

The independent news provider for the global tissue business

TWM

TISSUE WORLD MAGAZINE

BRAZIL

Tissue is the nation's star player – and has stepped up its game

PLUS MARKETISSUES

Chinese tissue market sees good growth - but oversupply continues

TW MILAN

Global tissue 'reaching new peaks year after year'
Key points summary

RETAIL SPECIAL

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Family Tissue: from nose blowing to Construction Club in this issue's ConsumerSpeak. Plus, the future for fibres in our Technical Theme.



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Cover: An illustration of architect Oscar Niemeyer's Ibirapuera Auditorium building in São Paulo, Brazil. By PURPLEPRINT Creative



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YOUR NEEDS, OUR SOLUTIONS.

Pulp and Paper United do the nation proud

Let's describe general economic performance in recent years as a football match ... why not, this is Brazil after all: it has been an end-to-end thriller. TWM must first apologise to those across the tissue world who don't follow that particular game. The same fluctuating fortunes would apply, give or take, in tennis, rugby, beach volleyball, American football, ice hockey, basketball. The only pre-requisite for our little metaphor is that there are two ends.

Cyclical strength prior to 2008, then the global crisis saw GDP growth plummet from more than 4% to zero... an early lead undone by letting in two goals before half-time. The midfield was strengthened in the second half and GDP came bouncing back 7.5% in 2010.

As 90 minutes approached, fitness began to wane, then there were a few questionable decisions by the officials (this is an oblique reference to the political scandals which have rocked the country), which saw performance levels and commitment drop by as much as 3.8% by 2015. If it goes to extra time the forecast is a struggle to maintain performance levels. Then against the odds our team – the Pulp and Paper United – emerges as the winner. In fact, team tissue has been on a winning streak throughout this whole period of fluctuating fortunes, and we now have silverware in the trophy cabinet to show for it... the world's top supplier of market pulp trophy.

Plus, our academy has been nurturing young talent, and that is expected to come to

fruition in 2018 with an expected return to pre-crisis tissue growth.

How did The P&Ps do it? We could hardly want for a better analysis than that offered by Carta Fabril's vice president Victor Coutinho as he proudly discussed with TWM another 'trophy' – the world's widest Steel Yankee, which will be installed at its Anápolis-based site. In a wide-ranging interview he lays out the strategy... covering climatic benefits of accelerated forest growth, competitive machine installations, higher productivity, energy efficiencies and water savings, the consequences of political crises, the lasting benefits of governmental programmes enabling better income distribution, to the Brazilian consumers' search for better quality products.

Juliano Silva is another football fan who draws parallels between the game and the economy. The managing director of Indaial Papel (IPEL) reflects on the deep gloom following Brazil's humiliating 7-1 defeat by Germany in Brazil's own World Cup: "It was necessary. Sometimes it takes being at the bottom to rise back up." The team wasn't up to it. The economy wasn't up to it. Inside he describes how the goals are flying in again.

TW MILAN 2017 raises the bar again

The facts and figures could hardly be more impressive – a total of 3,284 participants from across 106 countries, 2,274 visitors and 1,010 personnel from 200 exhibiting



Helen Morris

*Senior editor,
Tissue World magazine*

companies. Some 25 companies exhibited for the first time with 53 speakers analysing the latest trends before 234 attendees.

The industry's most prestigious and international tradeshow was a stunning business success. So successful that it's amazing that we found time to enjoy some of the many attractions which the beautiful city of Milano has to offer ... but we did.

Networking continued apace at a lavish gala dinner, a happy hour and a live band performance on the show floor ... and during the 3-0 Juventus thrashing of Barcelona, a result which pleased (some) Italians at least. The figures could hardly be more impressive – but that's exactly what we are fully committed to making them again when we go back to the magnificent Milan for Tissue World 2019.

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Chinese tissue market in a good growth phase but oversupply continues

According to a recent talk by Zhang Yulan, of the China National Household Paper Association (CNHPA), in 2016 the Chinese tissue business maintained growth, and the expansion of the tissue industry continued at a good pace – tissue continues to be the fastest growing category within the paper industry.

Based on the 2016 figures shown in her presentation, Chinese tissue parent roll production grew by 6.6% from 8.024 million tonnes to 8.552 million tonnes in 2016, and domestic consumption grew by 7.0% to 7.876 million tonnes.

