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TWM

TISSUE WORLD MAGAZINE

CANADA

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PLUS:

MARKETISSUES

Resolute's first US
purpose-built plant

BREXITISSUES

As Brexit looms UK domestic
tissue suppliers see their chance

BAROMETER ISSUE

Strategies revisited one year on

TECHNICAL THEME

How TW Milan winner LC Paper
achieved 70% energy savings

CONSUMERSPEAK

The tissue essential for
a Best Man's tuxedo

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Cascades Tissue Group: TWM interviews Jean Jobin at the company's Montreal-based site; Canfor Pulp plans for the long term at its Northwood pulp mill.



TWM

TISSUE WORLD MAGAZINE

In this issue

Page

FrontIssues 3

Canada – strengthening its away game.

MarketIssues 4

Resolute ramps up capacity to position itself as key player in tissue. TWM interviews president and chief executive Richard Garneau.

Tissue World São Paulo 2017 5

TWM reports on Southern America's leading tissue trade show.

World News 10

The latest news stories from across the world's towel and tissue industries.

Country Report: Canada 21

Canada – a ten-year T&T capacity retrospective. By Fisher International.

Country Report: Canada 25

Canadian tissue marketplace continues to battle soft demand. By Euromonitor International.

Operation Report: Cascades Tissue Group 28

The new major player determined to keep the personal touch. TWM meets Cascades at its Montreal-based tissue plant to get the latest.

Operation Report: MPI Paper mills 32

MPI Paper Mills – striving to be the industry's premier supply chain solution.

Focus On: Canfor Pulp 34

No 'Country Report' from Canada would be complete without referencing its mighty forests. Canfor Pulp in British Colombia is surrounded by an unrivalled natural resource bound for a bigger share of the global quality premium market. TWM met them.

ConsumerSpeak 41

A Best Man should never be without his 3-ply.

Technical Theme: Environment 43

New OnePly product that "easily competes with TAD and NTT" – LC Paper chief executive Joan Villa talks through the development process which led the independent niche tissue producer to energy savings of up to 70%.

Special Feature: Barometer Issue 47








One year on ... you report back on your progress.

BrexitIssues 52

As Brexit looms UK domestic tissue suppliers see their chance. Poppies' Armindo Marques discusses how he plans to meet the challenges and uncertainties of the pre- and post-Brexit market.

Events Calendar 55

Quick links Page

	F	FrontIssues	03
	M	MarketIssues	04
	W	World News	10
	F	Fisher	21
	E	Euromonitor	25
	T	Technical Theme	43
	B	Special Feature	47
	E	BrexitIssues	52

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Cover: A magnificent grizzly bear next to water in Canada's Acadian Forest.
By PURPLEPRINT Creative

The background of the advertisement is a textured, aged parchment-like surface. It features several hand-drawn geometric diagrams in brown ink, including circles, triangles, and intersecting lines, reminiscent of Leonardo da Vinci's Vitruvian Man. The word 'FORTE' is printed in a bold, dark, sans-serif font in the upper left quadrant. The phrase 'Simply genius' is written in a large, elegant, cursive script in the lower left quadrant. A horizontal line separates the main text from the descriptive paragraph below. The bottom of the page contains three logos: 'www.pcmcitalia.com', 'Paper Converting Machine Company' with a 'PC' logo, and 'bww betterworld' with a 'bww' logo.

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Forte is still the ultimate frontier in the tissue converting machine market, thanks to its absolute simplicity: only 3 magically triangled rolls to ensure perfect rolled tissue products in an easy, clean and reliable way. To quote Leonardo Da Vinci, "*simplicity is the ultimate sophistication*" (where simplicity is the highest level of technological innovation).

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Canada – strengthening its away game

Canada, of course, has a big neighbour. The biggest, in economic terms, which while returning a fluctuating performance is never, currently, less than the biggest economic giant.

In tissue terms, Canada is small scale ... it's a saturated market with retail per capita usage one of the highest in the world. Retail tissue posted volume growth of under 1% to reach 486,000 tonnes in 2016. GDP is just 1.8% this year and growth in disposable income just 0.2%, projected to be just 2% by 2030. Population levels are dropping ... immigration accounts for more than 50% of Canada's population gains. Unmet potential is significantly lacking.

Those facts mould the home demand for tissue products. Now companies are increasingly re-casting the future of their away game.

Canadians – or North Americans as many like to refer to themselves – can point to big statistics and powerful players of their own. Canada's forests are off-the-scale immense. Its rivers flow fast and wide. Its trees are made of strong fibres. Its sustainability record, for the most part, is second to none.

By the time of going to press a US\$64m tissue machine will be rolling or about to roll in Scappoose, Oregon, on the big neighbour's west coast where Cascades's latest phase of an extensive makeover in investment, innovation, modernisation and new products is manifest.

President and chief operating officer Jean Jobin talks impressively of his big company ambition guided by a small company ethos of intimate response. The makeover swept brands away, and now marketing director Andre Daviault talks of an AfH operation completely revamped, and a PRO marketing programme which will be creative, fun and with a cheeky tone: "You have to get creative to sell toilet paper."

Our MarketIssues sees Canadian head-quartered Resolute Forest Products discuss its first purpose built state-of-the-art tissue machine and converting facility in Calhoun, Tennessee, aiming at the ultra premium market.

The impressive Northwood mill in Prince George gives Canfor Pulp a competitive advantage shared by no other. The pulp giant is planning a bigger future in tissue.

Country Report Canada charts where and how performances are growing.

Looking on the bright side of Brexit

Uncertainty in business helps no-one. It could be said that to leave the world's biggest trading bloc of more than 500 million people with plenty of disposable euros and pounds in their pockets without sorting out other trade deals beforehand is about as uncertain as it can get.



*Senior editor,
Tissue World magazine*

But the Brexit vote has happened, and two or more years of wrangling are set in train.

One UK boss is looking on the bright side. Poppies is a leading manufacturer and supplier of high quality digitally printed napkin lines that offer a bespoke, photo quality print on tissue.

Owner and technical manager Armindo Marques sees an opportunity. Since the vote raw material costs have risen by 14%, bad news for Europe's biggest importer of tissue paper as the deals are done in Euros and US dollars. So retailers are now favouring domestic suppliers, he says.

Is there a company which will meet the demand? Step forward Mr Marques.

He explains his strategy in ExitIssues, renamed for this occasion as BrexitIssues.

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Resolute ramps up capacity to position itself as key player in tissue

President and chief executive Richard Garneau provides an update on Resolute Forest Products' ongoing transformation strategy and entry into the growing tissue market. A TWM report



In June 2015, Resolute announced its entry into the tissue market through a major investment in the construction of a state-of-the-art tissue machine and converting facility in Calhoun, Tennessee. In February 2017, the facilities became fully operational and have an annual production capacity of approximately 60,000 metric tonnes of ultra premium bath tissue and towel for the private-label market. At the end of 2015, the company acquired Atlas Tissue (formerly Atlas Paper Holdings), a manufacturer of branded and private-label tissue products for retail and AfH markets. Atlas Tissue has two manufacturing facilities in Florida with an annual production capacity of 56,000 metric tonnes per year across three tissue machines and 11 converting lines. Here, TWM interviews president and chief executive Richard Garneau.

TWM/1 How does entering the tissue market fit into Resolute's overall business strategy?

Garneau: "Since 2011, our corporate strategy has been focused on transforming Resolute into a more sustainable organisation, one that can generate consistent value for shareholders through a competitive portfolio of manufacturing assets and a solid presence in long-term growth markets. This includes, on the one hand, a gradual retreat from certain paper grades and, on the other, using our strong financial position to act on opportunities to diversify and grow.

"With regards to tissue, our objective is to add value by integrating our market pulp into our premium tissue production, particularly as paper utilisation continues its steady decline, effectively mitigating risks associated with volatile market pulp pricing."

TWM/2 What would you say is the company's strategic advantage?

Garneau: "We are a fully integrated manufacturer of quality products and our tissue operations benefit from vertical integration. Our tissue products are manufactured from 100% recycled pulp or from virgin fibre from the company's internal market pulp network. This allows us to control the production process – from material input to final product – ensuring precise control and consistent quality, while offering the flexibility and customisation our customers demand."

TWM/3 What is the status of the Calhoun tissue operation?

Garneau: "Calhoun's first rolls of bath tissue came off one of the mill's newly completed converting lines in August 2016 and the entire converting operation was fully operational at year-end. Our new Calhoun tissue machine is the latest innovation in tissue manufacturing and we successfully began operating during the first quarter of 2017. Ramp-up of production at Calhoun will continue throughout 2017, and we expect to be producing at maximum capacity by mid-2018.

"I should point out that finished tissue products sold from Calhoun are now manufactured entirely from parent rolls produced on-site."

TWM/4 How key are environmentally-friendly products for the company?

Garneau: "We have introduced our Green Heritage premium 100% recycled tissue line for the At-Home market and our hope is to change the way consumers view recycled products. When comparing Green Heritage products to those of our competitors, third-party testing confirmed that our bath tissue is brighter, thicker and stronger than the leading recycled bath tissues on the market. We are proud to offer today's environmentally conscious consumers a first-in-class recycled product. In addition to the new Green Heritage product line, we expanded our Harmony virgin bath tissue and towel line to offer customers a broad range of quality products, including value and premium grades.

"Resolute is well-positioned to become a key player in the North American tissue market. We now offer a full complement of our integrated tissue and towel products. And we believe that customers will be increasingly receptive to our offering."

TISSUE WORLD SÃO PAULO

CONCLUDES ON SUCCESSFUL NOTE ATTRACTING 932 KEY PARTICIPANTS



The South American tissue industry gathered in São Paulo to attend the only key meeting point for the region's growing and dynamic tissue market. TWM reports on some of the key talks from the event's leading conference sessions.

Tissue World São Paulo: second edition attracts key players in growing Southern American tissue market

The South American tissue industry has gathered in São Paulo to attend the only key meeting point for the region's growing and dynamic tissue market. It was the second edition of Tissue World in São Paulo, after the successful launch edition held in 2015.

Some 932 key participants took part in the event including 40 exhibiting companies with 144 exhibiting staff, 493 local visitors, 148 international visitors and 80 conference delegates.

The show was launched to respond to the growing demand for tissue products in South America, a fast-growing market that did not previously have an event dedicated to the tissue industry.

It took place between 31 May – 2 June at the Transamerica Expo Center in one of Brazil's most vibrant financial cities. The trade show offers wide-reaching networking opportunities and a new viewpoint on the region's fast changing tissue market.

Whether on the show floor with the many exhibitors or in the conference with the impressive line-up of expert speakers, participants had the opportunity to network with key industry players and explore the latest technical developments to find out what's changing in the industry and how they can keep their company ahead of the curve.

Tissue World São Paulo included three busy days filled with conference presentations and show visits.

Conference targets potential in Southern American tissue market

Speakers at the Senior Management Symposium kicked off the conference sessions which were themed: 'Challenges and opportunities: Approaches to accelerate the success.'

The sessions discussed the latest opportunities and challenges in Brazil and the surrounding regions.

They were designed to show approaches to accelerate success and discussed micro – and macroeconomic outlooks and perspectives, logistics, trade flows, pulp and sustainability, market opportunities, tax expertise and finished product trends.

The functional and hands-on Technical Sessions followed on 1-2 June and covered the latest and most relevant information and case studies, presented by tissue industry experts.

Conference sessions: SENIOR MANAGEMENT SYMPOSIUM

Pedro Vilas Boas, director Anguti Estatística, Brazil

Tissue made up 12% of Brazil's total paper production in 2016 – an increase of 111% from tissue production in 2000. Packaging/wrapping made up 52%, printing/writing 25%, cardboard 7% and others for the remaining 5%.

Between 2010-2016, while GDP growth was at an all time low of 1.2%, tissue still grew by 5.7%. This compared to a GDP growth of 3.3% between 2000-2009 when tissue grew 4.3%.

Of the 1.262.000 tonnes of tissue produced in Brazil in 2016, domestic sales contributed to 1.254.000 tonnes.

Some 45.8% of tissue factories are located in Sao Paulo and Santa Catarina. The south of Brazil produces 44% at 559.656 tonnes, the northeast produces 44% with 550.320 tonnes, while the north, northwest and midwest produce 12% with 147.646 tonnes.

For paper brands, while 68% of toilet paper products were 1-ply and 32% were 2-ply in 2005, some 44% were 1-ply and 56% 2-ply in 2017.

Outlook for 2017-2018: Growing market with low profitability; constant market share dispute; impact of a powerful new player.

Macroeconomic perspectives: spotlight on Brazil and Latin America

Fernando Camargo, director, investment and corporate finance, LCA Consultores, Brazil

INTERNATIONAL ENVIRONMENT

Pro-Euro French vote outcome: Emmanuel Macron's victory in the French Presidential election (despite record-setting abstention numbers) reduces concerns over the block coming apart. Notwithstanding, Macron will have a huge challenge before him in the sense of securing a congressional majority to put his proposals into practice, as his party was founded just one year ago.

Activity in Europe picking up: leading activity indicators point to the most favourable prospects in six years.

Rising uncertainty in the US: Activity is losing momentum and political uncertainty is on the rise in the second quarter. President Donald Trump has lost popularity and governability after defeats in Congress.

DOMESTIC ENVIRONMENT

Labour Reform with a favourable vote: with 296 votes for (and 177 against), the scoreboard in the Lower House was better than expected and close to the 308 votes needed to pass the Social Security reform.

However, recent corruption accusations involving President Temer had a strong impact and the reforms are now in stand-by; the Temer government struggles to survive.

Presently the most probable outcome of the political crisis is Temer's deposition by mid-June because of accusations of fraudulent campaign financing; Congress should then elect a new president, probably someone that until now supported the present government.

Global outlook: growth picking-up led by manufacturing activity in advanced

By Tissue World senior editor **Helen Morris**

economies, amid high political uncertainty, especially regarding Donald Trump's policies, which is the main risk to this current relatively benign global macroeconomic environment.

Fiscal stimulus could boost US economy in the short-run ... but could also spark inflation – specially if accompanied by protectionism (higher import prices), in a context where the economy is approaching full employment (higher wage growth).

Global outlook: growth to return to a lackluster pace in the medium term.

The Federal Open Market Committee is expected to (moderately) speed-up the pace of monetary normalisation in the 2nd half of 2017 – an event that can weigh on global markets.

US and global economies expected to return to a lackluster growth in the medium term, as monetary stimulus is gradually reversed in most advanced economies.

Latin America underwent a period of significant economic slowdown: exchange rate devaluation, accelerating inflation trend and sharp economic slowdown.

Various shocks were responsible for the deterioration of the Latin American macroeconomic environment: external shocks, such as the USD appreciation and the "Trump-effect" (with a strong impact on Mexico); internal political crises (mainly in Brazil, Venezuela and Argentina); and a sharp commodity devaluation (with particular impact on Colombia, Peru and Chile).

Economic performance in Latin America is expected to remain somewhat subdued, once the outlook for commodity prices is lackluster (due to a slower Chinese demand for industrial inputs; to interest-rate hikes in the US and Europe; and to initiatives aimed at shrinking global liquidity).

Although India is replacing China as the fastest growing Asian economy, the net effect of these economic trends on commodity prices is expected to be modest in the near to medium term.

Besides the lackluster outlook for commodities, fiscal restraint is expected to weigh on Latin American growth in the near to medium term, as many countries



Above: Outlook for 2017-2018 is a growing market with low profitability; Pedro Vila Boas, director at Anguti Estatística delivers his talk

are embarking on a period of fiscal consolidation.

On the other hand, inflation is slowing (helping to improve real income) and monetary conditions are being relaxed (which helps to reactivate the credit spigot) in most Latin American countries (especially in Brazil and Colombia) – a positive for domestic consumption.

All in all, outlook for Latin America points to improving performance in coming years, but growth should remain somewhat subdued, far from the pace of expansion that had been observed until the beginning of this decade.

Favourable external conditions have recently improved the economy's terms of trade, mostly due to commodities' appreciation.

Although President Temer is unpopular, executive branch dominance has been restored in Congress. But renewed political turbulence put structural reforms (social Security, Labour regulations) in standby; Congress should now take more time to approve the reforms and/or will approve less ambitious versions of them.

Brazil: currency appreciation, disinflation and monetary easing.

In these relatively favourable (external and domestic) circumstances, Brazil's market risk assessment has been improving markedly.

Better terms of trade and risk perception, plus high interest rate differential, have induced a significant currency revaluation, rapidly easing inflation pressures

Both inflation and inflation expectations have receded towards target, leaving ample room for monetary easing: policy rate expected to reach a neutral bias (estimated to correspond to a 9% to 10% policy rate) before year-end.

Lower inflation and monetary easing help to explain why confidence is recovering in almost every sector of the economy, despite a still depressed economy, in which resource idleness continues very high – a negative for investments (and, thus, employment).

Brazil: consumption to lead the (somewhat sluggish) recovery.

Besides, lower interest rates should help to clean up consumer's balance sheets

By Tissue World senior editor **Helen Morris**

(once interest payments have become a burden for households in recent years).

Under improving fundamentals, consumption is expected to lead the recovery, that should remain somewhat sluggish in 2017 and pick-up from 2018 onwards.

Resumed growth will come, at first, from household consumption (as a result of decelerating inflation, lower interest rates, increased confidence and the release of R\$ 43 billion in FGTS funds) and exports (more competitive exchange rate and modest world recovery), as well as farming (better weather conditions) and mineral extraction (having overcome the negative effects of Samarco and taking into account a new Vale mine).

High idleness should keep investments low; the big unknown is on the infrastructure front.

Barbara Mattos, Vice President, senior credit officer, Moody's Latin America, Brazil

Global paper and forest products outlook – stable. Operating income growth from packaging and wood products offsets commodity paper decline.

What could change the outlook to negative –

- If consolidated global operating income declined over the next 12-18 months
- Increased input costs that cannot be passed on to customers, or reduced prices as a result of operating capacity in excess of demand for several grades.

Operating earnings of the 46 rated companies will grow 2% – 4%

- North American wood product producers will benefit as US housing starts grow 8%
- Commodity paper producers continue to face 5% demand declines as digital alternatives replace paper.
- Increasing consolidation will reduce some earnings volatility.
- Global GDP (G20) will grow about 3% in 2017.

What could change outlook to positive –

- If consolidated global operating income increased by more than 4% over the next 12-18 months.
- Higher prices across several major grades (such as paper packaging) and regions due to tight demand-supply balance or higher than expected GDP growth.

The industry's global operating income will increase 2%-4% over the next 12 months with operating income growth from paper and forest products producers in North America and Latin America, and from 1% to 3% in Europe.

Global Paper & Forest Products Subsector Outlooks:

Paper packaging and tissue – stable.

Share of consolidated operating income – 50%.

Operating earnings to grow about 2%

- Higher North American paper packaging prices offset by higher recycled fibre

costs and lower tissue prices.

- Packaging demand driven by modest economic pick-up and stable food consumption.
- Tissue demand driven by population growth and improving hygiene standards.

Prices across most grades will increase during the first half of 2017, followed by weakening of prices in the second half as capacity increases outpace demand growth.

