2012

Brazil - 410 thousand tonnes

Mexico - 260 thousand tonnes

Argentina - 140 thousand tonnes

Capacity shares of the main North American tissue suppliers, 2013 (end of the year). Top three players account for close to 60% and top 10 90% of capacity:

G-P - 29%

P&G - 15%

K-C - 15%

Cascades - 7%

SCA - 6%

Clearwater - 6%

Kruger - 4%

FQT - 3%

Irving - 3%

Wausau Paper - 2%

All others - 10%

The largest tissue suppliers in Latin America, 2013 (end of the year).

K-C is clearly dominant due to Mexico, but CMPC has expanded very aggressively in recent years with continuation expected.

Recent growth of tissue converters in North America (incl. partly integrated).

Tissue converters are a major factor in the North American tissue business, in the AfH sector in particular. A substantial part of their volumes is sub-contracting to larger suppliers.

US Tissue import developments, 2003-2013

Tissue imports have grown at an average rate of 4.3%/a, parent roll imports by 3.0%/a, converted product imports by 5.3%/a.

North American tissue market is maturing and the supplier focus has moved from volume to value. Product lightweighting is a major phenomenon and market growth should be measured in terms of product area and value rather than weight.

• Latin America is in an interesting development phase and tissue consumption shows strong growth in several large countries, Brazil in particular.

• There are surprisingly many tissue expansion projects under consideration in North America, including plans by tissue converters, graphic paper companies and totally new entrepreneurs. In the light of currently committed projects supply and demand are rather well in balance but any emerging new commitment would worsen the outlook.

• Latin America's growth has attracted companies to invest in new tissue capacity and the number of new project plans is huge, for this year in particular. However, start-up delays are typical which will likely help the supply/ demand balance similarly as in the past.

STEWART VAN HORN, SENIOR DIRECTOR GLOBAL SUSTAINABILITY, KIMBERLY-CLARK, USA

Achieving a superior sustainability footprint in tissue manufacturing

"Kimberly-Clark's mission to 'lead the world in essentials for a better life' has given an inspiring mandate to a three pillar platform for sustainability: people, planet and products.
Within the planet pillar of tissue manufacturing, solutions are deployed in each of the three major aspects of sustainability: fibre, energy and water.

"Responsible sourcing and conservation work together to create an environmentally superior footprint which delivers both economic and sustainability value to a company and its brand(s). Fibre from certified sources and recycled content helps to create an environmentally responsible footprint. Superior techniques for sourcing include incorporation of alternate fibre. Process innovation and best practices to recycle and repurpose waste into biofuels and other landfill-free waste outlets create superiority through lower dependence on forests and fossil fuels. Water must be responsibly sourced and replenished. Recovery and recycling along with best practice adoption for water efficient process, equipment and clothing design is required for an environmentally responsible footprint. Superior techniques include facility long-loop recycling, clarification and repurposed effluent components.

"Energy and fuel mix selection for lower green-house gas emissions provides a responsible footprint by minimizing impact on climate. Energy efficient best practices and efficient process heat and water management are required for energy conservation.

"Superior techniques include fuel switching, co-generation of electricity from lower GHG fuels, renewable energy and biofuel utilisation. Superior employee engagement through a conservation mindset can be achieved through real time energy management at that process level."

K-C's Fibre Sourcing Commitments

• Wood fibre suppliers are 100% certified

• 90% Environmentally Preferred Fibre (EPF) in global tissue by 2025

• 50% reduction in fibre sourced from natural forests by 2025

LINDA WALKER, DIRECTOR, WWF-US, GLOBAL FOREST & TRADE NETWORK, NORTH AMERICA

The business benefits of responsible tissue sourcing

World Wildlife Fund (WWF) shared compelling reasons why responsible fibre procurement decisions can be good for the planet and good for business. Consumers are asking more and more questions about the environmental footprint of products they buy. And more and more businesses are realising the business and brand value of responsible fibre sourcing, such as risk management, more efficient supply chains, stronger supplier relationships, positive perception among NGOs and trust of their customers. WWF shared examples of the ways it has worked with companies to develop responsible fibre sourcing programmes, set public targets and communicate progress.