We use the production figure published by CNHPA as the base for our analysis, but our foreign trade figures are slightly different as we include also the category 48.18.90 in converted tissue products in our figures.

This Harmonised System category includes various smaller groups of converted products, including base paper rolls narrower than 36cm, which are used for converting facial tissue, hankies and napkins. For this reason, our net export figure is more than 130,000 tonnes higher and, consequently, our tissue consumption figure is correspondingly lower.

So, based on our calculations, Chinese tissue consumption grew by 7.0% from 7.225 million tonnes in 2015 to 7.731 million tonnes in 2016, the same growth rate as shown by CNHPA but with consumption at a slightly lower level. Our forecast for 2016 was 6.3% growth, so we were too conservative.

Growth in tissue consumption in the two past years has exceeded our expectations, which shows that the business is in a strong upward move despite the slowing economy.

In the past, growth in tissue consumption lagged behind economic growth with an average ratio of 0.8-0.9, but recently this trend has broken and the ratio is now above parity (1.08 in 2016).

This development is showing that factors other than economic growth, such as accelerating urbanisation, revitalised population growth (the policy change from one child to two children) and rapidly rising overall hygienic standards are having an increasingly strong influence on consumption of tissue and other hygiene products.

One major ongoing trend in the Chinese tissue market is the move from white tissue to unbleached brownish tissue, which seems to be a hot topic in the country at the moment.

The authorities have planned regulation for restricting the brightness of tissue paper below 80°, but so far it is not clear how far along the current plan is and no new standards regarding this issue have been introduced. But the market seems to be in a move in this direction.

Unbleached bamboo pulp used for tissue manufacture in central China is perhaps the main driving force, led by companies such as Lee & Man, who is in a very strong growth phase with its recent diversification into the tissue



Esko Uutela



Principal, Tissue,
RISI

business, followed by straw pulp with Shandong Tranlin Group as a major player. And even products made of unbleached wood pulp were seen at stands at the 2017 CIDPEX event.

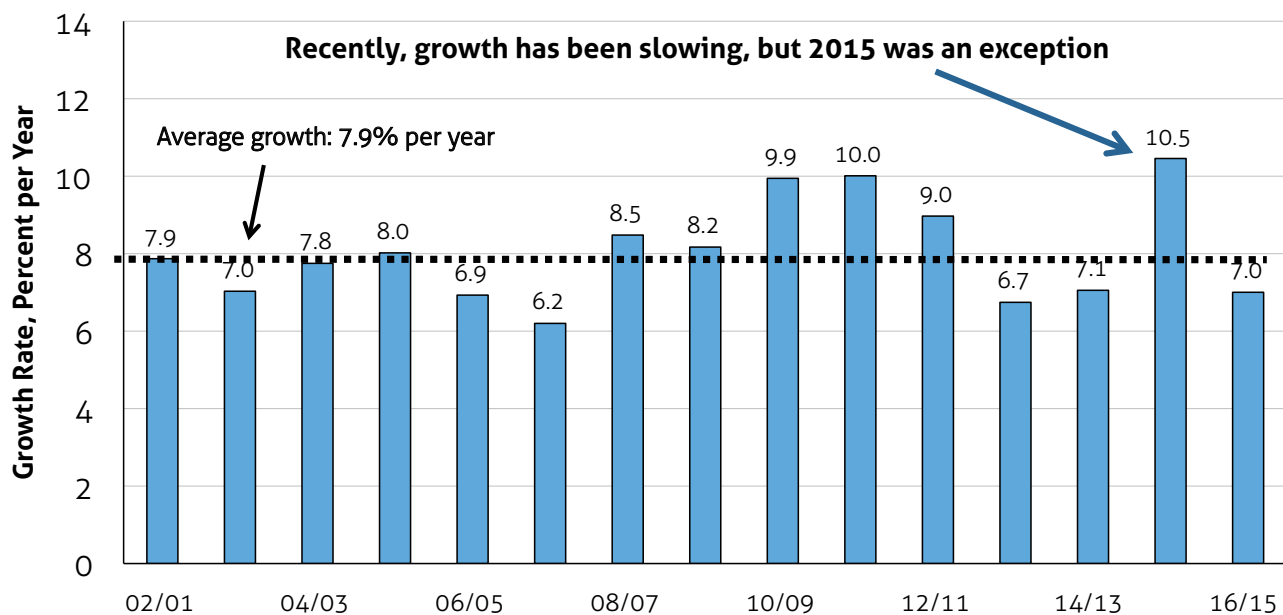
Today, local players estimate that the market for unbleached products is not more than 5% or slightly less than 400,000 tonnes of the total market – we doubt if it is even that high.