- As additional pulp capacity comes on-line, inventory management across the fragmented global pulp industry will remain critical to balancing supply and demand
- Latin American market pulp producers will continue to enjoy structural cost advantages over North American and Western European producers due to their large efficient mills and short tree – harvesting cycles

China's growing paper and tissue production capacity continues to drive pulp demand.

Tissue and hygiene products industry benefits from lower demand volatility compared to other segments.

Retail tissue and hygiene products market still highly concentrated.

Top five producers hold about 65% of total market share in Latin America.

Tissue industry Brazil – growing per capita demand despite economic contraction.

Brazilian tissue and hygiene products industry more competitive than Chile's.

Brazilian tissue market: key trends and opportunities

Elton Morimitsu, research analyst, Euromonitor International, Brazil

Latin American market: Brazil remains the biggest market within tissue. Brazil not necessarily the biggest market in all categories... Informal stalls and taquerias supporting sales of napkins in Mexico; Convenience higher driving sales of paper towel in Peru.



Network potential: People from 64 countries attended Southern America's only dedicated tissue event

By Tissue World senior editor **Helen Morris**



Above: FA Retail's Fernanda Accorsi delivered a talk on trade marketing and retail.

Brazilian tissue market overview in 2016: USD2.3bn.

86% toilet paper; 10% paper towel, 2% facial tissues, 2% paper tableware.

Downgrade in consumer habits to influence forecast period.

Brazilian increasing purchases of premium products up to 2013/14.

Companies are adjusting their portfolios to the new scenario.

AfH market dynamics –

Business-to-business (B2B) transactions are characterised by tighter budgets and less relevance in product differentiation, which encourages establishments to choose cheaper products instead of picking the leading ones.

The main differentiation that manufacturers of AfH tissue and hygiene can provide is their service. Maintenance and delivery time are very significant in B2B negotiations, and therefore the most efficient players have competitive advantages.

Brazilian AfH market overview 2016: USD 597m.

58% AfH paper towel; 27% AfH toilet paper; 12% AfH wipers, 3% AfH paper tableware.

AfH sales continued to post positive growth rates, despite the challenging economic scenario.

Growth rates could have been much stronger if industrial and services demand

were stronger.

Wipers growth sustained by higher surveillance measures.

The National Health Surveillance Agency (ANVISA) determined the increase of usage of disposable wipers – hospitals, industrial kitchens and food service outlets are now obliged to use wipers for cleaning purposes.

The water crisis faced during a couple years ago also helped pushing sales up.

Brazil still offers plenty of room to grow.

Focus on increasing penetration of existing categories....

... And expanding new products and features.

Tissue retailer and consumer insights, consumer purchasing patterns

Marco Aurélio Lime, business relationship director GfK, Brazil

Purchasing patterns of the current consumer: do more.. with the same.

2017 challenges – higher efficiency, increased profit, margins.

Consumer – new habits? Space for launchings? New products?

Brazilian consumer –

Had to stop and think of WHAT and HOW they bought and consumed; Adapted to the new reality. Tried new channels,

new brands, new products and new usages... Acquired a more reasoned and critical attitude

Brazilian crisis has negatively impacted consumer confidence. Over the last five years, economic concerns have increased

Percentage of online activities related to the purchasing process:

78% – browse the best price. 66% – find the desired product and services. 66% – buy a product or service. 64% – search for information on products/services. 54% – see options. 30% – use social networks to exchange information.

Online price comparisons empower the consumer.

Purchase behaviours have changed. From 1/3 in 2015 to nearly half in 2017 of people have stopped buying some categories, such as beer, soda and bleach and soy bean oil. What are the behaviour changes in times of crisis?

Purchase smaller packaging. Purchase only in case of special offer. Split the purchase

Purchase at lower frequency

Purchase smaller packaging Purchase only in case of special offer Split the purchase between brands they used to buy and other cheaper brands Shift to a more affordable/cheaper brand Change the purchase place to supermarkets offering cheaper prices.

Prepare your company for new times.

What has changed for toilet paper?

Change of Brand and Channel Special Offer drives the purchase – even more intensely.

The crisis has brought changes to brands in some categories.

In short –

1. Are our companies adapting to the new business dynamics of the post – CRISIS?
2. In what extent does the consumer consider your product relevant, or may replace your product with another, or even change the category?
3. What are the trends of our products and the most relevant channels?

MEXICO

Fabricas de Papel Potosi boosts capacity with converting investment

Mexico's Fabricas de Papel Potosi has invested in its bathroom tissue production capacity after acquiring a Gambini-supplied converting line. The FLEX 600 line has a rollface width of 2.9m and a production speed of 600m/min, and will be supplied at the end of June with start-up expected for August 2017. The line will produce 2 ply bathroom tissue rolls, 200 - 600 sheets, and 2 ply kitchen roll, 50 - 110 sheets. The products are also manufactured for third parties as well as its own brands, Perla and Hogar. In 2015, the company installed its first Gambini-supplied converting line for the production of bathroom tissue and kitchen towel. According to Gambini, the new line will enable the company to increase its

efficiency process with quick steel roll changes and set up of embosser through HMI, as well as the performance of the line, the quality of the rolls produced: new kind of embossing patterns and better embossing quality.

Fábricas de Papel Potosi is based in San Luis Potosi, Mexico, and has over 30 years of experience in the production and converting of tissue paper and paper products, mainly toilet paper, white and printed napkins and AfH rolls. It produces consumer products such as toilet paper and napkins for the medium and popular segments of the Mexican market, while also producing printed napkins designed specifically for the promotional purposes and advertising of clients in HORECA industries, airlines and sports clubs industries and others. The line has been installed to enhance the production employing innovative machinery, which will guarantee to produce products enable to comply with the newest trends in bathroom tissue and kitchen rolls market.

EL SALVADOR

Alas Dorada boosts capacity with TM investment

Alas Dorada is to increase its capacity and production efficiency after signing up Valmet to rebuild its PM4.

The main target for the rebuild is to raise production capacity by increasing press dryness, and enable improved paper quality as a second stage.

This will be achieved by installation of an Advantage ViscoNip press combined with an Advantage ReDry web heater.

Start-up of the rebuilt machine is scheduled for end of the year 2017.

Delivery includes a replacement of a current suction press roll with an Advantage ViscoNip press for increased production, improved product quality and decreased energy consumption.

A new Advantage ReDry web heater will further enhance the targets by utilizing exhaust air and humidity from the hood, to heat the web and thereby increase post pressure consistency.

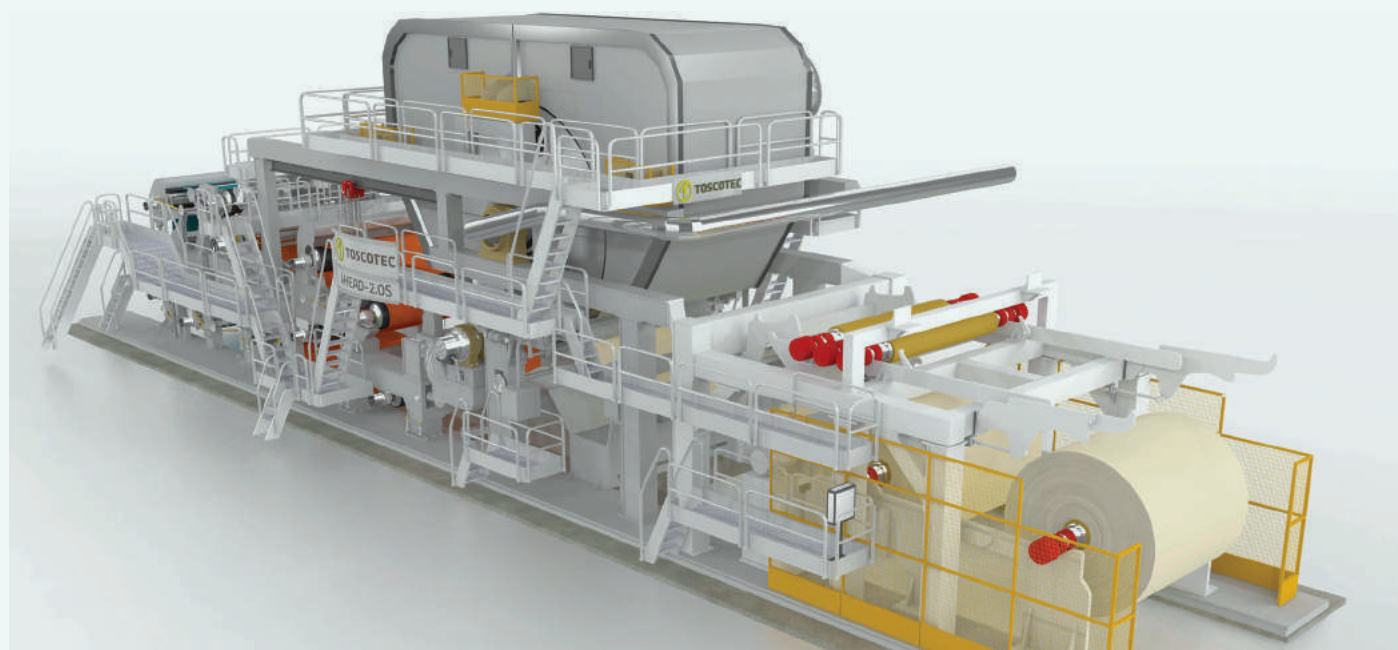
Alas Doradas is one of the three main manufacturers of tissue paper in Central America, producing toilet paper in single ply and double ply, paper napkins and kitchen towels.

Mexico's Fabricas de Papel Potosi has invested in its bathroom tissue production capacity after acquiring a Gambini-supplied converting line. The FLEX 600 line has a rollface width of 2.9m and a production speed of 600m/min, and will be supplied at the end of June with start-up expected for August 2017.



Bathroom tissue boost: New Gambini-supplied converting line at Fábricas de Papel Potosi's San Luis Potosi site

PORTUGAL



The AHEAD TM1: Bound for Paper Prime's Vila Velha de Rodão site

Paper Prime invests with new TM

Paper Prime has boosted its capacity after investing in a Toscotec-supplied AHEAD tissue machine.

TM1 will be installed at the company's Vila Velha de Rodão site. Included in the investment is a stock preparation plant for dry virgin pulp, an AHEAD-2.0S tissue machine with Steel Yankee Dryer TT SYD-16FT, machine auxiliaries including Milltech's Gas fired Hood and steam and condensate and dust removal system. Located in Lousã, Portugal, Paper Prime's parent company

Trevipapel also has two converting plants located in the centre of the country, converting 20,000tpy and serving the internal market and exporting its Joker brand of products to Spain, central Europe, Africa and South America.

Established in 1999, Trevipapel has grown from a small private company into one of the leading manufacturers of professional hygiene products in the AfH sector in Portugal.

CHINA

Baoding Zeyu moves into tissue with TM build in Hebei, China

Baoding Zeyu Paper has ordered a new 25,000tpy tissue machine for its sole mill in Baoding city.

The unit is scheduled to start up by May next year and will be provided by domestic supplier Weifang Hicredit Machinery.

It has a width of 3.55m and a design speed of 1,300 m/min, and features a Steel Yankee drying cylinder with a diameter of 15 feet.

The TM will be fed with 100% virgin wood pulp sourced from the market.

It is Baoding Zeyu's first foray into the tissue sector.

Currently a regional producer of recycled packaging board, the company operates two recycled fluting machines and a coreboard production line with a combined capacity of around 200,000tpy.

Lee & Man starts up tissue machine in Jiangxi

Lee & Man Paper Manufacturing started trial runs on a new 60,000tpy tissue

machine earlier this month at its mill in Jiujiang city, in the inland province of Jiangxi, China.

Supplied by Voith, TM9 has a trim width of 5.6m and a design speed of 2,000m/min. It is the first tissue unit to have come on stream at the site.

An identical machine, TM10, is gearing up for start-up there in June.

The Hong Kong-listed company also runs eight tissue paper production lines with a combined capacity of 390,000tpy at its facility in Chongqing municipality, southwestern China.

According to the updated tissue expansion plan, it will commission a total of six TMs in 2017.

Apart from the two at Jiujiang mill, the company is erecting a pair of Voith-supplied 60,000tpy units at the company's Hongmei plant in Dongguan city, Guangdong province.

They are expected to commence production by the end of the year, a company source told PPI Asia.

Two 60,000tpy, 5.6m wide TMs, provided by Valmet, are under construction at the

Lee & Man Paper Manufacturing started trial runs on a new 60,000tpy tissue machine earlier this month at its mill in Jiujiang city, in the inland province of Jiangxi, China. Supplied by Voith, TM9 has a trim width of 5.6m and a design speed of 2,000m/min. It is the first tissue unit to have come on stream at the site.

Constellation



THE CONSTELLATION EFFECT

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Chongqing mill.

The total tissue capacity of the company will be boosted to 750,000tpy when all the new lines are fired up.

New container BM in Jiangxi: Already the second largest recycled containerboard producer in China, Lee & Man is installing a new BM for the grade at its Jiujiang mill in Jiangxi province.

Dubbed PM 21, the 400,000tpy Valmet machine is scheduled for start-up by October.

The firm had previously pencilled in an August start.

Currently the plant operates a 320,000tpy recycled containerboard unit, which was brought online in 2013.

News from www.risiinfo.com

Mancheng Jinguang starts up two TMs in Baoding

Mancheng Jinguang Paper fired up two 12,000tpy tissue machines earlier this month at its sole mill in Baoding city, Hebei province, China.

The units, dubbed PM3 and PM4, were kicked into trial runs on 4 May and 13 May respectively.

Provided by domestic supplier Baotuo Paper Machinery Engineering, each of them has a trim width of 2.86m and a design speed of 800m/min.

Besides the new lines, the company also runs several smaller tissue machines with a combined capacity of around 18,000tpy.

News from www.risiinfo.com

Hengan starts new 60,000tpy TM in Chongqing

Hengan International has fired up a new 60,000tpy tissue machine at its mill in Chongqing municipality, southwestern China.

The Andritz-supplied PM23 has a trim width of 5.6m, a design speed of 2,000m/min, and also features a 18-foot Steel Yankee dryer.

It is the fourth machine to have recently come on stream at the site. An identical line started trial runs in March.

The first two units were also provided by Andritz and were commissioned in 2012.

Already the second largest tissue producer in the country, Hengan is still expanding, with an eye to increasing its total capacity to 1.43m tpy by year's end or the first half of 2018.

Two small producers in Baoding city, Hebei province, have recently purchased new tissue machines from domestic supplier Baotuo Paper Machinery. Mancheng Yongxing Paper has placed orders for two 20,000tpy TMs, each with a width of 3.55m and a design speed of 1,100m/min. They are due to come on stream in early 2018.

The start-ups have boosted the total tissue capacity at the Chongqing facility to 240,000tpy.

Hengan currently boasts an entire tissue capacity of approximately 1.26m tpy, with five tissue paper mills operating across China.

Already the second largest tissue producer in the country, it is still expanding, with an eye to increasing its total capacity to 1.43m tpy by year's end or the first half of 2018.

Two 60,000tpy Valmet-supplied TMs are destined for installation at an existing mill in Weifang city, Shandong province. The company is also constructing a new plant in Changji, in the Xinjiang autonomous region.

Two Toscotec tissue machines – each able to produce 20,000-25,000tpy – are scheduled to come online by the end of this year.

Last month the Hong Kong-listed hygiene products giant published its annual report for the year ending December.

It reported a 3.3% uptick in its revenue to RMB 19.3bn last year, while its net profit rose by 7.4% year-on-year to RMB 3.5bn.

Revenue from its tissue paper segment increased by 4.3% to RMB 9.1bn, accounting for 47% of the company's total turnover.

The gross profit margin for its tissue business climbed slightly from 35.6% in 2015 to 37.9% in 2016 due to the lower price for wood pulp.

News from www.risiinfo.com

Baotuo Paper Machinery supplying Baoding firms with TMs

Two small producers in Baoding city, Hebei province, have recently purchased new tissue machines from domestic supplier Baotuo Paper Machinery.

Mancheng Yongxing Paper has placed orders for two 20,000tpy TMs, each with a width of 3.55m and a design speed of 1,100m/min.

They are due to come on stream in early 2018.

With that, the company's total tissue capacity will triple to around 60,000tpy. Elsewhere, another tissue maker in the city, Mancheng Yongli Paper, has ordered a new tissue production line from the same supplier.

The unit has a width of 2.86m and a design speed of 900m/min and is able to churn out around 12,000tpy. Start-up is also scheduled for early 2018.

News from www.risiinfo.com

Ningxia Jiamei gets two new TMs for mill in Wuzhong, Ningxia

Ningxia Jiamei Paper will install two new 20,000tpy tissue machines at its mill in Wuzhong city, in northwest China's Ningxia autonomous region.

The producer has placed orders for the production lines from Guangdong Baotuo Science and Technology, a newly formed company created by Chinese supplier Baotuo Paper Machinery Engineering.

Guangdong Baotuo has recently acquired Liaoyang Allideas Papertech, a paper machinery supplier based in Liaoyang city, China's northern province of Liaoning.

The TMs, each having a trim width of 3.55m and a design speed of 1,300m/min, are scheduled to come on stream by the end of this year.

According to a contact from Ningxia Jiamei, currently the Wuzhong facility can convert 35,000tpy of tissue into finished products.

It sources some of the jumbo rolls from a plant in the nearby city of Qingtongxia where an affiliate company produces tissue furnished with wood and bamboo pulp on four small TMs with a combined capacity of around 15,000tpy.