Top reasons corporations are turning to sustainability to enhance business

Improve brand reputation - 48%

Increase competitive advantage - 31%

Better innovation of products - 28%

Reduce energy costs - 22%

Enhance stakeholder/investor relations - 19%

(Source: 2010 BCG-MIT Sustainability and Innovation Survey)

IN NUMBERS:

66% of corporate sustainability leaders have seen an increase in inquiries from shareholders about sustainability efforts during the past year.

(Source: Ernst &Young study with GreenBiz Group 2012)

96% of consumers surveyed globally said it is somewhat or very important that companies support the environment.

(Source: 2011 Cone/Echo Global CR Opportunity Study)

94% of consumers would buy a product with an environmental benefit – and 76% already have.

(Source: 2011 Cone/Echo Global CR Opportunity Study)

Business benefits of responsible tissue sourcing:

Risk management

Stronger supplier relationships

Reduced costs: supply chain efficiencies

High quality NBSK fibre for premium tissue paper grades

By Paul Watson, director of Canfor Pulp Innovation and Wlad Janssen, specialist on tissue for Canfor Pulp

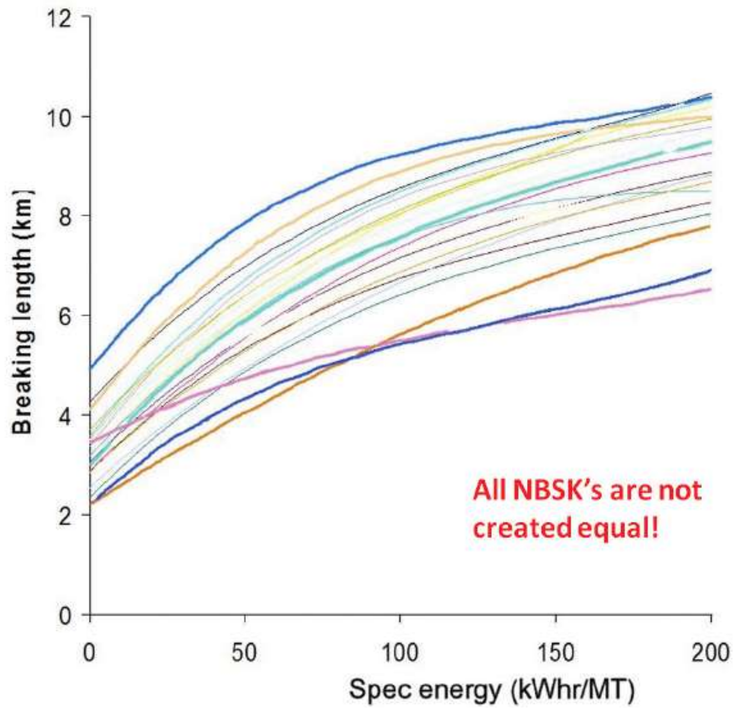
Fibre is the highest single cost element of a finished tissue product, typically more than 50% of the total cost, of course with variations and depending on quality attributes such as softness, bulk, strength and absorption.

The highest quality tissue products are still mainly produced using virgin pulps, usually a combination of long fiber softwood and short fiber hardwood pulp. The hardwood portion today is predominantly manufactured from eucalyptus.

There are tissue products made with 100% hardwood pulp, and these can be very soft as a result. However, there are drawbacks, such as strength degradation in embossing and lower converting efficiencies. Strength enhancing additives can be used, but these affect cost, and resultant tissue properties.

Because of the price differential between softwood and hardwood pulps, it makes sense to optimize the use of hardwood pulp in the furnish, without compromising the desired final tissue product properties and efficiencies in manufacturing.

The highest profit margins tend to be realized in the higher quality tissue products, and so these are "drivers" to obtain the highest quality possible. Quite often, the properties of brand leading tissue products have become the target for competitors. The pulp fibre, the manufacturing technology and know-how together deliver the level of quality achieved in the final tissue product.



All softwood kraft pulps are not equal, as illustrated in refining curves in figures 1 for BSK and 2 specifically for NBSK pulps. There are differences in unrefined strength (Breaking Length) and the strength increase obtained from refining is different for each pulp during low consistency (LC) refining. Generally the energy input is kept below about 100 kWhr/MT.