In the panel discussion of the recent CIDPEX conference, the participants, including representatives from Lee & Man and Shandong Tranlin, were optimistic – overly, in our opinion) – concerning the future of unbleached tissue products, expecting their share to be around 30% of the total market within the next five years!

With the current growth, this would mean about three million tonnes of unbleached tissue. If the industry were to move that quickly in this direction, the available raw material base could be a major bottleneck, based on currently available non-wood-based pulp capacities and resources for possible non-wood pulp expansion.

And as people generally think white means clean, will unbleached products be able to convince consumers that they may be more environmentally friendly than bleached products?

The authorities have planned regulation for restricting the brightness of tissue paper below 80°, but so far it is not clear how far along the current plan is and no new standards regarding this issue have been introduced. But the market seems to be in a move in this direction.



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The second major feature of the Chinese tissue market is the increase in online tissue sales. We do not have any statistics available covering the whole country, but we do have reports from some major players.

Vinda Paper, the number three player in the country, reported that in 2016 about 18% of its tissue sales were done online, up from 12.9% in 2015 and 7% in 2014.

The share of the revenue was even higher, almost 22%. This may not be representative for the whole industry, but we think that online sales of tissue are more popular in China than elsewhere in the world and the national share of online tissue sales could be in the range of 10-12%.

For comparison, in the USA online tissue sales account for only roughly 5% of the business.

Investments in the tissue industry continue to bloom. There was a phase when many new entrants emerged in the Chinese tissue business, but in 2016 most of the new project announcements came from the existing players.

Only three new enterprises announced their entry into the tissue industry in 2016, namely Jiangxi Huawang Paper

The structural change in the Chinese tissue industry is continuing at a very fast pace, with a lot of world-class capacity coming on stream by the main players.

Co. (a plan for 100,000 tonnes per year of capacity), Sichuan Jintian Paper Co. (100,000 tonnes), and Sichuan Qianwei County (420,000 tonnes). However, these plans are still on the drawing board.

New capacity additions continue to exceed demand growth in China, although project delays are also typical. CNHPIA reported that the total capacity planned to launch in 2016 was about 1.8 million tonnes, but as about 30% of projects experienced delays for various reasons, the actual new capacity that came on stream last year was 1.3 million tonnes. But there were also a substantial number of closures of old capacity.

For example, the Baoding tissue paper base in Mancheng, Hebei, alone invested in about 370,000 tonnes per year of new capacity, but also recorded about the same volume of capacity closures, according to CNHPIA.