News from www.risiinfo.com



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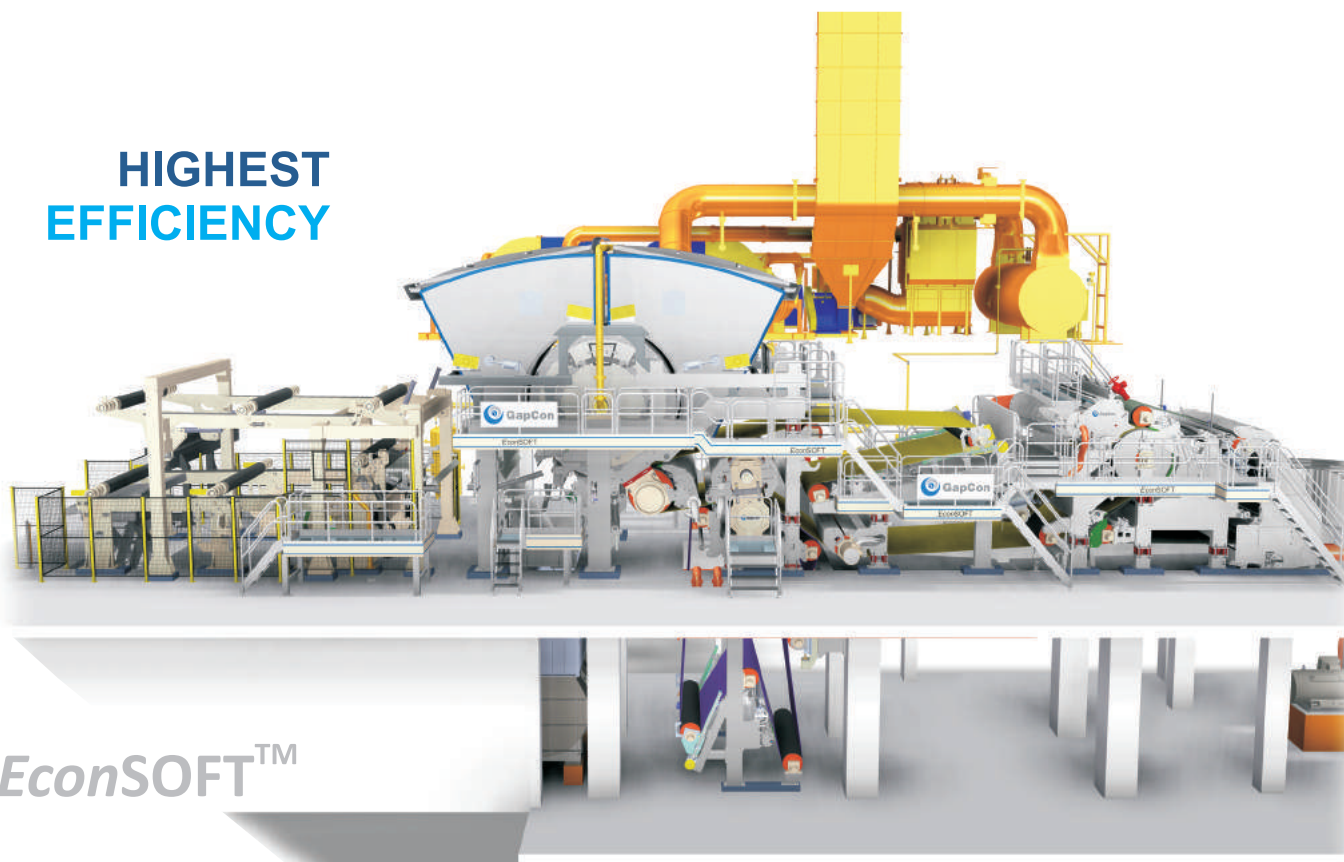


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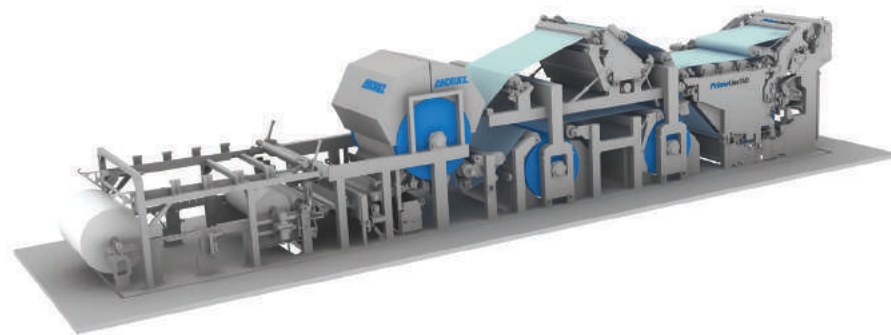
GP invests \$400m in consumer business; funding approved for TAD line

Georgia-Pacific (GP) is to boost its private label branded capacity with a \$400m investment in its GP Consumer (retail) tissue and towel business. Funding has been approved for a through-air-dried (TAD) paper machine, converting equipment and infrastructure work.

The investment will be made in the eastern United States, although a final decision on the location is yet to be announced.

Start-up is projected for 2019 and will support further growth for customers' private label brand products.

Fernando González, president, GP Consumer business, said: "This investment demonstrates our commitment to GP Consumer's current and potential customers who plan to grow their premium private label towel brands, as well as to expand GP's own Brawny premium paper towel brand."



Premium boost: First Quality Tissue invests in its TAD production process

First Quality boosts capacity with 70,000tpy TAD investment

America's First Quality Tissue has invested in an Andritz-supplied PrimeLineTAD tissue line with complete stock preparation for its mill in Lock Haven.

Start-up is scheduled for 2019 and once up and running the TAD tissue machine has a capacity of around 70,000tpy.

Andritz said the machine "will improve softness, absorbency, and bulk

South Carolina-based Sun Paper has invested in its packaging facilities after purchasing a XF800 wrapper line from PCMC. It will be installed in October 2017 and is replacing a reciprocating wrapper that was a bottleneck on one of Sun Paper's existing winder lines.

generated by the TAD technology". First Quality Tissue markets its products under the brand name "Plenty™" and it is one of the world's leading private label producers of TAD premium quality tissue and towel products.

It currently operates five tissue machines in the USA (two at Lock Haven, Pennsylvania and three at Anderson, South Carolina).

Sun Paper boosts packaging capacity with investment

South Carolina-based Sun Paper has invested in its packaging facilities after purchasing a XF800 wrapper line from PCMC.

It will be installed in October 2017 and is replacing a reciprocating wrapper that was a bottleneck on one of Sun Paper's existing winder lines.

products manufacturer based in Duncan, South Carolina.

Its main focus is on private label bath tissue, kitchen towels, napkins and facial tissue.

EUROPE / EMEA

Solenis announces price hike for wet strength and sizing product lines

Speciality chemicals producer Solenis is to increase its prices on all wet strength and sizing product lines across Europe, Middle East and Africa (EMEA).

The hike will see prices increase by 10 – 20% on all wet strength and sizing product lines across the EMEA region, effective immediately or as customer contracts allow.

The company said that the price increase was necessary "due to the significant increase in key raw material costs".

Jose Santolaya, product director, functional chemicals, pulp and paper, said: "We are unable to absorb the impact of the increased costs that we are currently experiencing but we will continue to work in partnership with our customers to help mitigate the increases."

Mercer has increased its NBSK prices in Europe to \$910/tonne

Mercer International has raised its price for northern bleached softwood kraft (NBSK) pulp in Europe to \$910/tonne for deliveries from 1 June.

The company attributed the decision to well-balanced global pulp inventories and solid demand which it said was driving pricing developments in both North America and Asia.

Mercer is the third NBSK producer known to have announced a price increase to \$910/tonne for June deliveries, joining Metsä Fibre and Södra.

News from www.risiinfo.com

The XF800 wrapper features a continuous motion design, flexible layout options and motorized adjustments for fast initial pack setup. With an optional fifth infeed lane and third level, it can be used for a variety of packaging projects.

Joe Salgado, executive vice president at Sun Paper, said: "PCMC's continuous flow technology gives us increased throughput on a broad range of products from a single machine.

"We're also excited about the improved change repeatability and the simpler operating system that the line provides." Sun Paper is a family-owned consumer



\$100m opening: The inauguration of Hayat Kimya's diaper and tissue plant in Agbara, with Hayat officials and plant staff.

NIGERIA

Hayat Kimya inaugurates its Nigerian diaper and tissue factory; launches Familia and Papia brands into the market

Turkey's Hayat Kimya has further boosted its geographical presence after it inaugurated its \$100m diaper and tissue plant in Agbara, Nigeria.

In attendance at the inauguration held in May was the vice president of the Federal Republic of Nigeria, Yemi Osinbajo.

Hayat Kimya manufactures high quality consumer goods in detergents, hygiene and tissue categories.

It entered into the Nigeria market in 2015 with its flagship diaper brand Molfix. It has also invested \$100m to manufacture Molfix diapers and Papia Familia tissues at the factory in Agbara. The factory is based on 200,000sqm land and has a diaper production capacity of 1.3bn tpy and a tissue capacity of 13,00tpy.

The factory generates its own energy, a total of 14.2 megawatt.

Hayat Kimya has 14 production sites

around the world and the company's first major investment in sub Saharan Africa is in Nigeria.

The Nigerian diaper and tissue factory is currently ranked as the most modern Hayat plant in the world.

Following the success of its flagship diaper brand Molfix, Hayat Kimya introduced its two leading tissue brands - Familia and Papia - at an event.

The inaugurated factory in Agbara will produce the flagship products Molfix baby diapers, Familia family tissues and Papia luxury tissues.

Products from the factory will serve the West and Central African market and augment company's North African factories where necessary.

Hayat Kimya chief executive Avni Kigili said: "As a foreign investor, Hayat Kimya believes in Nigeria.

"We are ready to contribute to Nigeria's

growth by positioning her as a business hub and we will continue to invest at full speed in order to offer superior and accessible products here."

Additionally, the company has launched two new tissue brands into the Nigerian market today – Familia and Papia.

Hayat Kimya has operated in the FMCG industry since 1987 and manufactures goods in hygiene, tissue and home care categories under brands Bingo (home care – detergents and home cleaning), Molfix & Molped (hygiene – baby diapers, sanitary pads) Papia, Familia, Focus & Teno (tissue – handkerchiefs, napkins, toilet papers, paper towels), finally Joly and Evony (hygiene – adult diapers).

Headquartered in Turkey, it has subsidiaries in Iran, Egypt, Bulgaria, Algeria, Morocco, Russia and Nigeria.

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NETHERLANDS

WEPA targets European AfH market with Van Houtum acquisition

WEPA Hygieneprodukte is to boost its AfH capacity in Europe with the acquisition of Netherlands-based Van Houtum Group Holding.

The purchase is subject to the approval of the competition authorities and is expected to be concluded over the coming weeks for an undisclosed sum. Headquartered in Swalmen and with a turnover of €60m, Van Houtum employs 200 staff and manufactures tissue products including the Satino Black brand for the AfH market.

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WEPA Group chief executive Martin Kregel said: "We are looking forward to further develop Van Houtum, an AfH-specialist rooted in tradition.

"The values of the family business are very similar and the product ranges complement each other well.

"WEPA intends to expand the Satino brand and the company's current private label offering, especially from the specialised AfH-locations in Müschede, Piechowice and Swalmen, as well as to offer from a single source."

Henk van Houtum, owner of Van Houtum, said: "I am very pleased that our family business is moving into good hands in this way", while managing director Bas Gehlen said: "I am convinced that the company Van Houtum and the Satino brand have a better perspective in the WEPA Group than today as an independent company."

The WEPA Group is one of the three largest providers in the European tissue market, with over 3,000 employees and a turnover of approximately €1bn.

The takeover turns the company into a major player in the AfH sector, with a turnover of over €180m.

GLOBAL

Cascades 1Q margins impacted; results in the near-term to benefit from price increases

Cascades has said higher raw material prices, lower jumbo roll sales and new facility construction investments have impacted its first quarter 2017 results. Sales were stable at \$1,006m compared to \$1,003m in Q1 2016, while operating income of \$31m was down compared to \$73 million in Q1 2016.

Margins were impacted by short-term initiatives and timing mismatch ahead of implementation of announced price increases.

President and chief executive Mario Plourde said: "Our first quarter results were hampered by several short-term elements, namely higher raw material prices, our product repositioning and new facility construction initiatives in our Tissue Papers segment, and the ongoing implementation of our ERP platform.

"That said, our packaging operations executed well in the first quarter, with all three divisions delivering improvements in total shipments and capacity utilisation rates on both a sequential and year-over-year basis."

He added that regarding the company's tissue activities, first quarter results "were lower on both a sequential and year-over-year basis".

"This performance reflects higher raw material costs, lower jumbo roll sales in the slower first quarter, ongoing costs

associated with our new West Coast USA conversion facility and marketing costs linked to recent product re-branding and repositioning.

"Finally, costs related to our ERP implementation and internal business process optimisations increased significantly on a year-over-year basis and marginally when compared to the previous quarter. These initiatives are progressing well, and we remain focused on finalising them by the end of the year."

Total net debt levels increased by 6% or \$85m sequentially.

Plourde said he expected results in the near-term to benefit from recent price increases, declining raw material costs, improving market fundamentals in Europe and stronger seasonal trends characteristic to both the Containerboard and Tissue activities.

Results in Europe are expected to reflect more favourable market dynamics that have materialised since the beginning of 2017.

PAPCEL boosts presence with PMT Italia acquisition; expands its reach across USA and China

PAPCEL has completed the acquisition of Pinerolo-based company PMT Italia, helping it expand its presence in the USA and China.

PMT is a manufacturer and specialist in the supplies of technology for the production of graphic papers and packaging paper grades. By merging with PMT, the number of employees has increased by more than 70 for the whole group.

It is a specialist in the supplies of machines with width over 5,000mm. Over the last decade, the company has built more than 20 new paper machines and has carried out more than 100 refurbishments.

This year PAPCEL expects to exceed revenues of over two billion CZK for the entire group of companies.

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SCA reports 1Q EBITDA decrease of 2%; 5% net sales increase

SCA has reported an EBITDA decreased of 2% to SEK 797m in its first quarter 2017 interim results.

Net sales increased 5% to SEK 3,969m compared to the same time a year ago, while operating profit decreased 7% to SEK 498m.

Net sales for the group's hygiene business for the first quarter of 2017 rose 4.2% compared with the corresponding period a year ago.

Organic sales increased 1.0%. Organic sales increased 5.2% in emerging markets, which accounted for 36% of net sales and decreased 0.9% in mature markets.

Higher energy and raw material costs had a negative effect on earnings.

On 3 April 2017, the group completed the acquisition of BSN medical, a leading medical solutions company that will be included in the Group's hygiene business.

On 5 April, SCA decided to split SCA into two listed companies, the forest products company SCA and hygiene company Essity.

SCA will continue to operate as a forest products company that will include the forest products operations and all forest land currently owned by the group.

Its hygiene business, including the current business areas of Personal Care (including the recently acquired BSN medical) and Tissue will become a leading global hygiene and health company operating under the name Essity.

The split will be carried out no later than in the second half of 2017.

On 5 April, SCA decided to split SCA into two listed companies, the forest products company SCA and hygiene company Essity. SCA will continue to operate as a forest products company that will include the forest products operations and all forest land currently owned by the group.

In addition to their existing shareholding, SCA's shareholders will also receive shares in the newly listed hygiene and health company Essity in connection with the listing.

Magnus Groth, currently president and chief executive of SCA and future president and chief executive of the new hygiene and health company Essity: "This will increase value for shareholders in the long-term through increased focus, customer value, development opportunities and enables each company to successfully realise its strategies."

The company said that synergies between the operations have diminished over time.

Following the split, Essity will be a global hygiene and health company that develops, produces and sells personal care and tissue products.

With the acquisition of BSN medical, a leading medical solutions company, Essity strengthened its capabilities in the health sector.

Increased value for shareholders in the long-term:
SCA president and chief executive Magnus Groth

K-C reports 1Q earnings growth despite "a challenging environment"

Kimberly-Clark Corporation has reported net sales even with a year earlier at \$4.5bn in its first quarter 2017 results.

Operating profit for the quarter was \$834m in 2017 compared to \$804m a year earlier. Organic sales were down 3% in North American consumer products while organic sales increased 4% in developing and emerging markets.

Full-year 2017 net sales are expected to increase 1 – 2%, with organic sales up 1 – 2% and currency exchange rates neutral overall.

Thomas J. Falk, chairman and chief executive, said: "We delivered earnings growth in the first quarter despite a challenging environment, particularly in North America.

"We also achieved \$110m of cost savings and improved our margins. We are confirming our bottom-line earnings growth range for 2017. The outlook for currencies has improved,

while commodity inflation has picked up somewhat and category growth continues to be relatively modest."

At Kimberly-Clark de Mexico, results were impacted by a weaker Mexican peso and higher input costs, partially offset by benefits from organic sales growth and cost savings.

For the first quarter business segment results, first quarter sales for personal care were \$2.3bn, an increase of 2%. Volumes increased 2% while net selling prices fell 2%.

In the consumer tissue segment, first quarter sales of \$1.5bn decreased 3%. Volumes fell 2% and net selling prices were off 1%.

First quarter operating profit of \$275m decreased 2%. The company said it was impacted by lower net selling prices and volumes.

Sales in North America decreased 6% as volumes were down approximately 7%. The decline was mostly in bathroom tissue, including impacts from competitive activity and lower promotion shipments. Sales in developing and emerging markets increased 6%. Sales in developed markets outside North



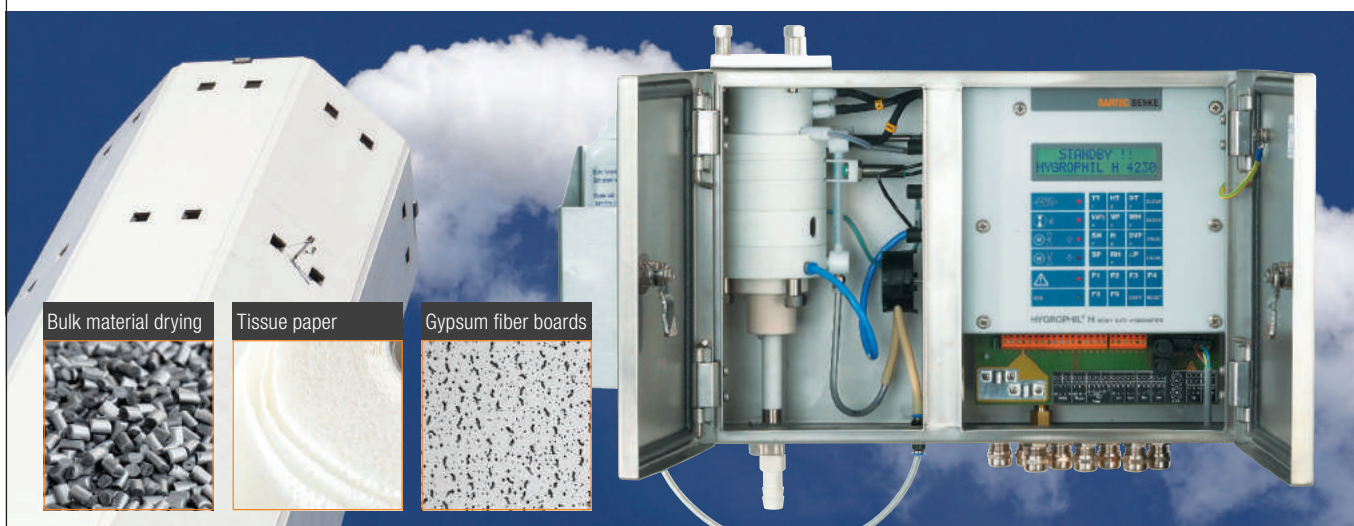
Thomas J. Falk: Earnings growth despite a challenging environment

America decreased 2%.

Changes in currency rates reduced sales 4%, volumes improved 4% primarily in Western/Central Europe, while the combined impact of changes in net selling prices and product mix lowered sales 2%.