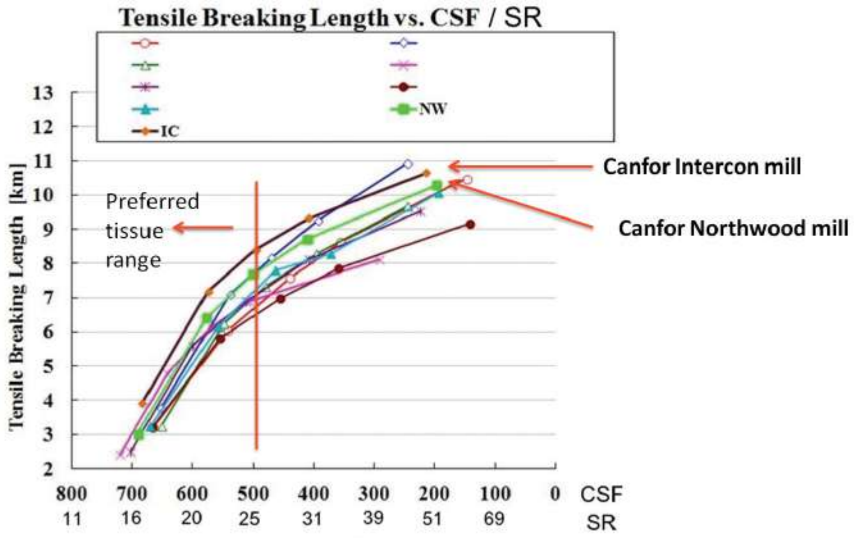
'Not all NBSK pulp is created the same, the quality differences should be exploited to increase quality and reduce the total cost.'

A very good fibre quality is essential for making the highest quality tissue product. In many industries the quality of the base materials governs the quality of the resulting product, and tissue is no exception.

The furnish for tissue contains fibres from different sources, i.e. from different (SW and HW) pulps that may be used plus some broke from the paper machine and possibly

By ***PAUL WATSON,***
director of Canfor Pulp Innovation

By ***WLAD JANSSEN,***
specialist on tissue for Canfor Pulp



'Fibre quality and furnish preparation account for more than 50% of the quality and more than 50% of the total cost, of a high quality finished tissue product.

broke from a converting operation. Chemicals including charge promoters, additives for strength, additives for promoting softness, enzymes, wet-strength resins etc are also present. Although the mixture can be quite complex, it is possible to make general observations about the desired properties for the furnish, and from this derive the key fibre quality factors that are required.

It is desirable to manufacture a tissue base sheet with the desired strength, bulk and softness utilizing a furnish that requires as little energy as possible for dewatering and drying on the paper machine.

The ease, or difficulty, of dewatering a fibre suspension can be measured by the degree of "freeness", commonly by SR (Schopper Riegler) or CSF (Canadian Standard Freeness). It must be remembered that freeness is an outcome of refining, not a target, and that freeness can be achieved through both optimized and suboptimal refining.

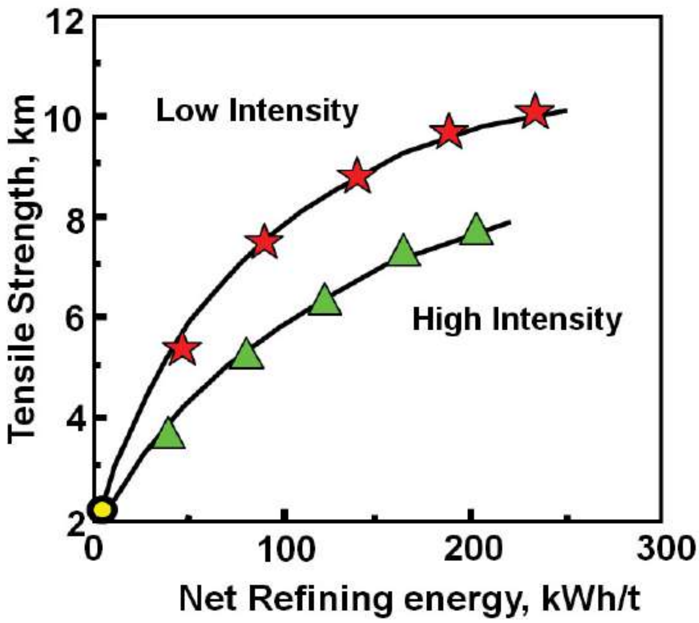
An easy draining furnish, as measured by a low SR or a high CSF, will tend to make both dewatering by mechanical means and subsequent drying easier, using less energy. For the tissue manufacturer this also results in a higher bulk and softness in a dry crepe process, everything else being the same.