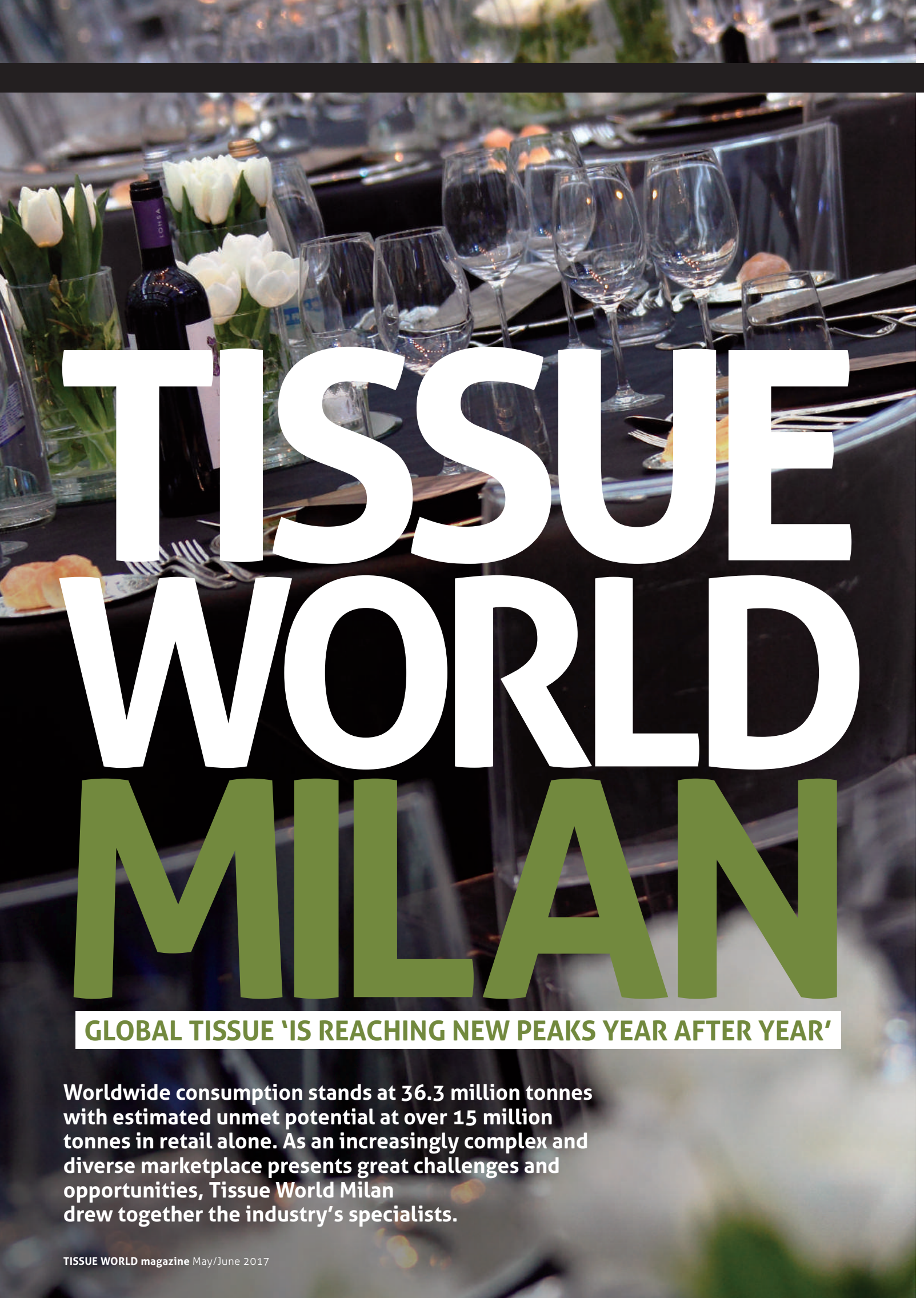
In the country as a whole, closures may have been in the range of 400,000-

500,000 tonnes, if not more. We are still updating our mill data base and checking which mills still exist, a process that will likely take another couple of months at least.

The structural change in the Chinese tissue industry is continuing at a very fast pace, with a lot of world-class capacity coming on stream by the main players.

And at the same time, equipment at small and medium-sized enterprises is being upgraded, and this process has actually recently accelerated.

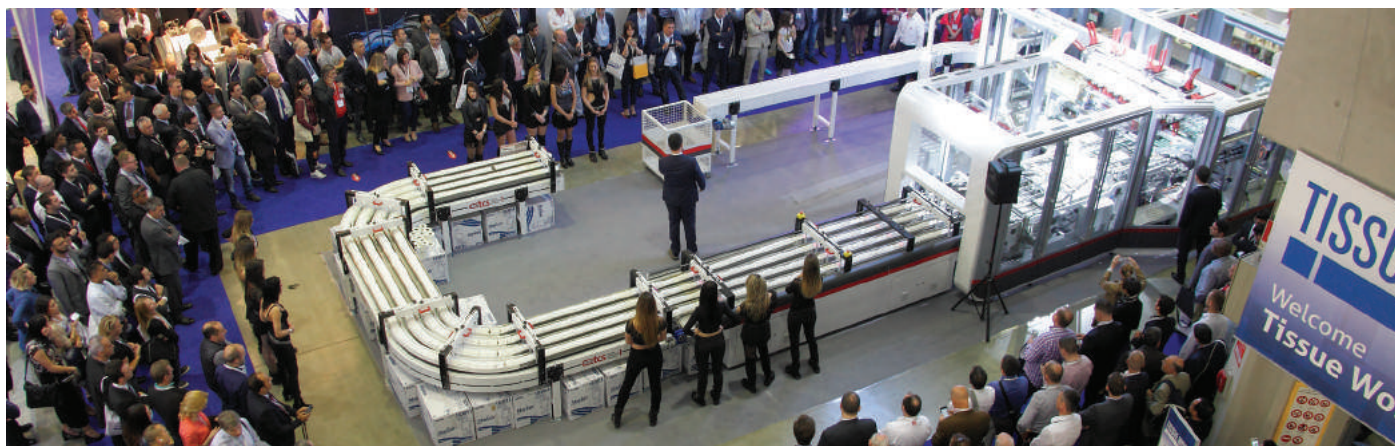
However, competition is quite fierce, and it is obvious that not all tissue enterprises will be able to survive the current competitive environment. The game in the Chinese tissue market is very tough right now.