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Canada – a ten-year T&T capacity retrospective

C F

Bill Burns

Senior consultant,
Fisher International

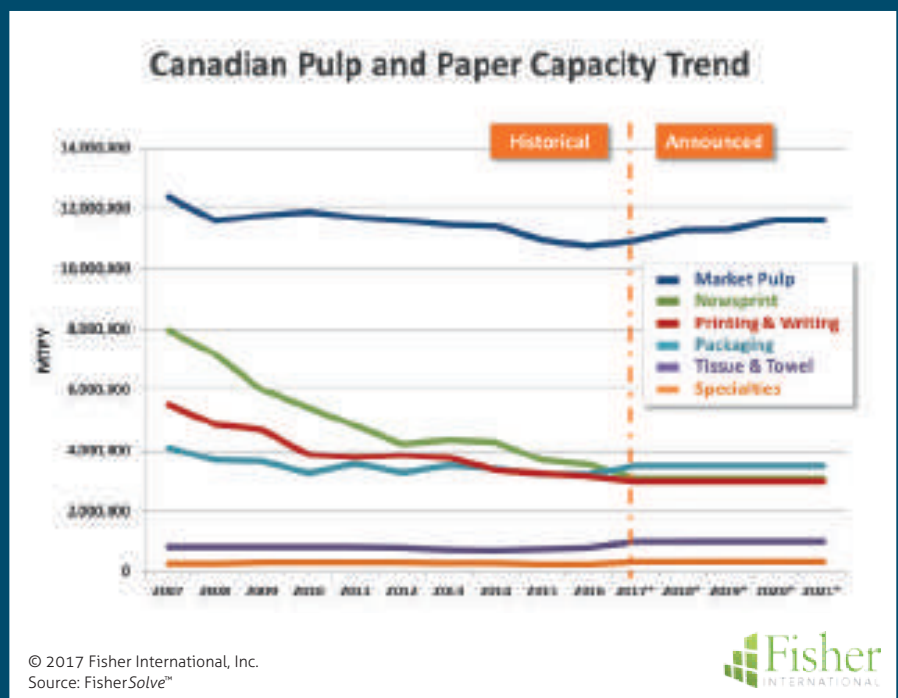
Over the past ten years (2007-2017) the pulp and paper industry has experienced a market shake up. Grades like Newsprint and Printing & Writing have lost significant user base as electronic media gains in acceptance and popularity. The capacity trend for these two grades indicates a whopping negative cumulative average growth rate (CAGR) of -5.8% for Newsprint and -1.7% for Printing & Writing grades.

Not all grades have been caught up in this shake up. Market Pulp, Packaging, Specialties and Tissue & Towel (T&T) have positive growth trends.

Over the past ten years, T&T has seen the most growth with a CAGR at 5.49% followed by Packaging at 3.64%. Canada's pulp and paper industry is a little bleak compared to high-growth regions but not unlike the global picture.

In Canada, all grades show negative CAGRs for the ten-year period with Newsprint capacity shrinking at -8.59% per year followed by Printing & Writing at -6.02%. Tissue & Towel is the least negatively impacted with a CAGR of -0.44% (Figure 1).

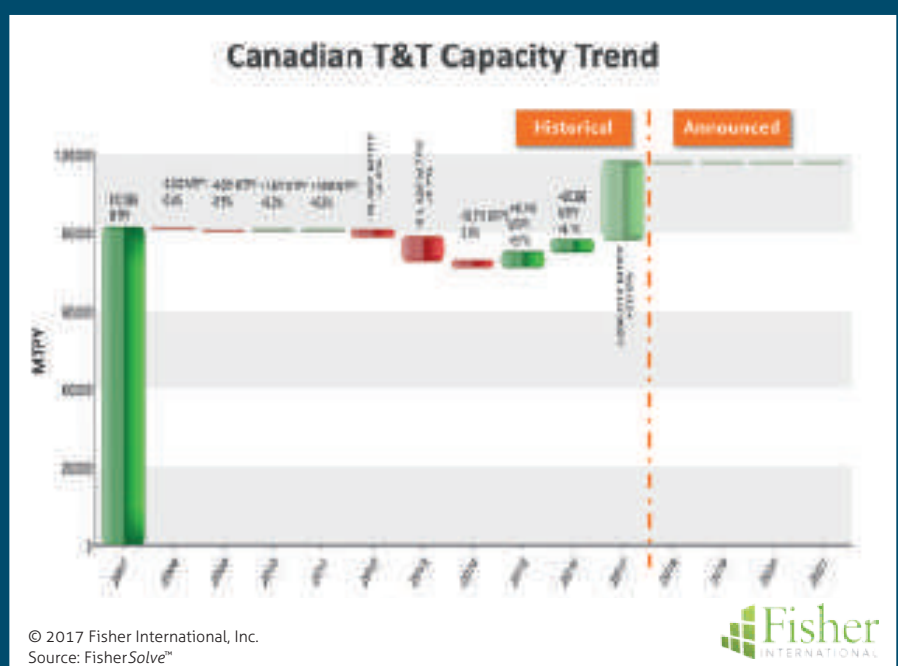
Canada's pulp and paper industry is a little bleak compared to high-growth regions but not unlike the global picture. In Canada, all grades show negative CAGRs for the ten-year period with Newsprint capacity shrinking at -8.59% per year followed by Printing & Writing at -6.02%.



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Figure 1: Canadian pulp and paper capacity trend.



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Figure 2: Canadian T&T capacity trend.

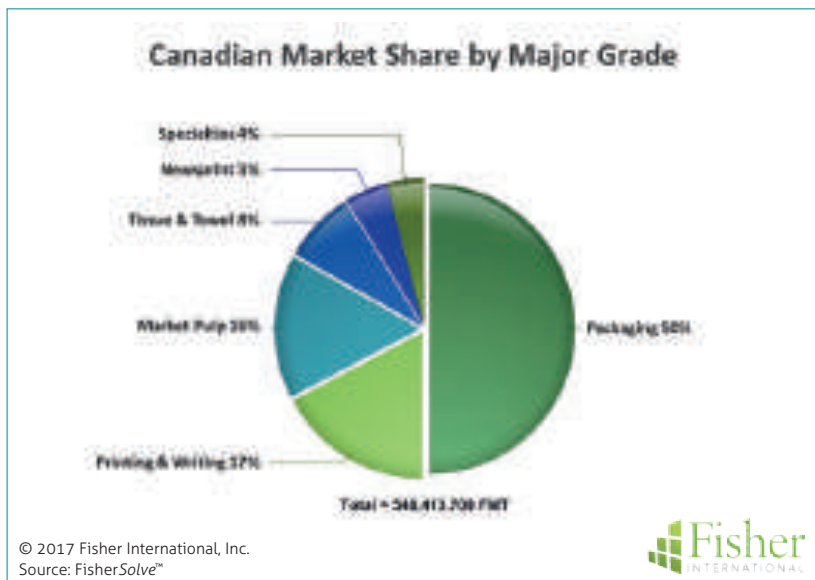


Figure 3: Canadian market share by major grade.

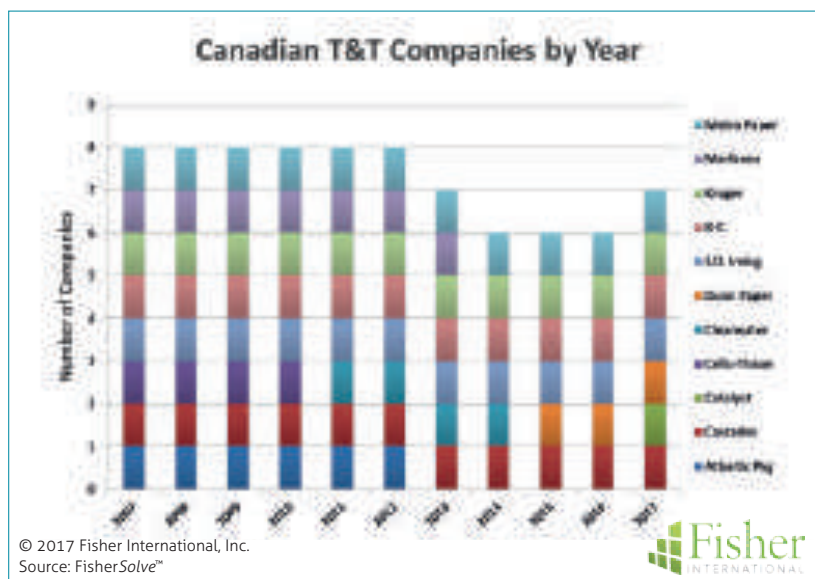


Figure 4: Canadian T&T companies by year.

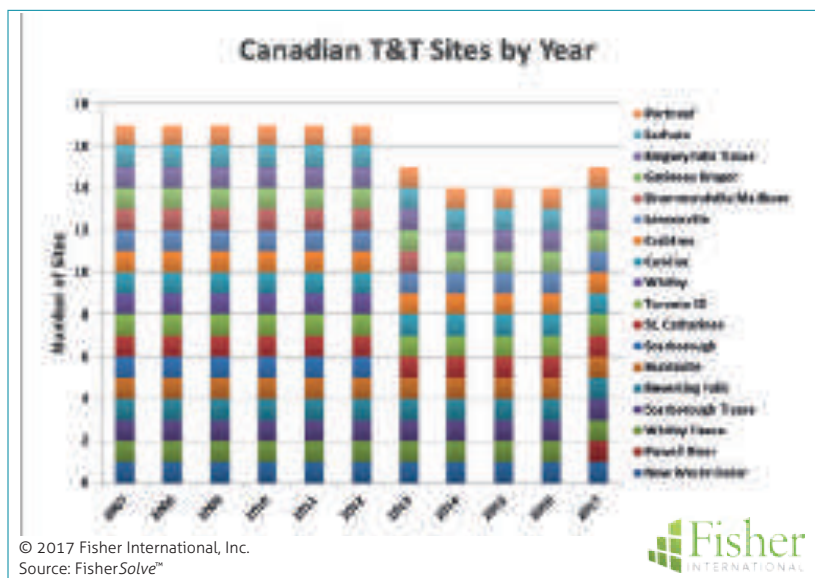


Figure 5: Canadian T&T sites by year.

The decline leveled and started to reverse at the end of 2014 resulting in a modest growth in 2015 and 2016. A significant Printing & Writing machine rebuild is entering the T&T market which will complete the recovery and add about 15% above the pre-2012 baseline.

Focusing on Canadian T&T capacity trends, we can see disconnects with the global trend. Canada T&T capacity was stagnant for the first years of the ten-year period while globally, T&T capacity was on a steady increase. For three years starting in 2012 the Canadian T&T capacity went into a decline giving up more than 10%.

The decline leveled and started to reverse at the end of 2014 resulting in a modest growth in 2015 and 2016. A significant Printing & Writing machine rebuild is entering the T&T market which will complete the recovery and add about 15% above the pre-2012 baseline (Figure 2). Although this rebuild is significant for T&T, at 8% of the total Canadian pulp and paper market, it will do little to offset the overall declining trend (Figure 3).

Looking closer at the changes over the past ten years, in 2007 eight companies made up the Canadian T&T market. In 2012 there were still eight companies, however ownership changed hands with one of the eight. After 2012, there was a decline in Canadian capacity. By 2014, the decline was over and there were two less companies leaving the count at six (Figure 4).

After 2014 there were a couple more ownership changes and a new entry going into 2017. As expected, this pattern is evident at the sites and line levels too (Figures 5 and 6).

Despite shrinking in overall capacity, there have been some pockets of positive change. There were two major and a couple of minor rebuilds during the ten-year window under review. Both major rebuilds involved converting from conventional tissue making in the realm of Advanced Technology.

One of the machines went the TAD (Through Air Drying) route while the other did an extensive rebuild to the Voith ATMOS process. The ATMOS rebuild took a 25+ age machine and brought

The newest Advanced machine is the one noted earlier at 9.75 years while the newest Conventional machine is 14.25 years. Comparing capacity, the highest advanced machine can produce more than 57K FMT while the highest Conventional machine can produce in the 47K FMT range.

the "technical age" down to 9.75, making it the technically newest machine in Canada.

It may be interesting at this point to take a side step and look at some data on Conventional versus Advanced Technology machines in Canada. Advanced machines number five, while there are 21 Conventional machines.

Measured by technical age, the newest Advanced machine is the one noted earlier at 9.75 years while the newest Conventional machine is 14.25 years. Comparing capacity, the highest advanced machine can produce more than 57K FMT while the highest Conventional machine can produce in the 47K FMT range. (See Figure 7 summary table for this and more information.)

Cost benchmarking across the ten-year window revealed some interesting facts. From a cost quartile position, Canada's T&T cost ranks 13th among the 76 T&T producing countries. (Interestingly, Canada is also 13th in production.)

From a cost quartile perspective Canada is just above the transition point from 3rd to 4th quartile (Figure 8). Relative to all other countries labour cost is likely their biggest disadvantage (Figure 9). Looking back to 2007 the Canadian cost position has not changed over the past decade (Figure 10).

When comparing 2007 to 2017 it is interesting to note the movement of other countries relative to Canada. The United States for example was

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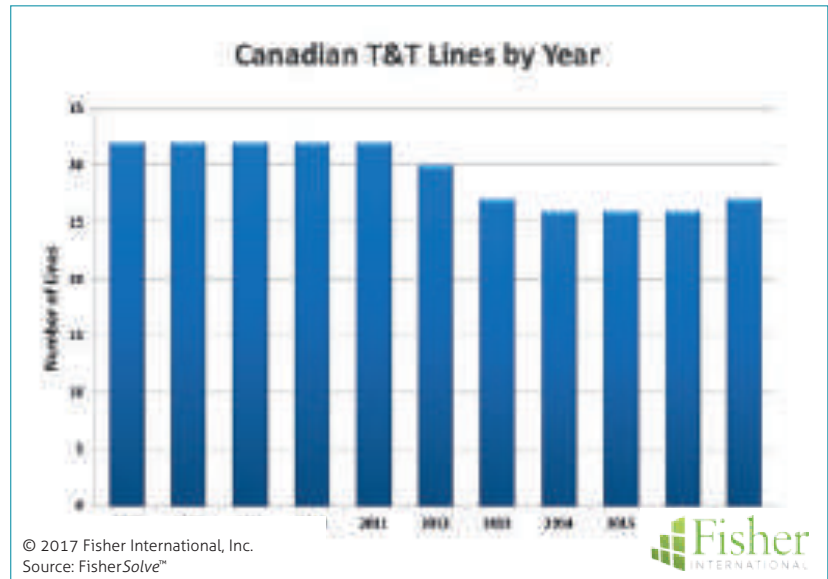


Figure 6: Canadian T&T lines by year.

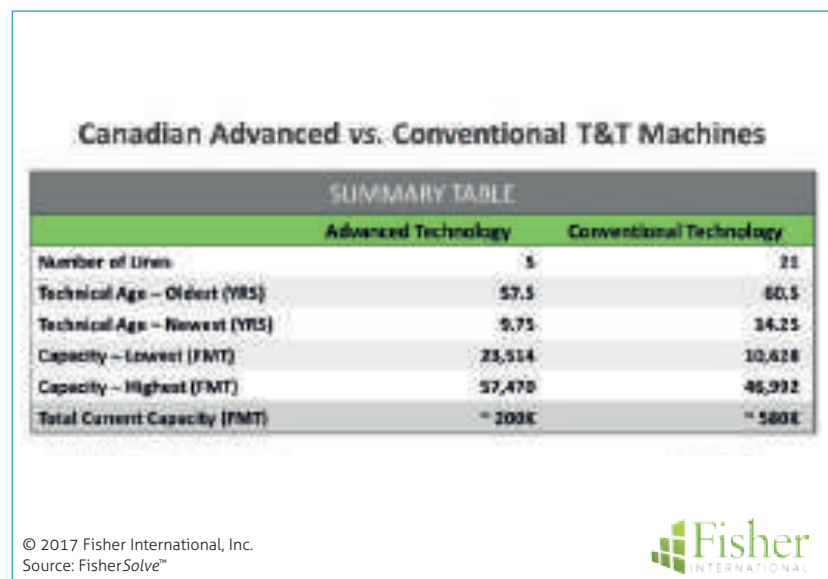


Figure 7: Canadian advanced vs. conventional T&T machines.

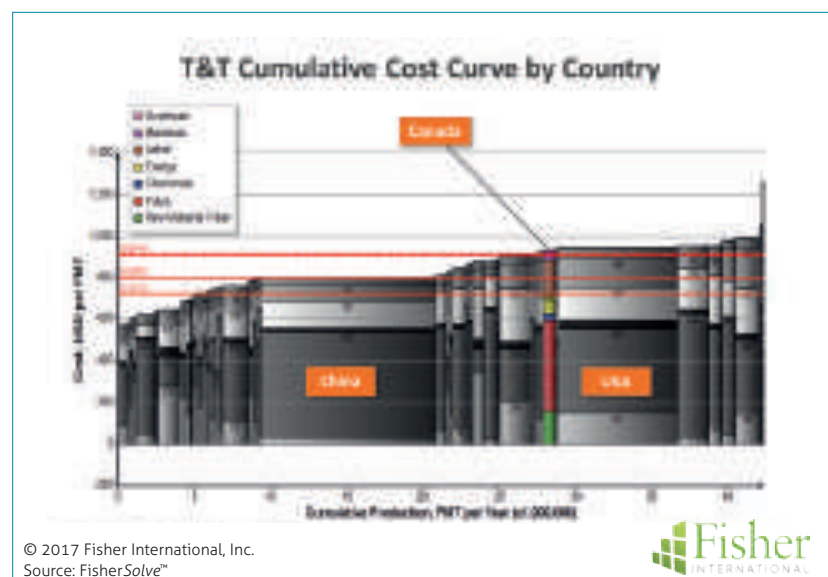


Figure 8: T&T cumulative cost curve by country.

T&T Cumulative Cost Curve By Labour Costs

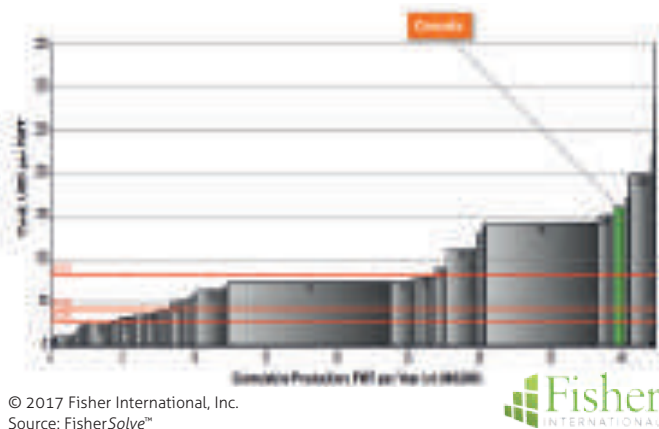


Figure 9: T&T cumulative cost curve by labour costs.

2007 Q1 T&T Cumulative Cost Curve by Country

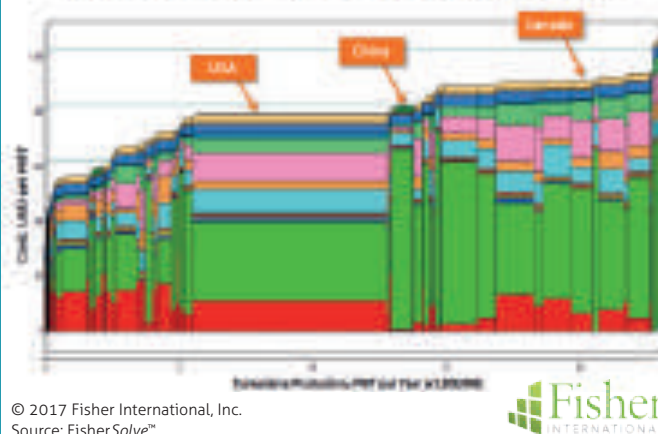


Figure 10: 2007 Q1 T&T cumulative cost curve by country.