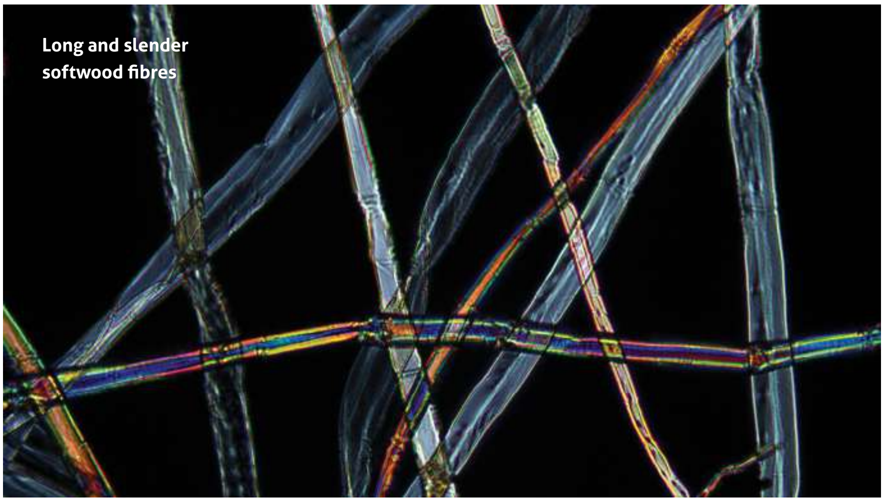
Fig 2 shows strength as function of freeness for a number of NBSK pulps which was determined using the pilot refiner at Canfor Pulp Innovation. The use of a pilot plant refiner gives results that are indicative for the results that can be obtained in a tissue paper mill, which is not necessarily true for PFI values that are reported by most pulp suppliers. A good value for freeness for tissue manufacturers is around 500ml CSF or 25oSR and the intersection of the demarcation line with the curves shows the resulting strengths. The NBSK pulps from Canfor Pulp, Intercontinental and Northwood, are identified in this graph as providing superior tensile strength.

A higher strength at a given level of freeness (preferably a high CSF/low SR freeness), enables reduction in the (highest cost) softwood component, while retaining resulting furnish strength and freeness.

If the higher strength is obtained while using a lower refining energy, and less softwood pulp needs to be refined, then this is an additional advantage that translates in lower costs.

Refining is a subject often overlooked by tissue makers as the negative effects such as loss of bulk and softness are well known, however the subject is too important to neglect.




Long and slender softwood fibres

Refining under proper flow and consistency conditions, using a plate design optimized to the furnish, results in a lower energy cost and higher pulp quality. It will also reduce potential to generate fines.

If the content of fines is high in the furnish, the drainage will be negatively affected, and dust can be generated on the paper machine and in converting, that could be avoided.

Fig 3 shows how low intensity refining of fine fibred NBSK pulp, using a low intensity fine bar plate design leads to higher tensile strengths at the same energy input, or lower energy input for the same strength.

In mill trials, we have found that refining is generally suboptimal. One of the reasons is that a typical tissue mill produces quite a few different products from varying furnish compositions. In these furnishes, the softwood portion to be refined can vary, for instance, from 10% to 60%, depending on the quality of the tissue being made and on the grade, i.e. napkin, toilet tissue, facial, towel, or another grade.

Under these circumstances, it will be difficult to maintain the proper flow and consistency conditions for the refiner that is used.

For soft and bulky tissue grades, refining of only the softwood is recommended. In most tissue operations active use is being made of the machine or "touch up" refiner. This refiner usually operates in its correct flow and consistency regime, however its energy should be minimized.

Co-refining mixtures of softwood, hardwood and broke, is common at the machine refiner.

Optimal refining for hardwood and softwood pulps is accomplished with different plate designs, but optimum refining of a furnish mixture can still be more challenging. Therefore the machine refiner should be used at a minimum energy input level.