TISSUE WORLD MILAN

GLOBAL TISSUE 'IS REACHING NEW PEAKS YEAR AFTER YEAR'

Worldwide consumption stands at 36.3 million tonnes with estimated unmet potential at over 15 million tonnes in retail alone. As an increasingly complex and diverse marketplace presents great challenges and opportunities, Tissue World Milan drew together the industry's specialists.



Tissue's historic heartland always deserves something extra special... and Tissue World was proud to stage its most successful tradeshow to date at Milan's Fieramilanocity.

Tissue World Milan 2017 hosted 3,284 participants from across 106 countries: 2,274 visitors walked the show floor while 1,010 personnel from 200 companies showcased their latest technical and innovative developments. Some 25 companies exhibited for the very first time.

The three-day conference hosted 53 speakers who discussed the latest tissue and economic trends to 234 attendees.

World tissue's most prestigious and international tradeshow saw three days of networking and deal-making.

The Tissue World TV-corner was in full swing featuring live interviews by the one and only 'the other Michael Jackson', broadcasted over the entire show floor.

A top class social agenda helped smooth some of those deals through to signing. Included was a gala dinner, a happy hour and live band on the show floor.

A top Champions League football clash – it was all soccer to our American delegates – spiced up the evening.

TW was handing out awards to winners too: Hungary's Vajda Papir winning the Best Tissue Marketing Strategy Award, while Spain's LC Paper won the Most Energy-Aware Mill Award. Milan confirmed Tissue World's status as the leading exhibition for the vibrant tissue industry.

We hope you can join us for Tissue World 2019, which will once again be held in the beautiful city of Milano! Below is a summary of key issues from Milan's conference sessions.

CONFERENCE: SENIOR MANAGEMENT SYMPOSIUM

Economic Outlook: The good, the bad and the ugly.

Andrea Boltho, emeritus fellow, Magdalen College, University of Oxford, UK

The world's economic outlook at present is, inevitably, clouded. Trump's economic policies are, as yet, unknown. Should he stick

to some of the pronouncements he made during the electoral campaign (huge tax cuts for richer households, imposition of tariffs on China and Mexico, drastic reductions in the immigrant population, etc.), he may well risk a trade war abroad and, possibly, even a recession at home.

Should he behave more presidentially (and also accept that Congress may veto some of his more extreme policies), then the US economy may not be unduly affected by the change in the White House. Indeed, it could even benefit from corporate tax cuts and a large programme of infrastructure investment. Further uncertainties relate to the unravelling of the Brexit process and, more generally, to the rise of populism in Europe. At the time of this conference and of going to print, elections will be being held this year in the Netherlands, France, Germany and, possibly, Italy.

Successes for populist politicians seem unlikely at present, but then the same was said about Brexit and Trump. Forecasts for the world economy are at present clearly surrounded by an unprecedented amount of uncertainty.

Key points:

- America and China are growing, emerging markets are recovering and activity in the Eurozone is rising. However, there is huge uncertainty due to past and possible future political shocks.
- BREXIT – A SETBACK: Brexit will have economic costs but these are unlikely to be massive. In the short – to medium-term investment in the UK will be lower because of greater uncertainty, but some of this shortfall will be made up as the uncertainty dissipates. In the longer-run UK output will suffer since the country will lose unfettered access to the single market and is highly unlikely to offset this loss with (time consuming) free trade agreements with other countries. But even in a worst case scenario (out of nine) Oxford Economics sees 2030 GDP only 3.9 % below the level it would otherwise have reached. For other EU countries the effects are also likely to be negative but negligible (with the exception of Ireland where GDP, by 2030, could be 1.6% lower than otherwise).
- TRUMP: Trump, unfortunately, could be a threat both politically and economically. Very difficult, as yet, to be sure about his economic plans. Three possible scenarios: i) Protectionist with a risk of trade wars, plus lots of deregulation and tax cuts for the rich and for corporations, ii) Reaganite with little protectionism, tax cuts for the rich,



deregulation and lots of infrastructure spending (including a wall to rival China's Great Wall), iii) Constrained by Congress, Trump settles for more modest goals.