Canadian Pulp and Paper Capacity Trend

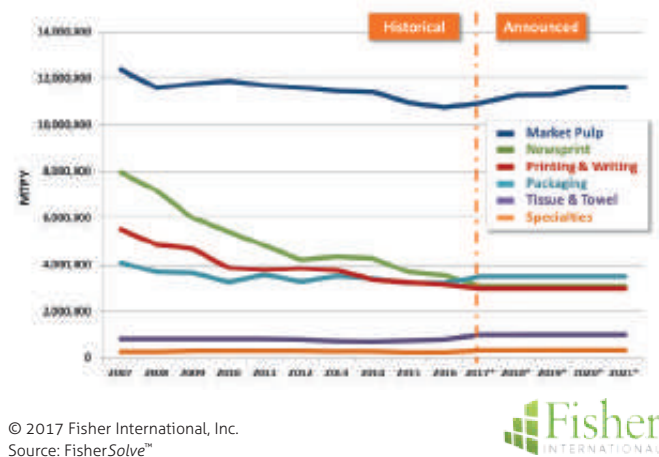


Figure 11: Canadian pulp and paper capacity trend.

Canadian T&T Mill Locations



Map: Canadian T&T mill locations.

Canada's T&T market is a steady slow-growth business. Geographically, the country is second largest in the world and endowed with abundant water and forest resources.

competitively much lower cost in 2007 than it is today. China is also a very interesting example where it held about the same cost position but has ballooned in capacity.

Canada's T&T market is a steady slow-growth business. Geographically, the country is second largest in the world and endowed with abundant water and forest resources. Demographically, Canada's population of 35+ million is growing at a positive albeit low rate of 0.74% per year. People are concentrated in the more moderate climate regions along the Northeastern, Northwestern, and United States border. As expected, T&T capacity is located in and near the population centres, as shown on the map.

The source for market data and analysis in this article is FisherSolve™.

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Canadian tissue marketplace continues to battle soft demand

The tissue market in Canada is highly-developed and as a result, demand and sales have been largely driven by fundamentals such as population growth and GDP. While outperforming many of its industrialised counterparts during and the immediate aftermath of the recession of 2008-2009, the Canadian economy has seen only modest growth over the past few years.

Real GDP is expected to grow by 1.8% in 2017, following a gain of 1.3% in 2016. Real growth of private final consumption was 1.8% in 2016 and an increase of 1.5% is predicted for 2017.

Annual disposable income per capita totaled CAD31,797 (USD23,990) in 2016, with projected growth by 0.2% in real terms in 2017. Over 2016-2030, total disposable income is forecast to grow at an average annual rate of 2.0%.

In addition to only modest GDP growth, Canada's population growth continues to decelerate. Immigration accounts for more than 50% of Canada's population gains and will be responsible for virtually all growth in the labour force in the future.

The income gaps between recent immigrants and Canadian-born remain on the agenda, with recent immigrants found among the groups with high risks of low incomes. Slow GDP and population growth, along with the lack of significant unmet potential in the country, have played and will continue to play a role in shaping the demand for tissue products as well as product development and marketing strategies.

Slow growth in retail

In 2016, retail tissue posted volume growth of under 1% to reach 486,000



Rala Chen

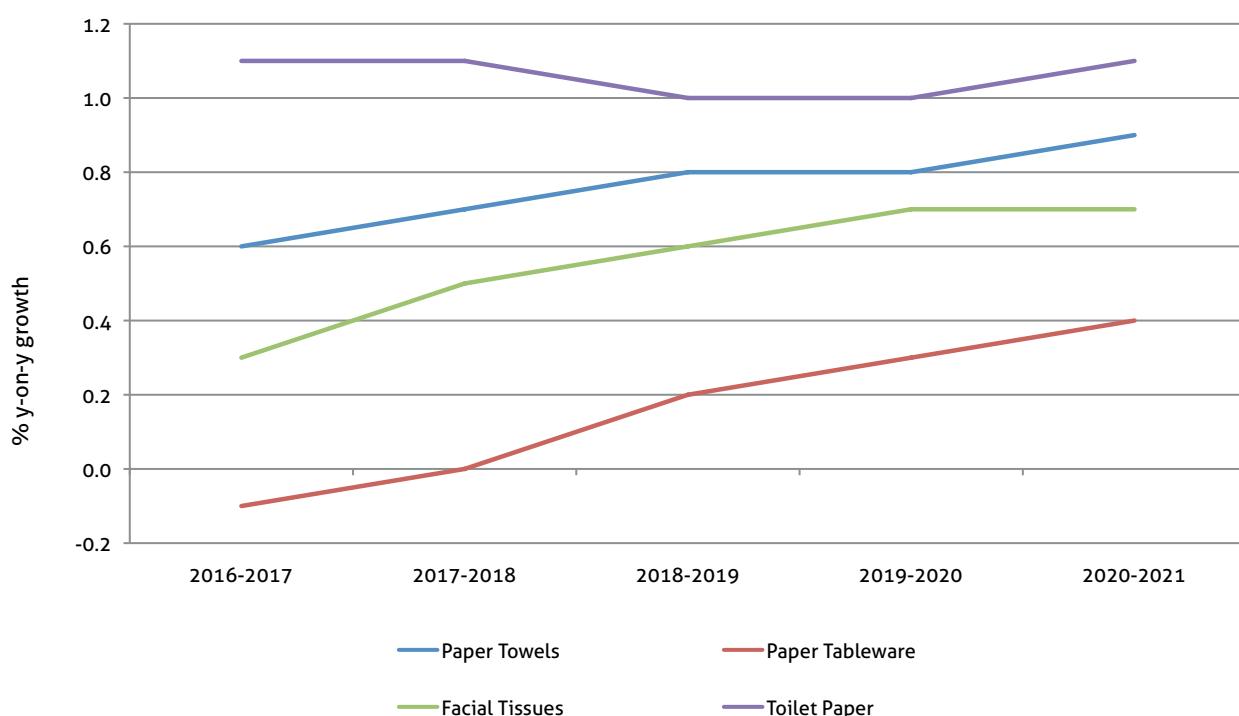


Research analyst,
Euromonitor International

tonnes. Most product categories within retail tissue in Canada are seen by consumers as non-discretionary staples, which supports the demand. However, the market has been facing demographic headwinds, including falling birth rates and slow population growth.

Volume growth in retail tissue in Canada is being mainly driven by the population

Canada, retail tissue volume sales by category, 2016-2021



growth, as the market is already saturated. Annual per capita usage of retail tissue products in Canada is 13.5kg, one of the highest in the world.

Overall, retail tissue has very limited room for higher per capita volume growth rate without meaningful innovation to stimulate consumer demand.

Combining premium with value for money

Retail tissue is seen by most Canadians as commoditized products, with little differentiation between various brands. The constant promotion activities, along with slow economic and GDP growth, have also encouraged consumers to become more price sensitive and seek out products and brands with discount offers.

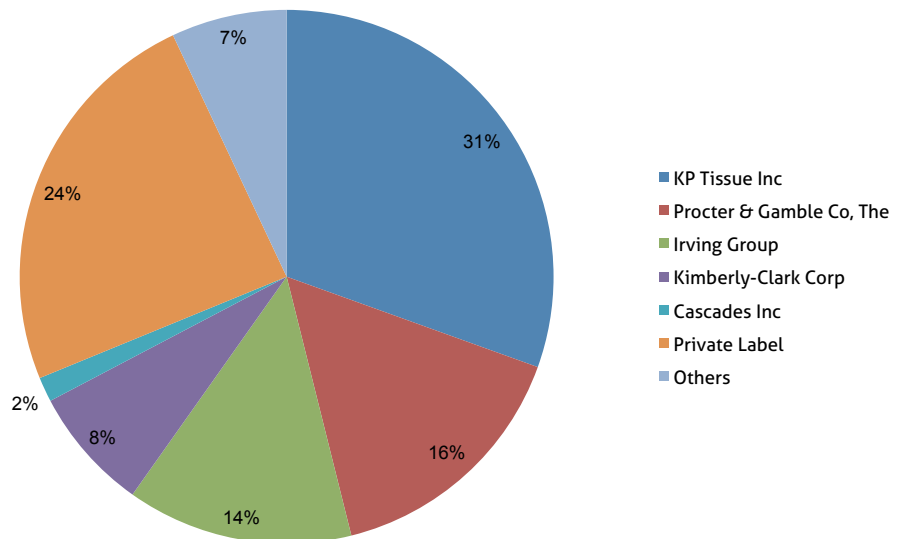
The price elasticity is very high in retail tissue, and most consumers do not show a high degree of brand loyalty. This tendency, along with product quality and innovation, also explains a relatively strong presence of private label in retail tissue in Canada, generating a value share of 24% in 2016.

Amid the conditions of slow volume demand and pricing pressures, margins remain slim for brand owners that have been looking for a balance between pricing and cost inflation to protect profit margins without losing market share.

Tissue manufacturers are incentivised to focus on the development of premium products to improve margins, while at the same time, however, looking for ways to offer value for money to price sensitive consumers. The main focus has been on offering premium textures and 'mega rolls', with the latter especially notable in toilet paper.

Procter & Gamble, for instance, offers mega rolls which are four times the size of regular rolls of toilet paper under the Charmin brand, with an emphasis on a washcloth-like texture, which provides extra softness and strength.

Retail tissue, % value share by company, 2016



Kimberly-Clark, meanwhile, recently introduced the mega rolls format under its brand Cottonelle, continuing to focus on its CleanRipple texture as the products' main selling point. Domestic manufacturer KP Tissue is promoting 3-ply toilet paper instead under the Cashmere brand, emphasising its soft and luxurious texture.

Seeking other ways to differentiate its products and offer new solutions to consumers is KP Tissue with the launch of SpongeTowels Minis, the first paper towel in compact format in Canada. This new miniature format is designed for urban dwellers who have limited storage space.

Higher value category opportunities – moist toilet wipes?

With very minimal growth in retail tissue and low profit margins, tissue manufacturers have been investing in moist toilet wipes. Manufacturers are making efforts to promote these products and educate consumers on their benefits to bring about a shift in the prevailing consumer mindset.

Major brands in the category position their products as complementary to dry toilet paper, while some of them directly

market the benefits of moist toilet wipes on the packaging of dry toilet paper. However, sales of moist toilet wipes have not taken off yet mainly because Canadian consumers are still relatively conservative and generally reluctant to make a significant change in their toilet habits.

Cost efficiencies amidst slow growth ahead

With estimated unmet potential at about 81,000 tonnes and potential incremental sales of USD288 million, the Canadian market is expected to continue to see slow growth ahead.

Over 2016-2021, retail tissue sales in Canada are expected to increase at a 1% CAGR in volume terms. Population and GDP growth will remain the key drivers of growth, and pricing pressure will remain a factor.

These tendencies will once again highlight the need for innovation that combines quality and the right price while at the same time emphasizing the need for cost efficiencies on the part of the suppliers and manufacturers.

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See the landing at sodra.com/pulp



By Tissue World senior editor Helen Morris

Cascades... the new major player determined to keep the personal touch

With a \$64m start-up on America's west coast just part of a major makeover, the Canadian company is now a big player with a small company ethos.

Cascades Tissue Group has been very busy over the past year and a half – a period of time that has seen it evolve and rebrand into a new global tissue player.

While the North American tissue company has always been known for its green and high-quality tissue products, this recent period of development has seen substantial investments, innovation, modernisation, new product launches, and – shortly – a new US\$64m tissue converting plant start-up in Oregon, on America's west coast. A complete make-over.

We met at its Candiach site, a 15-minute drive from Montreal. It is TWM's first time in Canada, and Montreal is our first city. Driving out from the busy downtown across the impressive St Lawrence River to the site only begins to hint at the size and scale of the country and its tissue market.

TWM is greeted by president and chief operating officer Jean Jobin, who is now three years into the role, vice president of marketing and innovation Thierry Trudel, and marketing director Andre Daviault. The plant houses the company's Voith-supplied ATMOS tissue machine, an investment made in 2010 and the first ATMOS line in North America.

It helped consolidate Cascades' position in the tissue products sector. The company now has 21 manufacturing and converting plants across North America, and is the number one producer of tissue products in Canada with a 33% capacity share.

In Canada, three companies have the lion's share of the market and all have advanced machine technology, either TAD or



Helen Morris

Senior editor,
Tissue World magazine

While the North American tissue company has always been known for its green and high-quality tissue products, this recent period of development has seen substantial investments, innovation, modernisation, new product launches, and – shortly – a new US\$64m tissue converting plant start-up in Oregon.

ATMOS. Beyond tissue, Cascades offers packaging solutions and fibre recovery services. The corporation also has plants in North America and boxboard mills in France and Italy.

In its recent first quarter 2017 results, following the period of marketing costs and start-up costs with the new Oregon tissue mill investment, Cascades said higher raw material prices, lower jumbo roll sales and the new facility construction investments had impacted the results. Sales were stable at \$1,006m (compared to \$1,003m in Q1 2016), while operating income of \$31m was down (compared to \$73 million in Q1 2016). Its



The new Scappoose, Oregon-based site: Intense period of modernisation

By Tissue World senior editor Helen Morris



Fluff and Tuff: Product re-branding has been creative

tissue activities reported results for the quarter "lower on both a sequential and year-over-year basis". Results in the near-term were expected to improve as Cascades "benefit from recent price increases, declining raw material costs, improving market fundamentals in Europe and stronger seasonal trends characteristic to both our containerboard and tissue activities".

The recent investment in Scappoose, Oregon, will target America's AfH market and manufacture virgin and recycled bathroom tissue products and paper hand towels. Work began in the middle of last year, with the company building from scratch.

Three lines are currently being installed that run at 800 metres per minute. "It's a very, very fast line," Jobin says. "It's state of the art. There's nothing that isn't brand new in that building. If you visit us, you're not allowed to bring an old pencil – only brand new things are allowed," he jokes. "The new Cascades Oregon mill is a brand new asset; high quality and high speed."

Some 5.2m cases will be produced there and he adds that the site's bath tissue line is the fastest in the world.

As TWM went to print, the official opening of the facility was expected in mid-July. The unit will be supplied by the Cascades tissue paper plant located 12 kilometres away in St. Helens. Its production capacity will be close to six million cases per year, or approximately 53,000tpy of finished product, and the target market is America's west coast as well as Canada.

While Canadian tissue capacity has been growing modestly, Jobin says it's still a good market to be in: "Also, the North American economy from our point of view is good."

The North American population isn't increasing rapidly, but there is stable growth and it has been steadily increasing on an average of 0.8% over the past 10 years.

The demand in the retail market is growing at twice that rate over that period – an increase of 1.6% annually. "AfH is a bit different, there was some reduction because of systems that are more efficient than in the past. Overall it's still a good market to be in," he says.

Trudel adds that the main driver of tissue demand cycles are the recessions: "We saw a big decline in the AfH market in 2008/2009, people were not going out and they kept their money. In the retail side, consumers started to buy more private labels as they were looking for less expensive alternatives. We also saw a reduction in the non-essential products.

"Paper towels, you can live without them, toilet paper is a bit tougher to live without, so that's when you see some categories shrink for that period. The major economic cycles are when you see big changes, other than that, demand is pretty stable following population growth."

When TWM interviewed Jean Jobin a year and a half ago for our Focus Report on the American tissue market, he said brands were suffering in America under private label – that private label was continuing to take shares away from the branded products in US retail, while they were seeing the reverse trend in Canada.

Now he says they're no longer seeing that trend. "In general, most of it has stabilised. If you look at the trends in Canada 10 years ago, private label was 40% and then dropped to 25%, but now it's around 24/25% depending what brands are doing in Canada, in the US it's the other way around. It went from a 17/18% to a 26/27% now. So the two countries came to an equilibrium. That's what we've seen in the past."

The North American retail and AfH tissue markets have seen a lot of consolidation in recent years, as well as a lot of new players coming into America's tissue market. "When a player

Three lines are currently being installed that run at 800 metres per minute. "It's a very, very fast line. It's state of the art. There's nothing that isn't brand new in that building. If you visit us, you're not allowed to bring an old pencil – only brand new things are allowed," Jean Jobin jokes.



"The new Cascades Oregon mill is a brand new asset; high quality and high speed."

Jean Jobin

By Tissue World senior editor Helen Morris

"We want to be different and fun – it was about getting noticed as we're the challenger in the US. So we wanted to have fun with it. We are the feel-good tissue company and our advertising has a cheeky tone to it. Our 'All clean All good' tagline sets a high standard for us to deliver to our customers."

Andre Daviault

gets bigger because of consolidation, most of the time they're more inclined to go with their brands," Jobin says.

For Cascades, its PRO division in North America is 50/50 private label and brands while in its retail division, it's 90% private label.

Daviault has no doubt the makeover will pay off. Overcapacity in the North America market means Cascades will be inventive: "You have to get creative to sell toilet paper. There's always something to do with innovation in this sector. The market is still very high volume, low cost driven. But there's more and more demand for high end products and we're responding to that with our investments and market strategy."

The existing AfH operation was completely revamped into "PRO" (it's short for professional) supplying schools, movie theatres, food service restaurants and industrial plants. Daviault, recalls the challenge of re-branding the professional division:

"A year and a half ago we did a complete sweep of all of our brands. Retail had been working on it for two years so was already well on its way. But both divisions launched at the same time. It was a full makeover for both sectors at the same time.

"We want to be different and fun – it was about getting noticed as we're the challenger in the US. So we wanted to have fun with it. We are the feel-good tissue company and our advertising has a cheeky tone to it. Our 'All clean All good' tagline sets a high standard for us to deliver to our customers."

Cascades has long claimed pioneering green status. Daviault adds: "We were the first to recycle before recycling was trendy. Green for us is part of our DNA. We offer products for the whole market, with our Good, Better and Best offerings. Our greenest is called "Perform," "Select" is 100% recycled and "Signature" is still in development, but FSC certified. This is the line-up for Professional.

Trudel says: "We have to launch new products in the next five years. We heavily invested in an innovation team and they have mandates to hit in terms of new products. Every year we'll be launching new and innovative products. We're nimble enough to do this without having to pass through many levels of hierarchy. Green is always in the back of our mind, even with the new Cascades Fluff and Tuff retail line and it's an edge."

As Cascades develops, Jobin's dream is to retain the intimate, personal touch: "We might have the number four or five position, or first or second... but I don't want to know.

"I want us to stay like a small company that is humble and wants to work with our customers and work together as a team. I want us to stay like that because it's what differentiates us from the other big players. We are simple people, we want our customers to have a good customer experience with us and we have invested a lot in that.

"In the Cascades of the future, my dream is for us to be the best company in tissue, the company that people want to work with. If we can work with them on a channel that they go to us first because of the trust that they have in our people and the quality of our people, that's what I want at the end of the day."

"Paper towel you can live without it, toilet paper is a bit tougher to live without, so that's when you see that shrink for that period. The major economical cycle is when you see a big change, other than that demand is pretty stable."

Thierry Trudel

FACTFILE: Cascades Tissue Group

Founded: 1964

President and COO: Jean Jobin

Sites globally: 90

Products: Paper hand towels, paper towels, bathroom tissue, facial tissue, napkins and wipers, for its tissue products

Sectors: Consumer market (under the brand Cascades® and other private brands), the professional market (Cascades PRO Signature™, Cascades PRO Perform™, Cascades PRO Select™, Cascades PRO Tandem™, Cascades PRO Tuff-Job™)

Certifications: UL/ EcoLogo, Green Seal and Green-e®, FSC.