The tissue web must be very flexible, have a high bulk, and a smooth surface, yet it has to be sufficiently strong, have good absorption characteristics, and should not significantly lose strength when being embossed, laminated etc.

This is a tall order, but it is generally accepted that the best fibres, both softwood and hardwood, for achieving this must be slender, long and have a small wall thickness.

The quality parameters of a pulp are commonly provided by a typical property sheet (TPS) that is based on standard pulp quality measurements.

The TPS is indicative but does not give a complete picture, as it is generally based on a single sample, occasionally updated, which reports measurements that are based on a standard handsheet not fully indicative for the performance in an actual tissue paper making mill.

Variability in the pulp characteristics are important and can change production efficiency and the quality of the end product, which in the case of tissue can be changes in strength, bulk and softness.

The results of the full evaluation of the properties of a pulp shipment is not known, because of the time it takes to complete the testing.

Canfor Pulp is now actively working to further optimise pulp quality variations by implementing a unique suite of state of the art fibre and pulp quality measurements and controls covering the pulp making process from the wood chip input to the finished pulp output.

Based on the concept of Total Quality Management, Canfor Pulp has code named this project "Mihari", the term is Japanese for "Watch Guard". Upon completion, comprehensive and up to date quality data will soon be available to every Canfor Pulp customer on a per shipment basis.

Canfor Pulp's ongoing commitment to tissue making is further exemplified in our unique technical information website (**www.temap.com**).

Canfor Pulp is a leading global supplier of northern bleached and unbleached softwood kraft pulp and paper products with operations in the central interior of British Columbia, Canada.


On line pulp testing module

HENKEL DELIVERS SOLUTIONS...
UPTIME.

KEEP YOUR EQUIPMENT RUNNING WITH AN OPTIMIZED ADHESIVE MANAGEMENT PROGRAM FROM HENKEL

As the adhesives market leader, Henkel is your global partner for all types of applications in the tissue & towel industry.

Henkel Excellence is our Passion

A half billion Euro investment with tissue at its core

Södra's expansion at Värö has the needs of tissue makers at heart. A TW report.

On 24 February 2014, Södra's board of directors gave the green light to invest SEK 4 billion in a major expansion of its Värö pulp mill in Sweden. This is the world's largest expansion of softwood pulp capacity in a decade and is designed very much with tissue makers in mind.

While expansions in hardwood pulp capacity in Latin America are being chalked up at a dizzying rate, it has been another story with softwood. The increasing substitution of softwood pulp with hardwood in tissue has been partly responsible for this rash of new hardwood capacity.

But the less softwood pulp in the mix, the better that softwood needs to be, as it is essential for the strength of the finished product. Capacity utilisation of softwood pulp mills is creeping up while that of hardwood is going in the opposite direction, and tissue demand is set to rise steadily for the foreseeable future. It all suggests that this injection of softwood capacity based on ideal raw materials for tissue production is very timely.

Work is now underway to select suppliers to increase Värö's current production capacity of 425,000 tpy to 700,000 tpy of pulp. This will make the mill one of the biggest in the world in terms of softwood sulphate pulp production.

To appreciate Värö's significance for tissue making requires a brief pulp history lesson. Canadian softwood kraft ceased to be an option for Europe's tissue makers when it was substantially withdrawn from the field from the mid-1990s as shipments switched to Asia. Europe's tissue makers had built their brands on the high-quality levels and reinforcement characteristics which the Canadian pulp imparted, and substitution needed careful thought. Södra's spruce thinnings-based Black Z, with its combination of high softness and tensile, was just what they needed to match their need for pulps with this specific combination of properties. So at that point Värö took the necessary production and market steps to increase the proportion of its output sold to tissue mills from 10-15% to around 70% - in tonnage terms a ten-fold rise from some 30,000 tpa to the 300,000 tpa accounted for by tissue mills today.

It is too early to say what proportion of the increased output will be used for tissue, but the tissue market will remain vital and this will be reflected in the pulp characteristics the mill will need to deliver. The tensile from softwood fibre on which tissue makers rely cannot be achieved by "just any old softwood" when used in relatively small quantities, particularly if softness is also required, as of course it is with tissue. Södra has found that its Värö tissue pulps, with Black Z as a golden egg in a wide portfolio, represent just the fibre which tissue makers need.