- **RISKS TO THE OUTLOOK:** Trade wars, higher US interest rates, a Chinese hard landing, Euro tensions.
- **Simulating a trade war:** assume US slaps 45% tariff on exports from China, 35% on those from Mexico and 20% on those from Korea ... Assume all three retaliate with equal tariffs on US exports ...
- **THE LINGERING WORRIES ABOUT THE EURO:** Greece, despite the huge costs of its adjustment programme, has not gone for "Grexit", but the temptation must still be there; Italy is subject to the same temptation (and two political parties, including the important 5 Star Movement, have openly talked about a referendum on EMU membership); "Grexit" would, in all probability, have a serious negative effect on European growth; "Ixit" (let alone "Frexit") would, almost certainly, lead to EMU breakdown. This, in turn, would usher in a massive recession. The political will to stick to Monetary Union is very, very strong, but economic realities also matter ...

The circular economy and hygiene products: how it's all connected.

Mario Forte, customer quality director, Global Hygiene Supply Tissue AfH, SCA, Sweden

Today's linear "take, make, dispose" economic model relies on large quantities of cheap, easily accessible materials and energy, and is a model that is reaching its physical limits. Dame Ellen MacArthur of the Ellen MacArthur Foundation has outlined the concept of the Circular economy as the attractive and viable alternative to the linear economy. A circular economy is a continuous positive development cycle that preserves and enhances natural capital, optimises resource yields, and minimises system risks by managing finite stocks and renewable flows.

How is the model of a circular economy relevant for a hygiene business model? With a life cycle perspective, it soon becomes obvious that tissue and personal care products makers meet both opportunities and challenges. Renewable raw material is clearly on the pro side, whereas the pulp, paper and tissue making processes will meet challenges and needs innovative re-thinking. Customer and consumer waste has to be addressed both by policy makers and the manufacturers. Unconventional partnerships will open up for finding new solutions and will inspire new business models. The Circular society is here to stay; this is a business

opportunity that will require creativity, innovative thinking and new partnerships and business models.

Key points:

- **Responsible sourcing:** SCA Global Supplier Standard, new fibre target, ensure access to sustainable and innovative materials and technologies to enable circular products at an affordable cost.
- **Resource-efficient production.** Striving for zero workplace accidents. Reduce CO2 emissions in mills and factories with 20% by 2020. Sustainable water management. 100% recovery of production waste by 2030. Aiming at 100% fossil free or renewable energy and electricity.
- **Sustainable solutions and after use:** all products and services designed for a circular society, innovating new products, aim for 100% renewable or recycled raw materials, improve circularity (re-use, recycling composting or digestion), educate consumer and customers to facilitate circularity, continuous improvements in resource efficiency in products, services and production, in partnerships develop sustainable business models for recycling.
- **Working towards a circular society** will inspire innovation and uncover business opportunities. Resource efficiency is a key component. Products and services must be designed for sustainable consumption with a full life cycle perspective also considering waste management.

Managing for sustainable growth: as a company, and as an industry.

Luigi Lazzareschi, chief executive, Sofidel Group, Italy

At a time of scarcity of natural resources and an ever-increasing attention paid to environmental and social impacts, Sofidel believes that businesses have the responsibility of playing a vital role not only in terms of production and distribution of goods and services, but also in guaranteeing long-term, social and environmental advantages for stakeholders at all stages of the value chain. In this light, Sofidel places strategic importance on sustainability for growth and development and through this commitment aims at increasing its competitiveness in the mid-to long-term, and contributing to an improvement in the quality of life of all its employees, the communities in which it works and the world at large. Well aware of the fact that, if we want to build a positive future, it's time for governments, businesses and civil society to join forces for a multilateral, efficient and brave action.