Staff: 2,200

Parent company: Cascades Canada



By Tissue World senior editor Helen Morris

MPI Paper Mills - striving to be the industry's premier supply chain solution

Output is set to rise by 25% with a PM4 upgrade, even before adopting a new sales model could mean overhauling or replacing PM5 as the niche manufacturer targets key new markets. A TWM report.

MPI Paper Mills is based in Quebec, Canada. The company primarily supplies converters that focus on the AfH market, At-Home, consumer and private label markets. It supplies customers with white napkin in 1, 2, and 3-ply; natural napkin 1, 2, & 3-ply; multi ply coloured napkin, MF flat tissue for hygiene applications, MF flat tissue for waxing grade papers used in the food service segment and it has recently started to supply ply bonded napkin. Its paper mill has capacity to produce 24,000tpy and the company is in the midst of planning an upgrade to its PM4 which will increase its output by up to 25%.

In addition to its paper making, it has three other streams of business; a slitting and rewinding division, and it is also a contract manufacturer for other converters and manufacturers alike with focus in the AfH market segment, and it has completed the installation of a sheeteer and waxer enabling it to focus and sell food service papers to the distribution market focused on the restaurant and hospitality industry.



Helen Morris

Senior editor,
Tissue World magazine



"We have already identified our niche markets and have now reached the ceiling in terms of how many tonnes we can produce with our existing equipment,"

MPI Paper Mills president Karim Jadavji

Going for growth: MPI's paper mill has capacity to produce 24,000tpy and the company is in the midst of planning an upgrade to its PM4

By Tissue World senior editor **Helen Morris**

Here, MPI Paper Mills president Karim Jadavji talks to TWM about the company's latest developments.

TWM/1 Is Canada seeing growth in its tissue market?

Jadavji: "Canada is a much smaller market than that of the United States or Europe. Here, you have smaller converters and larger fully-integrated manufacturers with not much in between. Canada's market is largely dominated by three integrated tissue producers headquartered here and other major integrated manufacturers primarily from the United States focusing on select pieces of business that are aligned with their overall North American strategy. Some of them have manufacturing facilities in Canada while others only sales and distribution.

"Our growth is primarily coming from new markets. We are now servicing are now servicing our customers with coloured napkin paper, coloured napkin paper; with ply bonding application, with contract manufacturing services and with food service papers. We strive to become the Industry's Premier Choice as their 'Supply Chain Solution'. We continue to invest in and improve capabilities at our mill, which continues to open doors for us into new markets and we anticipate this will continue to drive our growth into the future.

"We have a firm belief that investing in our customers' growth, through our service levels and product consistency will ultimately facilitate growth for us. Being a medium sized niche manufacturer which does not compete with our own customers places us in a unique position that allows us to help our customers grow and in turn, makes us poised for growth."

TWM/2 Are you investing in any machinery/acquiring, do you have plans to grow and increase your capacity?

Jadavji: "We are planning on upgrading the dry-end of our PM4 which we estimate will increase our output up to 25%. We have identified potential suppliers and are moving through the selection process to identify which supplier we will ultimately partner with on this project. We have already identified our niche markets and have now reached the ceiling in terms of how many tonnes we can produce with our existing equipment. Our first phase is to improve the capacity of our PM4 and the second phase will be out a few years, but it will be to install a new paper machine in place of our PM5.

"In addition to investing in our paper making capacity, we are investing in our ability to contract manufacture a variety of products as well as begin our foray into food service papers to include: sheeting, printing, waxing and laminating services.

"We continue to invest in our people. Machinery can only take a company so far, in the end, we need to have people that strive to reach excellence, that are open to feedback and improvement and that aspire to help our customers succeed."

TWM/3 What are your main opportunities in the next few years?

Jadavji: "The key opportunities lie in the new markets in which we have begun our foray, so for us, there is plenty room to grow. Once we complete the upgrade of our PM4 and integrate the new capacity increase into our sales model, we will be evaluating the possibility of either completely overhauling or completely replacing our PM5."

TWM/4 And the main challenges?

Jadavji: "The biggest challenge for us will be to differentiate ourselves from the low cost foreign imports as well as the new North American capacity coming on stream. We need to stay true to our competitive advantage: remain focused on our niche markets where we can build solid relationships with our customers and service them at the highest level possible."

TWM/5 Is export a key potential market for you?

Jadavji: "We export to the United States and a little to overseas markets. While both the Canadian and USA markets are the key focus of our sales model, our overseas sales help diversify our sales portfolio and help us keep a pulse on overseas developments."

TWM/6 Are environmental tissue products gaining more popularity in Canada, is this a key marketing strategy for you?

Jadavji: "Environmental stewardship has become part and parcel of our industry which is why our customers expect us to be environmentally conscious. Whether or not we have any of the numerous environmental certifications, we pride ourselves in being socially responsible and respectful of the environment. We have invested significant financial resources to our environmental programme and are SFI certified. We continue to follow procedures internally at our mill that are common amongst many of the various certification guidelines to ensure we exceed expectations."

TWM/7 How is Canada's economy impacting you and the Canadian tissue market generally, is now a good time to invest and for the sector to grow?

Jadavji: "The Canadian economy is showing positive signs for overall growth. However, in comparison to the USA and European markets we still remain a small market and as a result, new investment in plant and equipment (predominantly based in USA Dollars at an FX rate of 1.35) may not yield the returns one would expect or possibly earn from other investments.

"The tissue market in Canada is a fairly mature market, limiting the potential for new investment. However, those already established in the industry will continue to find opportunities for growth providing justification for new investment."



The pulp giant planning a stronger future in tissue

No 'Country Report' from Canada would be complete without referencing its mighty forests. Canfor Pulp in British Columbia is surrounded by an unrivalled natural resource bound for a bigger share of the global quality premium market.

To the managers of Canfor Pulp's Northwood mill in Prince George the word 'vast' has a different meaning than to the rest of us. Canfor has three plants in this region all connected by two freshwater rivers and all surrounded by 100 year old trees covering a landmass of over 500,000sq. kilometres ... roughly the size of Germany, Austria, Belgium and Netherlands combined.

It is the fifth largest producer of Northern bleached softwood kraft (NBSK) pulp in the world, and for every tree cut down three more are planted, mill manager Jason Korolek says.

All of this, he adds, means the company enjoys a competitive advantage shared by no other mill.

The best way to get some idea of the scale is to go and see it ... from the air. That's exactly what the TWM editor did in a Bell 407 helicopter.

During a flight lasting over an hour we covered roughly 1% of the total forest



Scaling new heights: The view from the Bell 407 helicopter of Canfor's plants and forests

area. It brought a new definition to the journalistic principle of overview.

Back on ground TWM met mill manager Korolek, Paul Bicho, manager,

innovation and optimisation, and Bill Adams, senior director, sustainability, customer service and innovation for their assessment of Canfor Pulp's market strategy.



Above: "We take care of our fibre resource so that we can continue to make the best product available now and in the future." Mill manager Jason Korolek

TWM/1 What's your current supply of pulp to your local tissue market?

Jason Korolek: "Our pulp is sold into three markets: 30% goes into tissue, and the remaining into printing and writing (P&W) and also the specialties market. In this region of the world, Canfor has one Canadian tissue customer while the rest goes to the American market, simply because it's such a huge market – a population of 321.4m compared to Canada's 35.85m. So it's key for our tissue division."

"We're looking to grow our tissue business to 30%. Non-wovens is also a growing market for us, but it depends on how the market develops in our other sectors as we very much want to have controlled growth. We have a good speciality business, a strong P&W business, and we don't want to lose sight of that while we grow in tissue."

TWM/2 And your strategy to supply to the rest of the world?

Korolek: "We have a global vision and a presence in most other key markets apart from Europe. Very little Canadian NBSK

goes into Europe as companies there are not willing to pay a premium for it. Scandinavian NBSK pulp is also popular there and their pulp is the benchmark pulp for Europe.

"But we can get it to China as they are willing to pay the premium and so we are equally focussing on the Asian market generally. We have a great presence in Asia with a Korean and Japanese presence."

TWM/3 With the changing dynamics in tissue trends, how are your sites here prepared to embrace that?

Korolek: "Our logistics here at Prince George mean that we have a competitive advantage that no other pulp mill has. We're looking to the long term, for future generations, and our vision is broad. Our trees are 100 years old and for every tree we cut down, we plant three more."

"The current 30% of production for the tissue market, that percentage will grow, no question. We've seen changes in key markets such as America, changes in social trends and demands for tissue products, so we adapt to that."

"In China, the middle class population is growing. It has gone from 1% ultra-rich to a substantial population that has a lot of potential and more disposable income, living in condos, etc. With that change to a more middle class lifestyle comes the desire for tissue products, and that's really driving tissue growth there. We're seeing similar trends with India, just currently it's on a smaller scale, but there is a lot of potential there also because of the population."

"We're looking to grow our tissue business to 30%. Non-wovens is also a growing market for us, but it depends on how the market develops in our other sectors as we very much want to have controlled growth."

Jason Korolek



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"There are other regions we don't want to lose sight of also, but they're possibly not for us as they'll be reached by the European suppliers."

TWM/4 What are your projections for Canfor and tissue generally in the next five years?

Korolek: "Diversification is important to us, but we are not losing sight of tissue – especially as P&W demand decreases, the tissue market is becoming more of an anchor for us as it's growing globally."

"Some 15 years ago, demand for P&W was 110m tonnes, now its 85 tonnes soon to go to 75m tonnes per year. Specialities has gone from 25m to 35m over the next 15 years, which may not be fast enough to counter the reduction in P&W. Tissue is going up and up, so our tissue business will grow and we're trying to focus on the premium tissue opportunities."

"Our vision is to be linked with the best players in our three markets. We're one of the strongest suppliers and we have planned and invested so that we're around for a long time."

"Fibre is the crux of our selling proposition for tissue – we have a very strong fibre, so the customer doesn't need to refine our fibre as much. In years to come, there will definitely be a tighter supply and demand balance. Tissue in China is growing quickly and will remain a key region for us. Japan and Korea are already ahead with the quality of the products they produce, and they like the performance of our pulp there."

"Some 15 years ago, demand for P&W was 110m tonnes, now its 85 tonnes soon to go to 75m tonnes per year. Specialities has gone from 25m to 35m over the next 15 years, which may not be fast enough to counter the reduction in P&W"

Jason Korolek

TWM/5 Can tissue mills expect more pulp price increases over the following year?

Korolek: "Our focus is to listen to our sales team and respond to that, we focus on taking our fibre and doing the best we can with it so we can turn it into the strongest, brightest and cleanest pulp. Price increases are market driven; it's all supply and demand. China keeps buying and the supply is steady and demand goes up, so if you want pulp you need to pay for it as we're already sold out."

"My goal is to make lots of pulp so our sales team can deliver a high-quality product. We take care of our fibre resource so that we can continue to make the best product available now and in the future."

TWM/6 How important are environmental efficiencies for Canfor?

Korolek: "Our operations are self-sufficient in renewable energy and we have additional plans to increase our renewable energy production. Our environmental performance has also been a key



The next generation: "We're one of the strongest suppliers and we have planned and invested so that we're around for a long time," Korolek



View from above: The Northwood mill in Prince George

priority at Canfor. The market demands are becoming more and more stringent, but with good intention. And when we implement them we become a leaner operation; if you take care of energy, your costs come down and your product becomes cheaper to produce which makes us more competitive.

"For the forest, we rely on natural forest – plantations are illegal, so Canada's pulp mills are required to only harvest natural forest and replant the same species that have been harvested so the biodiversity is maintained. It's a highly regulated compliance in Canada, everything from legality to compliance and tough regulations – we're number one in the world for this, it's all so stringent. Some 99.5% of our forests are certified to either FSC or PEFC."

TWM/7 How is Canfor Pulp responding to current trends from tissue customers?

Bill Adams: "Premium tissue products require superior tensile strength and softness. Tissue makers have to be very deliberate about how much softwood and how much hardwood they require to produce these premium tissue products. Our premium reinforced pulp (PRP) gives our pulp a distinct advantage as the high unrefined breaking length allows our customers to optimise the amount of softwood therefore optimising the final softness and increasing the bulk of the premium tissue product.

"When we start to export to other regions there's a premium that we can extract because then we're competing against other pulps, which bring added value, higher strength and softness. Tissue makers can use less of it and use more hardwood and make a softer, stronger tissue.

"Canfor's PRP provides additional value to the tissue sector when compared to other softwood pulps in the market. Our PRP enables the tissue maker to produce stronger and softer products with less refining to achieve their freeness targets versus competitor BSK pulps. This higher tensile efficiency (ease of refining) allows the tissue makers to increase the hardwood content resulting in higher softness and a bulkier sheet. Many tissue makers don't have the luxury of refining the hardwood and softwood fibres separately, so they can now use less refining to protect the bulk and softness in the final product. Some tissue makers use this fibre advantage to lower the basis weight of their tissue product.

"Increasing hardwood kraft content results in a softer tissue, which is especially important in bathroom and facial tissue. The PRP fibres bring both higher wet web strength and dry strength thereby helping overall PM efficiencies – that advantage continues onto converting operations. Having a softer and stronger sheet allows the converting operation with flexibility and increased efficiency with less breaks and higher operating speeds to increase productivity.

"As a market pulp producer that wants to grow in the tissue segment, you need to build up your tissue technical capabilities to help the tissue makers optimise the properties of your fibres. Pulps need to be chemical clean and consistent fibre properties for tissue makers. Variations in chemistry and pulp properties can create disruptions to the tissue making process. Canfor Pulp has often received feedback the consistency and cleanliness is an important factor our customers appreciate.

"We're also seeing that the quality of the recycle fibre supply is dropping. Part of the reason that the tissue segment is growing is that the new machines are bigger and faster and designed to run on uniform virgin fibre. In addition, the recycled fibre being used has deteriorated in quality, so tissue makers need to blend recycled fibres with higher quality virgin fibres which is providing additional opportunity for premium softwoods.

"The tissue segment is so cost driven, fibre is around 60% of their production cost, so what we want to do is appeal to the cost side, certainly be a strong technical fit to allow them to produce premium tissues but also be sensitive to the cost factor. We have received some interesting feedback related to the water retention value of our PRP. Fibre contains two types of water, bound water and free water. It takes significantly more energy to remove bound water from the pulp fibres and the more you can remove in the press section the lower the tissue producer's overall energy costs will be. Overall it takes less energy to dry Canfor PRP which leads to direct energy savings. We are continuing to study this phenomenon in our tissue research work."

TWM/8 What global tissue trends are you seeing?

Mardy Grossman, director, business development, Canfor:

"There is growth in tissue production more in the East of the world. China is the fastest growing market and they are freight logical. Generally, we're seeing demand for more hardwood (EUCA) and less softwood pulp. There is also a continuous movement to higher quality as producers try to maintain/grow market share ... these premium grades that require quality hardwood and NBSK.

"The use of high quality NBSK requires less softwood fibre, with the EUCA providing bulk and softness at cheaper price. Higher quality tissue products have generally higher margins, while their optimum tissue properties cannot be obtained with a sub-par furnish."

"The market demands are becoming more and more stringent, but with good intention. And when we implement them we become a leaner operation."

Jason Korolek

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TISSUE WORLD magazine July/August 2017

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UBM

When it comes to the perfect wedding speech... a Best Man should never be without his 3-ply

Unaccustomed as he is to public speaking, Adam, who is based in Bristol, England, finds inspiration conveniently comes to hand when he sits and thinks about his speech.

High quality tissue paper products serve a range of purposes. But over the years I've found that 3-ply tissue serves very efficiently during one very important occasion: Best Man speeches.

They're very useful as parchment writing and can also fit very conveniently into one's tuxedo. It also has the added benefit of allowing one to lighten the mood by opening the speech with a very "wedding-y" joke:

"Unaccustomed as I am to public speaking, I made a big effort to sit down and really think hard about the groom ... so I scribbled down a short speech on whatever paper that was to hand."

Apart from that, I had never thought previously about what tissue products we consume as a household, but now realise that they are possibly under-represented compared with their ubiquity in other homes.

Buying them is often more of an afterthought than a premeditated purchase. Nevertheless, upon reflection, I was still surprised by the range of products we do use.

The obvious example is toilet tissue. Because we live in a relatively small city and don't have kids, we gave up our car some time ago and these days we rely on supermarket deliveries for fortnightly shops, with frequent top-ups from our local big-name minimarket.

Ironically, we almost never order toilet rolls online (which would probably be

more economical) and instead tend to buy locally when there are offers on packs of 9-16 rolls of medium-grade, branded rolls.

Buy-one-get-one-free (BOGOF) deals and offers of significant reductions on multipacks are almost constantly available in UK supermarkets, so when we do run out we just pop to the store to get more – and if there aren't any bulk deals, we'll usually just get a good quality 2-roll pack to tide us over.

Cheaper toilet paper tends to represent a false economy because you just need to use more, and sometimes, when you select the lower quality brands you accidentally buy scented loo roll – which is highly unpleasant.

It's important to us that the paper is sustainably sourced and not chemically-treated with unknown perfumes.

Kitchen rolls sporadically appear on top of our fridge although neither my wife nor I remember buying any! Nonetheless, it does get occasional use and is great for spills or for drying food when cooking; my friends with children reliably inform me that it is indispensable in their day-to-day lives.

More typically, we have packs of surface-cleaning wet wipes in our kitchen, although I prefer re-usable dish cloths if environmentally-friendly packs aren't available – we feel strongly about sustainability but also biodegradability.