Started up in 1972 and employing some 330 people, Värö's position in South Sweden (Södra is the Swedish word for South), puts at its disposal forest resources which are very specific in nature. In the northern Nordic region, with a very short window of warm weather, fibre walls experience short, sharp periods of growth, which makes them thinner and better for soft tissue. By contrast in Southern Europe, dominated by radiata pine, the growing period is fairly constant throughout the year, resulting in a thicker fibre wall that is not so great for softness.

In Värö's vicinity, the growth characteristics are between the two extremes, so to achieve the softness it requires, Södra harvests the younger wood from forest thinnings, which have thinner fibre walls for a softer tissue. It is a win-win situation for Södra and the forest, because at a certain growth stage of a plantation, the forest needs to be thinned out to allow it to thrive, but the resultant thinnings are unsuitable for use in construction. So almost as a by-product of good forest management, Värö can procure the ideal raw material to which it can add value.

Major expansion: Södra Cell's Värö pulp mill in Sweden

As well as increasing pulp production at Värö, the investment just announced means that the mill can be made even more energy efficient. Värö is already independent of fossil fuels during normal operation and supplies of green energy can be increased still further thanks to this new project. The project management team is confident that that the project will meet all environmental requirements, and is cooperating with the authorities to put their minds at rest about the environmental impact. On the sustainability front, Värö can now supply FSC-certified pulp to all those who demand it and this will remain the case.

The last decade has seen a transformation of Värö's environmental profile, with a new recovery boiler, evaporation plant and causticizing plant. The most recent investments at Värö include the addition of two more screen rooms in 2011, supplied by Andritz and GL&V, to improve dirt content. This was followed by a process control upgrade, designed and implemented in-house, to produce much more consistent brightness levels. The installation of a new lime kiln in 2014 is the final step in a complete renewal of the recovery part of the process in just over a decade. Yet all these investments have been undertaken with future expansion in mind and will be able to accommodate the new capacity. In this sense they represent the start of an exciting new phase. The neighbouring sawmill is also perfectly poised to feed the increased demand for chips.

DEVELOPMENT OF TISSUE PULPS

The expansion at Värö will not only allow Södra to expand its position in tissue, but to continue its optimisation of softwood for tissue production. The expansion in Värö's capacity to more than 700,000 tpy will grow Södra's overall market pulp capacity by 20%, and require a major investment in best available technology which will equip Södra for the future development of its tissue pulps.

Södra's Business area manager for

As well as increasing pulp production, the investment means Värö can be made even more energy efficient

tissue, Marcus Hellberg, explains the significance of developments at Värö: "The mill's location is perfect to take advantage of the ideal raw material for tissue pulp. The rest is down to the process. This major investment will enable us to consolidate leadership and increase market share in key markets."

The story of the process begins in the woodyard where the raw material which is best suited to tissue production is now selected more deliberately than ever before. Then following debarking, the chipping process has been upgraded to provide a much more even chip size into the digester. If a mill has to deal with a mixture of large and small chips, the degree of digestion is more random. "Consistency is important for all papermakers," says Värö process manager Knut Omholt, "but tissue customers have a greater need of it than most." The digestion process, through chip-size management and other proprietary improvements, has been optimized over the past decade to capture the potential of the raw material, in particular tensile.

"If tissue makers start with an inconsistent pulp," continues Omholt, "they have to make more adjustments to the process, such as the degree of refining, and this can affect runnability. It can also affect final product characteristics.

"Our target has been to minimise the post-pulping refining necessary by maximising tensile within the process. The less refining that is necessary to boost tensile, the softer the tissue which can be produced with the pulp. We shall continue to optimize the process with the new expansion."

With the recovery process in place, the key technical aspect of the capacity-expansion project just announced will be the more or less complete rebuild of the existing pulp line.

The specific technology will be announced in due course, but the aims are clear. Hellberg: "We are proud of what we have achieved in terms of quality across all our pulp grades, but that doesn't mean we can sit back. Market expectations are constantly rising in terms of softness and tensile, and we have to be prepared for that. Customers are in a position to choose the best, so any expansion must have quality improvement as a precondition."

The proposed project will allow Södra to set the pace in tissue pulp for the foreseeable future. As chief executive and group president at Södra Lars Idermark says: "This expansion is a vital part of our strategy, and a must if we are to be able to develop our business. Our aim is to become the first choice for customers."