TISSUE WORLD

THE PREMIER
EXHIBITIONS AND
CONFERENCES FOR THE
INTERNATIONAL TISSUE
AND PAPER INDUSTRIES

Miami

Milan

Istanbul

Bangkok

São Paulo

SPOTLIGHT ON THE INDUSTRY THROUGH GLOBAL EVENTS

TISSUE WORLD

São Paulo

31 May - 2 June 2017
Transamerica Expo Center (Hall E)
São Paulo, Brazil

TISSUE WORLD

Miami

21-23 March 2018
Miami Beach Convention Center
Miami, USA

TISSUE WORLD

Istanbul

4-6 September 2018
Istanbul Congress Center (ICC)
Istanbul, Turkey

TISSUE WORLD

Milan

25-27 March 2019
Fieramilanocity Hall 3
Milan, Italy

TISSUE WORLD

Bangkok

6-8 June 2018
BITEC
Bangkok, Thailand

ASIAN PAPER

Bangkok

6-8 June 2018
BITEC
Bangkok, Thailand

NEW ADDITION: In an exciting recent development, Tissue World is pleased to announce Tissue World Bangkok, held alongside Asian Paper Bangkok, the longest running event serving the paper, pulp, packaging, print and corrugated industries.

Offering global benefits to the entire chain of paper, paper-related and tissue industries, Tissue World and Asian Paper Bangkok 2018 will be the only meeting point serving Asia and the entire ASEAN markets for industry professionals to network, do business and learn!

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TISSUE WORLD MAGAZINE

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Organised by



UBM

By Tissue World senior editor Helen Morris

Each of us, in our different fields and depending on our different roles, must take on new and broader responsibilities.

Key points:

- Sofidel considers sustainability as a strategic factor for its development. The company aims to: increase its competitiveness in the mid-to long-term; contribute to an improvement in the quality of life of all its employees and the communities in which it works; to perform an increasingly significant environmental, social and economic role.
- Less is more: the company's final goal is to create products with an ever shrinking ecological footprint, yet ever increasing performance. Technology innovation is the key to achieving this goal, developing products that enclose a lower share of natural capital, thanks to higher functional qualities and innovative performance.

Results:

- -19.1%: As a member of the WWF Climate Saver programme, reduction in carbon intensity (2009/2016). In 2015, - 17.8%;
- 100%: of pulp certified by independent third parties with forest certification schemes (2016). In 2015, 99.97%;
- 7.0l/kg: litres of water used on average per kg of paper produced (2016). In 2015, 7.3l/kg.
- WWF Climate Saver new 2020 targets:
- -23%: CO2 emissions reduction compared with 2009;
- -13%: indirect emissions compared with 2010;
- 8%: share of renewable energy sources against the total annual amount of fuel used.
- Fourth growth phase: In Europe, the current phase of strategic growth means increased production at existing sites in Europe. Many sites were designed to be significantly expanded. Our production sites in Germany, France, Poland, Great Britain and Spain, for example, have sufficient space to double their size and, in some cases, even triple. Organic growth is, therefore, more continuous and less disruptive.
- In the US market, Sofidel is planning to replicate the strategy already implemented as part of the company's internationalisation process in Europe, by launching a few new greenfield investments and with new acquisitions.
- Organic growth in Spain – one NTT Valmet-supplied paper machine by Q3 2018, plus three Constellation machines by Perini by 2017. Launch of Regina brand in Spain.
- By integrating sustainability, expects the following 10 main advantages: Cost reduction, motivated personnel and qualified workers, access to tax breaks, higher market standards, customer satisfaction, responding to clients' needs, anticipating more stringent regulation, increased credibility and trust, accessibility to capital and enhanced reputation.

Accelerating globalisation in the tissue business via new players and growing intercontinental trade flows.

Esko Uutela, principal-tissue, RISI, Germany

The global tissue business has shown its growing dynamics in the past few years. The industry reaches new peaks year after year with an average annual growth rate of 3.5% per year. This very positive development has been noted by many investors, who are not coming only from the tissue or hygienic product manufacture, but also from other branches in the pulp and paper business, as

well as totally new players having interest to diversify and enter the tissue sector. Tissue belongs to the least capital intensive segments in the pulp and paper industry, which has facilitated also smaller companies to consider investments in tissue.

The new dynamics of the tissue business has changed global competitive environment very drastically in the recent years. Not only new suppliers from different continents have emerged, but also untraditional trade flows have developed. Today, China is the largest tissue exporter globally, after earlier dominance by Italy. New investments continue, driven by both existing and new players, some of which have grown very quickly with aggressive expansion plans by companies with solid financial background. Indonesia and Turkey also belong to the largest tissue exporters today, which was not the case still 10 years ago. New investments continue, driven by both existing and new players, some of which have grown very quickly with aggressive expansion plans by companies with solid financial resources behind. The competitive environment is tough and the industry structures are changing quickly so that we cannot claim dynamics are missing from the global tissue business today! But some new risk factors have recently emerged: Brexit, and what will happen to free tissue trading with increasing protectionism and possible penalty duties by new administrations, that of Trump in particular? Will tissue exports to the USA be drastically cut and what could this mean?