Wet wipes have also made their way into our toiletry supplies – my wife is a makeup artist and a performer so often wears stage makeup and finds these

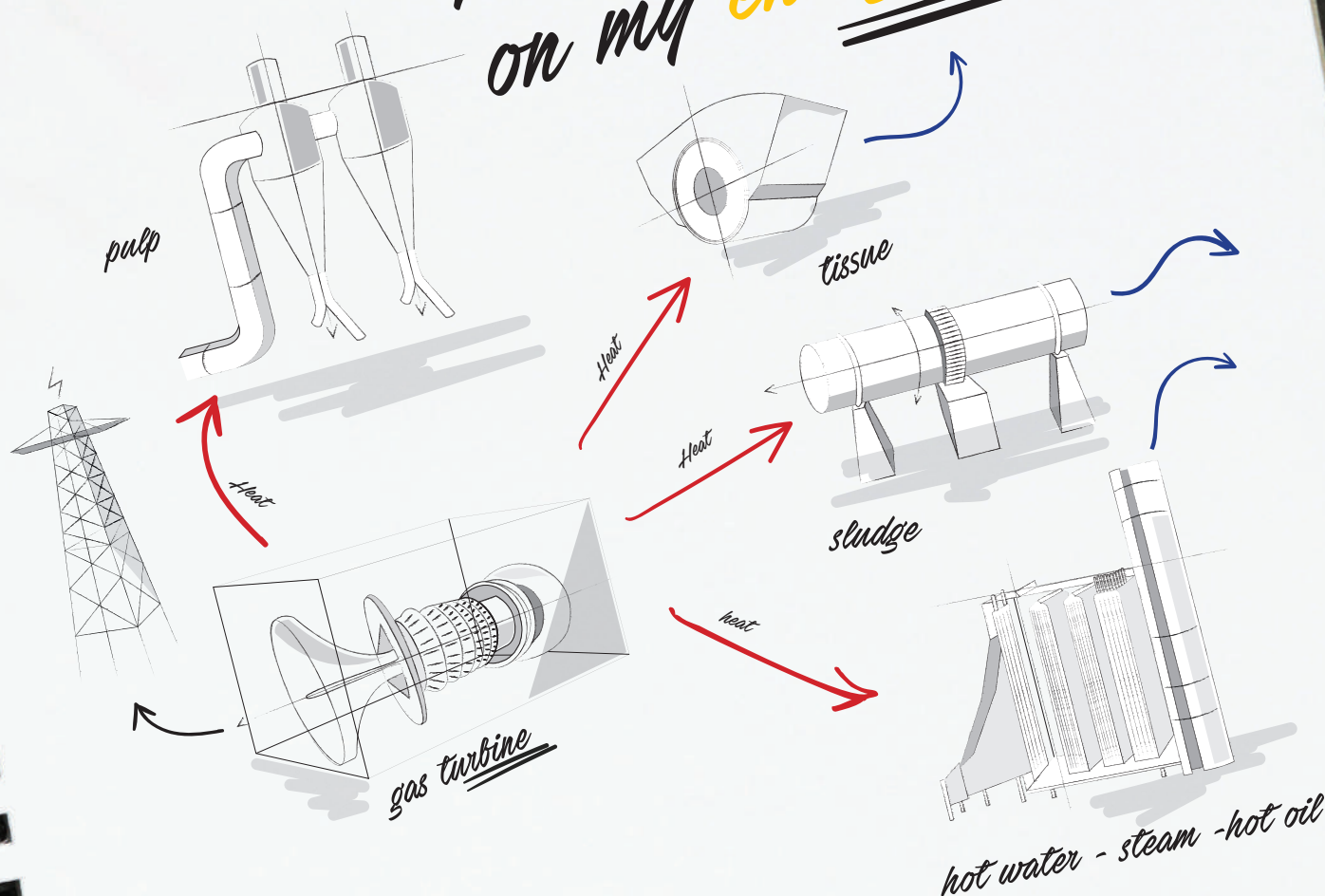


to do the best job of cleaning her face without using harsh solvents.

We opt for baby wipes as they are manufactured for sensitive skin and are unperfumed and I especially look for "flushable" products. Unlike the situation in many modern cities emerging around the world, many of the sewer systems in UK cities continue to be narrow Victorian waterways that were installed over a century ago... so endeavouring to avoid causing blockages is something of a civic responsibility!

I run a small office and we use handtowels in the bathrooms – although they can be perceived as more wasteful than electric hand-dryers, they feel more hygienic and we ensure that the used towels are processed as recycling. In the office itself, we keep a ready supply of "blue roll" to hand for spills and cleaning; as someone who worked in bars and restaurants for years, the perennial blue roll is a reliable, hardy solution for commercial settings.

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New OnePly product that “easily competes with TAD and NTT”

Spain's LC Paper won Tissue World Milan's prestigious Most Energy-Aware Mill Award. Here, chief executive Joan Vila talks through the development process which led the independent niche tissue producer to energy savings of up to 70% – and create a world-leading product.

LC Paper has been continuously evolving its energy saving efforts since it was established in 1993. Initially, we were a cogeneration plant using a diesel engine that took advantage of the heat for the production of steam. In 1999, we took that a step further and developed it into a gas engine in order to produce steam.

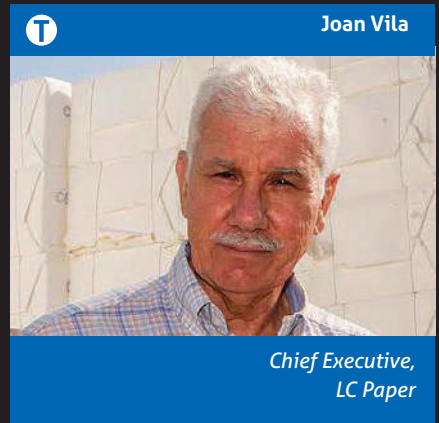
In 2009, we have been using the gases from this engine to directly dry the hood of our tissue machine, as well as using two steam boilers – at 17 bar and 1 bar – and each with its own corresponding economiser. The yield obtained was an increase of 85%, with a sequential advantage in series.

The 400°C output gases from the cogeneration plant now come out

at the end of the harvesting cycle at 105°C and the energy consumption in manufacturing decreased from 3,000 kWh/t to 2,100 kWh/t, with a 30% reduction in primary energy consumption. In addition, a new circuit with POM technology allowed us to manufacture with water consumption of 2.5 m³/t.

In 2012, we took it a stage further and developed a new product called OnePly replacing two layers with a higher weight layer.

This led to a substantial reduction in primary energy consumption of up to 1,700 kWh/t, an additional 19%. The tissue paper was sold in the form of jumbo rolls to a few customers.



Joan Vila

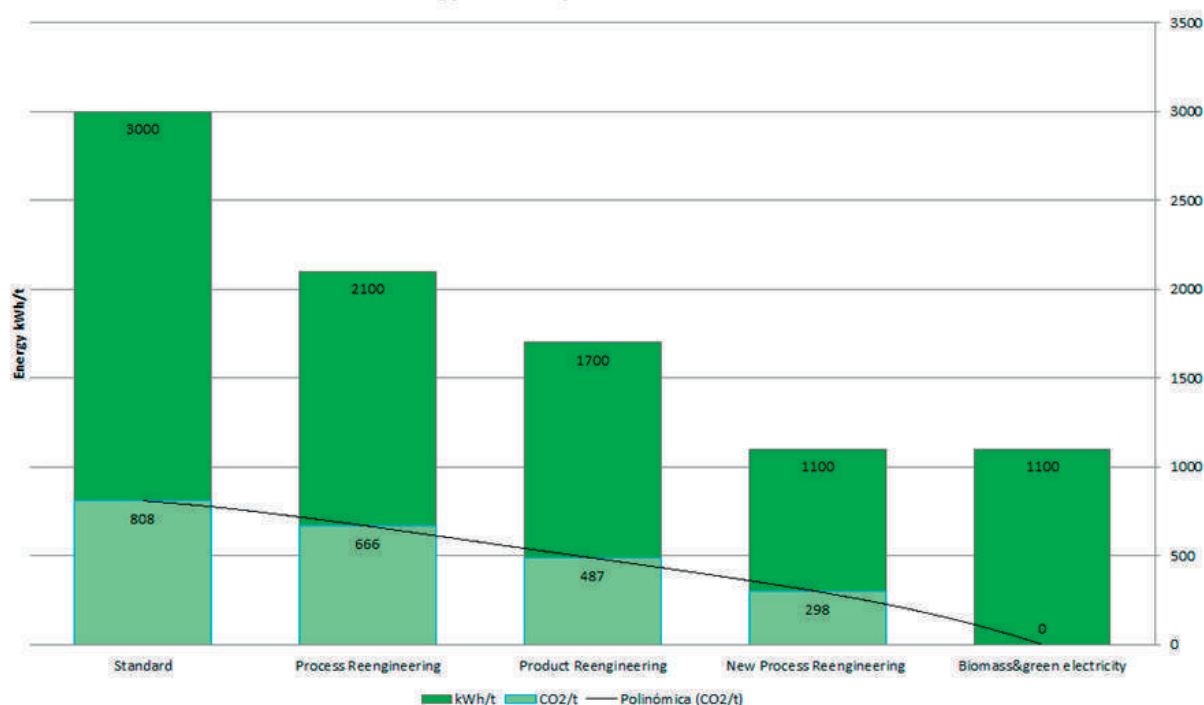
Chief Executive,
LC Paper

In 2014, PM2 was modified for the production of OnePly, maintaining the pick-up with two presses at 90 kN/m and 120 kN/m. We are now using a Steel Yankee with high thermal conductivity



Setting new standards: LC Paper's mill in Besalú, Spain

Energy consumption versus CO2 MP2



Above: Energy consumption and steps in CO2 reduction for the sequential process

and a hood with the use of the gases of the second gas engine of the cogeneration plant – the result was a primary energy consumption of 1,100 kWh/t, an additional 35% saving.

OnePly initially had difficulties penetrating the market with jumbo rolls because its embossing was not easy as it is an asymmetric product, and also because it finished with rolls of densities of more than 300 kg/m³. For our converting customers of jumbo rolls, it had serious cut difficulties.

In response to this, a pilot machine was constructed for the development of a new embossing technology. The goal was the production of rolls of OnePly tissue paper for toilet paper and for autocut and centrefeed paper towel.

Last year, we started testing our embossing technology on our new converting machine with successful results. We are now starting to work on its commercialisation.

The technology developed led to the creation of a structured OnePly tissue with a high softness allowing us to decrease the grammage of the final product down to 26 g/m² with toilet paper down to 32 g/m² now easily competes with TAD and NTT products.

A new toilet paper with OnePly technology has also been developed with high softness (79° TSA) and good absorption, containing 60m of paper with a roll of 115mm, achieving energy savings in transport of 50%.

It allows us to create 8" autocut rolls with a length of 800ft, weighing 1.6kg and packaged in cartons of six rolls. This in turn allows savings of 45% in transport energy, which adds up to the long path of reducing our overall energy consumption.

Our primary energy consumption in the manufacturing and transportation process has also evolved from the standard consumption of 3,387kWh/t of towel autocut paper to 1,229kWh/t – a difference of 64% in energy consumption.

But if we look at the levels of energy by area, the specific energy for a conventional 2-ply toilet roll of 16gsm is 0,107 kWh/m², while the specific energy for 26gsm is 0,032kWh/m², so a difference of – 70%.

The achieved energy efficiency has been realised at each energy level using the knowledge of conventional technology, modifying first the process to later adapt the product. Becoming

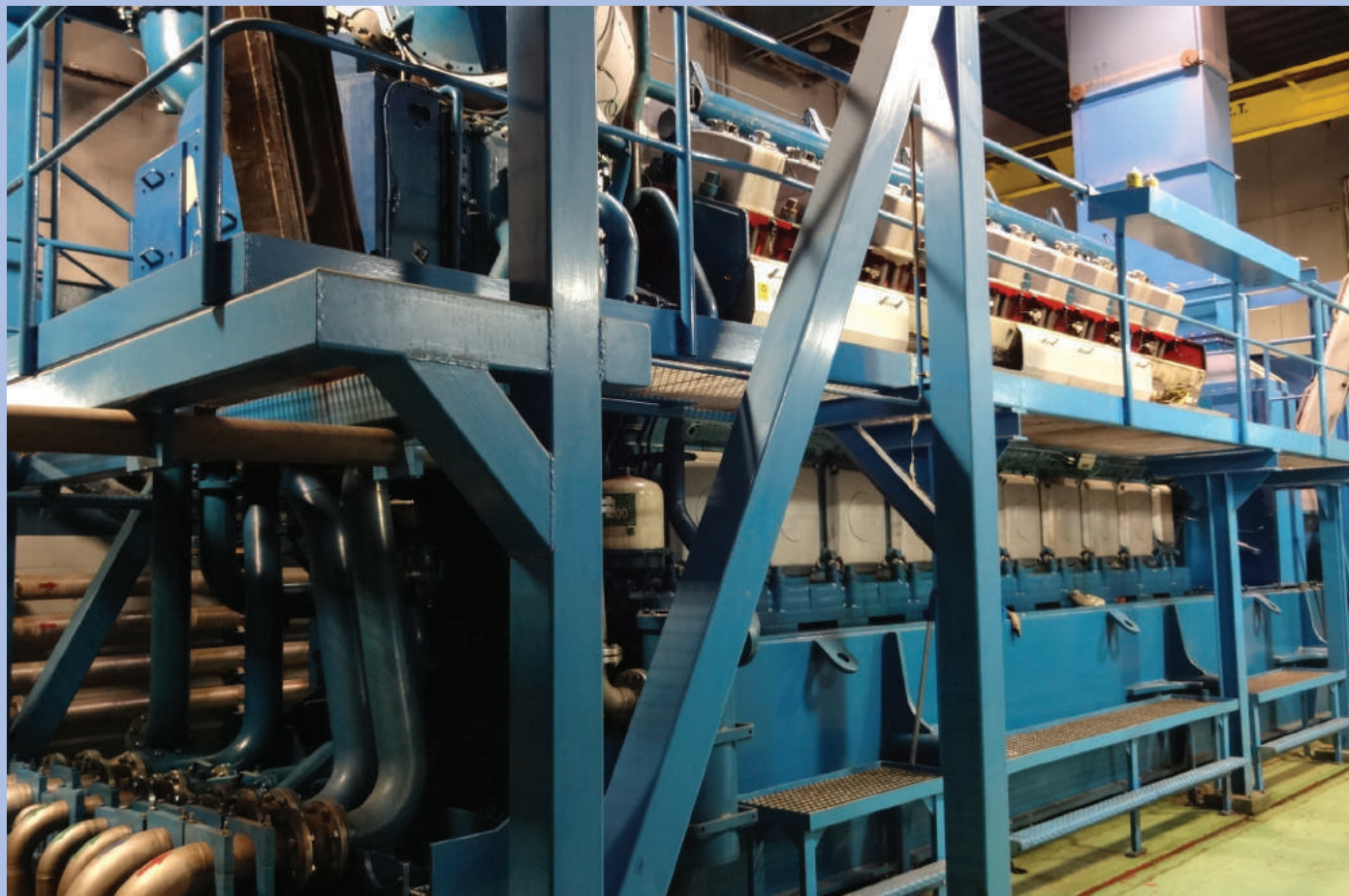
more energy-efficient has made the company leaner and more productive

For a small company like LC Paper, it has been hard to survive in a world led by larger companies with strong economies of scale and with hard-to-match raw material purchasing power. To tackle this, we have chosen to follow a path to manufacture niche products and develop different technologies. We have developed a different type of product, with lower emissions and with better costs than conventional technology, TAD or NTT.

The new product could be made with virgin pulp or with a mixture with a recovered paper, and also means we can produce products with the maximum flexibility and cost.

The lowest costs in energy consumption allow us to export further and not suffer the high pressure of the local market.

On the other hand, we believe that the new product will be well accepted throughout the American continent where there is a significant presence of TAD products, as well as in countries with markets sensitive to products with low emissions such as France, Germany, Holland, Belgium, the Scandinavian countries, New Zealand and Australia.



Full circle: The site's 6 MW gas engine

LC Paper: environmental certifications

Since 2012, we have had the Ecolabel certification. Additionally, we are FSC, PEFC, ISO 14001 environmentally certified, ISO 50001 energy certified and ISO 14067 carbon footprint certified.

We have also signed a voluntary agreement for the reduction of CO₂ which has also been supported by the Spanish administration/government and a local energy group, the Locomotora Energetica.

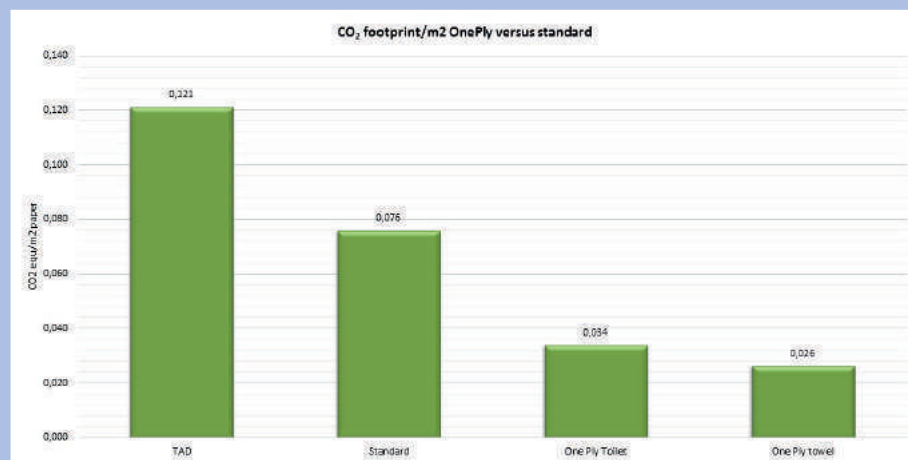
We have achieved the greatest reduction in the level of CO₂ during the manufacture of tissue paper. PM2 now uses 100% pulp or 50% recovered postconsumer paper, but in its manufacture, it only uses 300kWh/t of steam and 800kWh/t in electricity.

In June 2017, we started a new biomass boiler for the production of steam with wood chips and in July, the electricity purchased will be 100% Green certificated.

We have also signed a voluntary agreement for the reduction of CO₂ which has also been supported by the Spanish administration/government and a local energy group, the Locomotora Energetica.

From this moment, PM2 will make tissue paper with neutral emission of CO₂. The impact on the climate change caused by

CO₂ emissions from TAD, conventional tissue and OnePly Technology is:



Above: Climate footprint by area for TAD, standard tissue and OnePly products. The development project for the OnePly technology received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 757004.



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The Barometer Issue: One year on... you report back on your progress

In 2016, TWM visited a number of tissue mills from around the world – in Vietnam, Egypt, Jordan, the US Northeast, Colombia and India – for the magazine's Country Reports. Here, we revisit a selection to see what has changed.



Saigon power house: Last year increased from four to seven stations which operate 24 hours daily

VIETNAM

Jan/Feb 2016: Saigon Paper

Saigon Paper (SGP) has been consistently stepping forward to reinforce its number one position by market share in the Vietnam tissue market as well as actualising its ambition of being the number one player in ASEAN.

The company says it has maintained a ratio of export that makes up 30% of its capacity and aims to increase total export revenue by 200% in the next five years, with an annual growth rate from 30% up to 70%.

Among its objectives are developing export markets. In 2017, it celebrated its 20th year of establishment anniversary and stated its new vision: for SGP to become the market leader in ASEAN.

By obtaining and applying for international management certificates such as FSC, ISO 9001, ISO 50001, ISO 14001 and OHSAS 18001, the company says it is proud that its products are

accepted to export to the toughest markets such as Europe, America and Japan.

The company says its advantage is to make its products maintain a competitive price; it is its own agents collecting waste paper throughout the nation as well as maintaining a strong network over the world to be proactive in supplying production materials.

In 2016 – 2020, it will continue to upgrade its capacity of internal materials supply to satisfy 80% up to 100% of materials demand for production. Last year, it increased from four to seven stations which operated 24 hours daily.

Its diverse product portfolio includes industrial paper (testliner, chipboard, sizing medium and medium), semi-product (parent jumbo roll) & finished-

Helen Morris

Senior Editor,
Tissue World magazine

product (toilet roll, facial tissue, kitchen towels, handkerchief, napkin, hand towels) in tissue which helps it serve various demands of export markets.

Asia including ASEAN and America are its potential export markets. In Asia including ASEAN, it is seeing fast-growing demands with an average growth rate of 10% every year, helped by closer regional economic integration, large domestic markets and rising personal income.

In America, the business says it is already exporting to the country and that its large demand is "very attractive for our potential growth in revenue".

The company says it has maintained a ratio of export that makes up 30% of its capacity and aims to increase total export revenue by 200% in the next five years.