Bellwether of Hungary's economic evolution

A new converting line will give Forest Papir of Hungary a powerful boost for competitiveness and innovation. A TW report.

The uneventful transformation into a market economy which Hungary experienced just over 20 years ago, and subsequent membership of the European Union, is in marked contrast to the dynamism of the many businesses which took shape as a result.

Forest Papir makes the ideal case study for Hungary's economic evolution.

Co-founder and main shareholder Ferenc Bodrogai had worked his way up from machine operator to commercial director in the state-owned enterprise Piszke which supplied 85% of the country's tissue. He left voluntarily when the business was sold to a private investor. "I was certain that I didn't want to deal with paper in the future," says Bodrogai with a self-deprecating smile. He could not ignore the opportunities in tissue, however, and 20 years later, with a group turnover of some 45 million Euros, 80% of which is in tissue, Bodrogai's decision to overcome his initial desire to break free of paper has been thoroughly vindicated.

"When we started in 1994 we had no debts, but nothing else either," says Bodrogai. "All that we had was in our heads."

BUILDING THE BRAND

For the first 10 years, the business was built up with finished tissue products sourced from Italy which were sold in Hungary under the Forest Papir Brand. "We didn't have our own products, but our aim was always to supply to tissue sectors in which we could excel and differentiate ourselves," says Bodrogai.

Since 2000, napkins have played an important part in the story. The proportion of napkins in the tissue market at only 7% is too small to attract the interest of big players, but the

Co-founder Ferenc Bodrogai "When we started in 1994 we had no debts, but nothing else either. All that we had was in our heads" level of innovation required and cost of entry into the market in terms of investment, keeps smaller competitors at bay. By 2004, Forest Papir was already the world leader in one-ply printed napkins. "As far as we know we are still the best producers of printed one-ply napkins in terms of quality," says Bodrogai. Forest's domestic market share for napkins is more than 50%.

Until the latest investment in a new Futura converting line, napkins have accounted for at least 17% of Forest Papir's business and have been strategic in its exports. The new line, which started up in December 2013, is set to change that. The 15,000 new tonnes of annual capacity which it adds to the existing 25,000 tonnes, along with the capability to produce a new level of embossed product will see toilet tissue rise from the current 50% of the company's tissue output to nearer 75%, with a significant proportion of that intended for export.

A WINNING PLY COMBINATION

The two-ply tissue which the line produces features a lower ply made from wastepaper-based tissue while the upper ply uses a virgin pulp tissue. This has helped Forest to achieve the magic combination of better quality while remaining competitive on price.

The line's JOI embossing technology, with its reinvention of point-to-point lamination, means that a uniform nip and lamination is guaranteed at any working pressure without the necessity for adjustments. "The JOI Embosser gives us a high level of flexibility along with high performance and simplicity

Engineering manager József Haraszti checks the quality of the converted tissue from the new line

of operation," says Forest Papir's Deputy engineering manager László Kroer. "The efficiency, reliability and ease of use of the line are its major advantages, which will result in a fast return on investment."

An important benefit from the operator's point of view is the JOI Embosser's observation mode. This allows the embosser to operate in complete safety while operators enter its enclosure to perform adjustments and they can observe the results of their work without stopping the machine.

The rewinder also makes a major contribution to the line's efficiency. Kroer says: "The F1 high efficency rewinder with the Wind & Seal transfer system produces high quality innovative products at a high cycle rate and with remarkable

Forest Papir's 48 big pack

PRODUCT INNOVATION IN PRACTICE

A simple yet perfectly-targeted innovation just hitting the shelves in Hungary is Forest Papir's Forest Kids – a new twist on pocket tissues. The innovation is the packaging. Light a compact, the plastic bag splits neatly in the middle to reveal easily-accessed stacks of tissue. It is ideal for the desktop at home or school, or wherever children might need easy access to tissues. The colourful graphics with a zip image at the split point are just the thing to endear this product to children. A version for women – Forest Joy - with suitably appealing artwork has just been launched.

Forest Kids appeals to children and has a neat packaging solution

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Our company operates in a multimarket enviroment with reliable suppliers in Asia, Latin-America, USA and Europe.