By Tissue World senior editor **Helen Morris**

JP Corelex Vietnam

When TWM met Masahiko Nagata, the Japanese general director of the Hanoi-based recycling pioneer JP CORELEX VIETNAM in Vietnam at the start of 2017, the company was well placed for growth in its home and also nearby tissue markets.

Its 60,000m² site is based 40km from Hanoi and is a joint venture, manufacturing 100% recycled tissue paper used to create toilet paper, facial, towel and napkin products. Most production is exported overseas as jumbo rolls.

The JP Corelex Group has mills in Hokkaido, Kanagawa and Shizuoka in Japan, where it established technologies for the recycling of difficult-to-regenerate wastepaper around 50 years ago. It now accounts for a large share of the recycled toilet roll market in Japan, helped by products such as coreless toilet roll.

Its Japanese market strategy and philosophies have been applied directly to its production site in Vietnam: "We brought the same system that we do in Japan here, so the quality is the same," he says.

Vietnam's potential tissue market remains very clear: it still has a young

and growing population of nearly 90m, a steadily increasing economy buoyed by foreign investments and exports, and rapidly changing demographics that are seeing its rural population becoming increasingly urbanised and moving to cities. However, Nagata says that for the time being, he doesn't feel that Vietnam domestic household paper consumption is increasing.

EGYPT AND JORDAN

March/April: Zeina Group

The past year has seen Zeina make huge investments in all aspects of its business and commercial director Ahmed Natout says the company is continuing well on its quest to become the undisputed tissue manufacturer in the Egyptian market.

A state of the art machine has been newly installed and is operating with optimum efficiency for toilet and facial products to meet the increasing demand for its products in the market.

He adds that the investments made on the toilet paper machine (Sincro 5.0) have allowed Zeina to become the market leader in this segment, giving the consumers best quality and products that fit their different needs.

He says: "Being one of the most dynamic markets in the region, the Egyptian market has witnessed many changes in consumption and purchasing trends over the past year. After the pound devaluation, consumers started seeking both value for money products and smaller price points which translated to the rising trend of using compressed and multipurpose jumbo rolls. The compressed rolls are now the most convenient solution for consumers as it saves money and space and lasts four times longer than the standard rolls.

"Having the consumer at the heart of our operation, our main concern in 2017 is how to add value to their lives and give them customised products that caters to their different needs. This is why we have launched many initiatives under the concept of "More than a box" which aims to position Zeina tissue as the irreplaceable companion for the Egyptian consumer."

He says that in Egypt, the tissue box is considered by many as a decorative piece whether in the office or living area, and the company wanted to provide something that will not just meet this criteria but also exceed expectations: "We partnered with one of the well-known home designers to launch our first product under the concept of "More than a box", our Designer Edition;



Investment strategy: Zeina, on a quest to become the undisputed tissue leader



Indevco Paper Making: Focusing on flexibility and better recycled tissue quality

"Vogue". The box design combines a modern and elegant piece to go along with the spirit of your home and the concept of visual therapy triggering optimism and bringing happiness to lift up your own spirit."

The company has also launched the "Ramadan Edition" for all its products (facial boxes, bags, kitchen, and handkerchiefs) to share each occasion with its consumers, where Zeina will be part of the Ramadan decorations.

He said: "Finally, one of our newest launches is our "Color Me" boxes, focusing on the trend of Adult Coloring and Mandalas, we provided our consumers with the first coloring tissue boxes that allows them to customise their own box and create their own piece of art."

The company has also launched the "Ramadan Edition" for all its products (facial boxes, bags, kitchen, and handkerchiefs) to share each occasion with its consumers, where Zeina will be part of the Ramadan decorations.

He said that political and economic instability in Egypt will be one of the biggest challenges in 2017 for all players in the market. Also, the entrance of new players is creating a very large number of tissue brands which is leading to an oversupply in the market that is not met equivalently with increasing demand from consumers.

Indevco Paper Making

Imad Issa El Khoury, vice president of Indevco Paper Making (IPM), a division of the Indevco Group, says that during the past year the Egyptian market has become very competitive. "Some converters are dumping their prices to preserve their market share from new entrants," he says.

In response to the changing market dynamics, the company has upgraded its de-inking plant to give it more flexibility on the machines and better recycled tissue quality. The investment will be commissioned in the fourth quarter of 2017.

El Khoury had previously said the company was aiming to strengthen its reach overseas as the business was faced with regional jumbo roll overcapacity, the loss of energy cost leverage, while many of its traditional neighbouring markets were being hit with security issues.

The company manufactures a wide range of jumbo tissue rolls for the facial tissue, table napkins, toilet tissue markets as well as selling to household towel converters. IPI specialises in producing various grades of virgin, recycled and partially recycled jumbo tissue roll and it operates four mills: a tissue mill in Egypt (Interstate Paper Industries), another tissue mill in Lebanon and two paper mills in the USA.

By Tissue World senior editor Helen Morris

When TWM met the company and its key members of staff, just walking around the site gave you glimpses of its history: the corner stone on the mill's entrance dates back to 1932, the building's walls are its original walls, and once in the reception area there's a wall full of Marcal's advertising campaigns spanning over 80 years.

THE US NORTH/EAST

May/June: Soundview Paper Company

Soundview Paper Company's flagship operation is located 12 miles northwest of New York City.

When TWM met the company and its key members of staff, just walking around the site gave you glimpses of its history: the corner stone on the mill's entrance dates back to 1932, the building's walls are its original walls, and once in the reception area there's a wall full of Marcal's advertising campaigns spanning over 80 years.

At the time, the site encompasses more than one million square feet of manufacturing and storage facilities on a 30-acre site, boasting fully integrated deinking, towel, tissue, napkin and facial production, 23 converting assets (nine bath winders, three towel lines, two facial, and nine napkin lines), as well as separate storage facilities for housing finished goods and parent rolls.

It manufactures the Marcal brand of tissue products for AfH, office, private label and retail customers, using recycled paper collected from the densely populated metropolis on its doorstep.

Most recently, executive vice president of sales and marketing John Glaze says the company has made significant investments to both upgrading and adding converting lines to support its At-Home, private label and AfH product segments.

"Essentially, we have added six converting lines and substantially improved the output and flexibility of two of our existing high speed lines.

"Essentially, we have added six converting lines and substantially improved the output and flexibility of two of our existing high speed lines. Our converted sales are also up by nearly 30% and continue to grow with the ramp-up in converting capacities. We have also grown our New Jersey workforce by nearly 10%."

John Glaze

"Our converted sales are also up by nearly 30% and continue to grow with the ramp-up in converting capacities. We have also grown our New Jersey workforce by nearly 10%."

The historic company has found yet another way to be on the move, coupling its history with a modern focus.

"The growth of this format is very aggressive, and continues to fix a low-price band that puts pressure on the other formats. Today's consumer preferences for tissue revolve around less expensive presentations and a lower price."

César Augusto Solano Velandia

COLOMBIA

July/August: Papeles Nacionales

When TWM met general manager César Augusto Solano Velandia at his Cartago-based site, one of his key goals for the company was to continue to expand its capacity in Colombia with the goal of following the growth of its clients.

Speaking almost a year later and he says that over the course of the year, the country has experienced a slight contraction: "The Colombian consumer has changed their shopping and consumption habits and this has been reflected in the tissue categories.

"We have not made any investment to date. We are adjusting ourselves to a changing market in which consumers have redefined their priorities."

He adds that the economic conditions of Colombia continue to favour the growth of the hard discount format, which represents approximately 25% of the category sales:

"The growth of this format is very aggressive, and continues to fix a low-price band that puts pressure on the other formats. Today's consumer preferences for tissue revolve around less expensive presentations and a lower price.

"The big challenge for the brands is to meet the expectations of consumers in quality and "out of pocket" capacity. The consumers continue demanding added value (texture, softness, etc.)



Orient Paper capacity boost: The third paper machine at the Kolkata-based headquarters

as a requirement to stay in their traditional brands.”

He adds that in the specific case of bath tissue, the category has been reconfigured in terms of formulation (pulp and recycled archive), size, and number of sheets.

INDIA

November/December: Orient Paper

TWM met managing director ML Pachisia, chief advisor for the paper division R.C Mall, and Gautam Mullick, senior vice president marketing, at the company's Kolkata-based headquarters.

Part of the CK Birla group, Orient Paper has recently commissioned its third tissue paper machine supplied by

Orient installed two tissue paper lines supplied by Toscotech and has been exporting over 50% of its total tissue paper production from these machines to a regular customer base across several parts of the world. A significant portion of tissue papers from this third tissue machine is also expected to be exported.

Valmet, making a capacity of 25,000 MT per year. With this expansion, Mall says that Orient Paper is now the largest producer and exporters of tissue paper from India.

Target products from this machine are high-quality facial and toilet grade tissue papers. The product quality of these papers has already been supplied to both domestic and overseas customers and has been well received, he adds. Additionally, Orient had installed two tissue paper lines supplied by Toscotech

and has been exporting over 50% of its total tissue paper production from these machines to a regular customer base across several parts of the world. A significant portion of tissue papers from this third tissue machine is also expected to be exported in addition to meeting a healthy growth of tissue paper demand in India.

The company entered the tissue segment in 1997 with the installation of a 9,000tpy capacity tissue machine supplied by Toscotech.



"We will keep investing in new production lines, napkins and hygiene to keep up with the demand and remain competitive."

Armando Marques, partner and technical director, Poppies

As Brexit looms UK domestic tissue suppliers see their chance

Poppies is a leading UK manufacturer and supplier of high quality bespoke printed napkins. TWM asked partner and technical director Armindo Marques how he plans to meet the challenges and uncertainties of the pre- and post-Brexit market.

The AfH market in the UK has historically been very challenging due to fierce price competition. Lately the trend has seen a consolidation of the market with the big operators integrating smaller companies. This is true for both sides, customers and manufacturers. Our own developments reflect this trend perfectly. In 2012 we took over McNulty Wray, the UK-based experts in bespoke/personalised napkins. Then in 2015 we integrated the AfH division of Staples Disposables, one of Britain's pioneers for hygiene products. These investments were the direct result of the combination of two elements that rule the UK market:

- a need from the customers to have a 'One Stop Shop' supplier;
- and the pressure on the manufacturers to always find synergies and efficiencies in order to remain competitive.

Since the vote for Brexit, as a manufacturer the impact we have felt has been immediate. We have seen a collapse of pound sterling, which has had a direct impact on the cost of raw materials increasing it by 14%. As the UK is the biggest importer of tissue paper in Europe with purchases done in Euro and US dollars our industry has been severely impacted.

The chaos that followed the vote meant we had to act quickly to review all of our systems to;

- improve efficiency;
- increase productivity via a £2m investment;
- and adapt our purchasing strategies.

We had to work very hard to minimise the price increases for our customers.

Although tissue products are mainly volume commodity items with low

margins that can't absorb high transport costs, the UK has always seen a constant flow of imports coming from other European countries where integrated manufacturers have the industrial need to shift some volumes at very low margins in order not to disturb their internal markets. This phenomenon has dramatically slowed down after the vote, as I suspect those imports ran into negative margins and Poppies did not miss this opportunity. We have invested in an extra three new production lines to support our double digit organic growth.

The biggest challenge for the tissue AfH market is its segmentation: from delivering one mixed pallet with 20 product references to small independent wholesalers as against truck load deliveries of a single product line to large international corporate distributors. To achieve this and offer the best service we have invested in a robust ERP system (SAP) backed up by 34 high performance production lines along with a very well trained and motivated work force.

The next opportunity for us is to expand our presence in the retail market. The prospect of Brexit has opened a lot of the retailers' doors especially for napkins where they now favour domestic suppliers. Export is also an opportunity: our own natural export market is Ireland where our "Poppies" brand has become very popular with its core values ... "Professional, Trustworthy and Dynamic" are really appreciated by the customers.

As our industry is directly linked to the economic condition, if people struggle they don't go out as much and therefore don't consume disposables products. Before Brexit the napkin market had been steady in volumes while growing in value due to a clear trend for better quality (3-ply tissue and airlaid) and more personalised products. We recognised that trend and invested over £5m in the last four years to produce

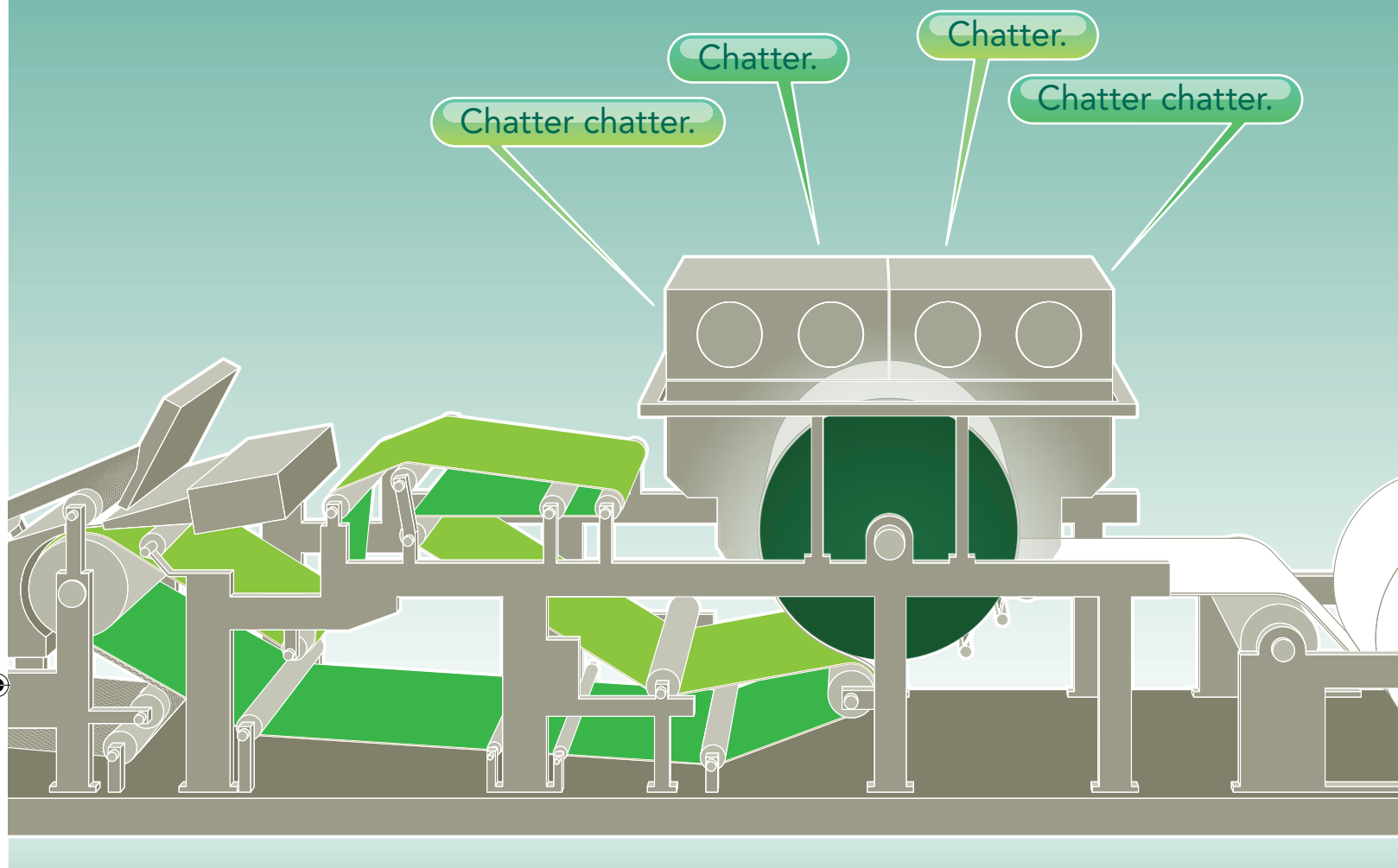


high quality bespoke printed napkins. We are now the UK expert.

From our perspective as the Brexit process progresses, the economic outlook for the coming years is very uncertain. But at Poppies we strongly believe that the napkin market will hold for the next couple of years and following the Brexit conclusion in 2019 will carry on growing at a steady pace in to the next decade.

In the medium term we will keep investing in new production lines, napkins and hygiene to keep up with the demand and remain competitive. This year we will purchase three Omet napkin lines with printing, one Servotec-supplied napkin line high quality print and three wrapping machine from Multipack. The new technological jump for us will be the digital printed napkin lines that offer a photo quality print on tissue. There are three main players on the market and we are currently assessing their propositions.

As we did in our recent past we will be actively looking for potential synergies with other competitors. Takeovers are clearly part of our growth strategy. If we fast forward and look into the long term, our ambition is to have an integrated operation and start producing our own tissue paper.



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Events Calendar

Event	Date	Location	Website
Label Summit Latin America 2017	May 16-17, 2017	Santiago, Chile	www.labelsummit.com/chile/
Tissue World São Paulo	May 31 – June 2, 2017	São Paulo, Brazil	www.tissueworld.com/SaoPaulo
ISSA/INTERCLEAN North America	September 11-14, 2017	Las Vegas, USA	www.issainterclean.com/northamerica/
Labelexpo Europe 2017	September 25 – 28, 2017	Brussels, Belgium	www.labelexpo-europe.com
Tissue 2017 Conference and Expo	October 3 - 6, 2017	Miami, Florida, USA	http://tissue2017.com/
MIAC	October 11-13, 2017	Lucca, Italy	www.miac.info/
ISSA/INTERCLEAN ISTANBUL	October 18 – 20, 2017	Istanbul, Turkey	www.issainterclean.com
Tissueex 2017	November 1- 4, 2017	New Delhi, Delhi, India	http://www.tissueex.com/en-GB
PAP-FOR	November 13-16, 2017	St. Petersburg, Russia	www.papfor.com/en/
Labelexpo Asia 2017	December 5-8, 2017	Shanghai, China	www.labelexpo-asia.com/welcome-labelexpo-asia-2017
Tissue World Miami	March 21 – 23, 2018	Florida, USA	www.tissueworld.com/miami
ISSA/INTERCLEAN Amsterdam	May 15 – 18, 2018	Amsterdam, Netherlands	www.issainterclean.com/en/amsterdam
Asian Paper/Tissue World Bangkok 2018	June 6 – 8, 2018	Bangkok, Thailand	www.asianpapershow.com/www.tissueworld.com
Tissue World Istanbul	September 4 – 6, 2018	Istanbul, Turkey	www.tissueworld.com/istanbul
Labelexpo Americas 2018	September 25-27, 2018	Chicago, USA	www.labelexpo-americas.com/welcome-labelexpo-america
ISSA/INTERCLEAN North America	Oct 29- Nov 1, 2018	Dallas, TX, USA	http://www.issainterclean.com/



	Page	Website		Page	Website		Page	Website
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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

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
- ☐ Converting machinery and supplies
☐ Printing machinery and supplies
☐ Inks, glues and dyes
☐ Embossing rolls

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
- ☐ Knives and blades
☐ Folders/interfolders
☐ Cores and coreboard
☐ Wrapping/Packaging equipment and supplies
☐ Transport and logistics
- ☐ Energy and Power
- ☐ Testing machines
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- ☐ Other (please specify):

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