Please send us your inquiries to: sales@globallinksupply.com efficiency as we do not need an external tail sealer."

Moving down the line, Kroer points out another technology which has proved particularly beneficial: "The CUT system with its unique trimming solution removes just 15mm of trim from each end of the roll rather than the standard 25-30mm, so waste reduces from 3% to 1%. This has translated into one extra roll per log – effectively an extra log every minute."

The milestones in Forest Papir's history have been innovations, in the sense both of ideas and technology. In 2005, the company was also the first in Hungary to introduce 24-roll packs of toilet tissue (since then it has pioneered the huge 48-roll version). The same year saw Forest Papir launch a new company in the group called Assist Trend, which sells a complete professional package to complement its away-from-home (AfH) tissue products. It provides a one-stop-shop for the cleaning products, maintenance and training needs which buyers of AfH tissue, from hotels to service stations, need.

Other ventures not directly related to the conversion of tissue products include the launch of a range of convenient but healthy dried foods based on a new technology. These can be bought in supermarkets but there is a strong emphasis on on-line sales via the webshop. Paper products are included free with each purchase in a canny example of cross-selling, and a deliberate strategy to open up a new channel for sales of paper products. The tissue products are also used as a vehicle to promote the new foods.

FOREST PAPIR FACTFILE

11 companies in the group

320 Employees

Turnover approximately 45 million Euros

Eight folding/printing presses for napkins

Five folding lines for handkerchiefs

Three roll products converting lines

FULL CIRCLE

Forest Papir has developed strongly during Hungary's EU membership era, but at the same time as the country joined the EU eight years ago, this visionary company predicted the eventual return to localism and patriotism in the buying habits of Hungarians. Forest Papir therefore pioneered a labelling scheme which promotes products which are produced, or at least processed, in Hungary. The scheme identifies different levels of domestic input, from the entry grade, which requires the product to be converted or processed in Hungary, right up to the top level, which requires the product to be made in Hungary entirely from Hungarian ingredients or materials. The 12 companies which joined the scheme when Forest Papir instigated it have grown to 150.

The common thread throughout the company's development has been the Forest Papir brand. While private label has emerged during the past six years or so, the brand remains the focus and technological and product innovation serve to support and enhance the values the market associates with it.

The new Futura converting line opens up new market opportunities for Forest Papir

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CIDPEX 2014	14 - 16 May 2014	Sichuan, China	www.cnhpia.org
PLMA 2014	20 - 21 May 2014	Amsterdam, Netherlands	www.plmainternational.com
China Paper 2014	15 - 17 September 2014	Beijing, China	www.chinapaperexpo.cn
Tissue World Istanbul	25-26 September 2014	Istanbul, Turkey	www.tissueworld.com
PAP-FOR Russia 2014	28 - 31 October 2014	St. Petersburg, Russia	www.papfor.com
Tissue World Asia	11 - 13 November 2014	Shanghai, China	www.tissueworld.com
ISSA INTERCLEAN 2015	25 - 27 Feb 2015	Mexico City, Mexico	www.issainterclean.com
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What is your company's primary field of business (tick all that apply):

A. INTEGRATED TISSUE PRODUCTS MAKER

Primary business making paper and producing:

☐ Consumer (At Home) Finished products
☐ Away-from-Home (AFH) Finished products
☐ Other Tissue Grades, please specify: ....

B. JUMBO ROLL SUPPLIER

☐ Jumbo Roll Maker, for sale to converters

C. TISSUE CONVERTER

Primary business is converting jumbos and producing:

☐ Consumer Finished products
☐ Away from Home (AFH) Finished products
☐ Other Tissue Grades, please specify: ....

D. RETAILING AND DISTRIBUTION

☐ Retailer
☐ Broker
☐ Distributor

E. SUPPLIER TO THE TISSUE INDUSTRY Please check all that apply:

☐ Paper making machinery
☐ Fabrics, felts, clothing
☐ Drying technologies
☐ Process automation and control
☐ Water treatment, environmental and effluent control
☐ Dust control and air treatment systems
☐ Doctors and creping blades

☐ Deinking
☐ Stock preparation, fiber processing and pulping equipment
☐ Fibers: Market pulp and recycled fiber
☐ Chemicals and chemical technologies

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