Key points:

- World tissue consumption – market is dynamic. China has passed Western Europe in market size, while Asia Far East and Eastern Europe soon are now larger than Japan, China since 2015 the largest producer country.
- Global Consumption: 36.3 million tonnes (2016p),
- Growth in the global tissue market – relatively stable growth until the Great Recession in 2008, volume growth slightly above 1.0 million tonnes per year, recovery took a few years but 2015 was a good year due to China, North America and Western Europe. Preliminary data suggest that 2016 also strong.
- Anticipated growth in the global tissue market – tissue consumption benefitting from improving global economic growth, but there are also uncertainties ahead.
- Expected regional volume growth of tissue consumption, 2015-2025; Volume growth dominated by China, followed by Latin America. North America expected to have very positive trend, Brazil's recovery helping Latin America. 40% of global growth in China!
- Indonesia and Turkey with recent major investments have invaded the world's top tissue producer list.
- Several companies have expanded strongly, APP and SCA in particular, followed by Hengan, Sofidel, CMPC and WEPA.
- China APP and SCA have been the most aggressive players in the past 10 years while North Americans have used more defensive and margin-focused strategies.
- New players entering the tissue sector.
- Long-term growth trends in the global tissue market: International trade in tissue shows higher growth rate than tissue consumption, a clear sign of business globalisation. Parent roll trade has accelerated in recent years.
- The USA is the largest tissue importer of the world and until now rather open for any foreign attractive offers. In Europe, the same applies to Germany and the UK.



- China and Italy are the main global tissue exporters, followed by Germany.
- Canada continues to be the main US import source for tissue, but China has jumped into second position ahead of Mexico and Indonesia.
- BREXIT: uncertainty. Nobody knows exactly the possible influences of Brexit on different businesses, and tissue is no exception.
- There is a lot of commotion in the UK regarding Brexit. Possible effects on the future of the tissue business include: effects of weaker currency on consumer behaviour due to lower purchasing power (At-Home) and squeezing budgets in the AfH sector; industry, investments and financing issues, threats to the current free trade agreements; consumer confidence at a low level, tissue as a daily necessity may not be the product most sensitive to changes in purchasing behaviour and we cannot exclude the possibility that consumers could slow ongoing product upgrading and perhaps even exclude some products other than toilet tissue from their normal shopping list; the AfH sector is always more sensitive to the economic cycle than the At-Home sector and any economic slowdown has an immediate effect on this business sector—buyers' budgets are often squeezed and downgrading in quality is also common.
- Additional effects include: if the financial centre of London sees major departure of banks to other countries, this alone could result in unemployment and fewer jobs could have a negative effect on tissue consumption; the domestic tissue industry has not made any major investments recently and in the current uncertain conditions the overall environment for financing investments, especially those of smaller producers and converters, is not favourable; the UK is one of the main tissue importers in the world and almost half of tissue sold in the UK is based on imports, but the weaker currency may make them less attractive to export suppliers, which could help the domestic industry; what will happen to the current free trade? The UK has been open to imported goods and if any import duties emerge for tissue, it could help the domestic industry but not necessarily total consumption.
- POSSIBLE TRUMP EFFECTS: tissue may not belong to the most critical product groups but if some restrictions or penalty duties will be launched with selected trading partners, they may concern all imports and also have influence on tissue trade; US tissue imports are approaching the one million benchmark and some of the main tissue trading partners, including China, Indonesia and Mexico in particular, could

be affected by duties; for the domestic (and Canadian) tissue industry major penalty duties for tissue imports could mean need to invest even more to be able to replace the declining import volumes.

- CONCLUSION: the global tissue business continues to grow with steady growth rates and without any major substitution threats seen in some other paper business sectors; tissue is no longer a locally manufactured products as 20 years ago but an increasingly internationally traded commodity; there are clouds on the skyline through new political trends with protectionism and populists possibly becoming effective.

Global Tissue Markets in 2017 and beyond: realities, challenges and opportunities in the increasingly-complex demand side of the marketplace

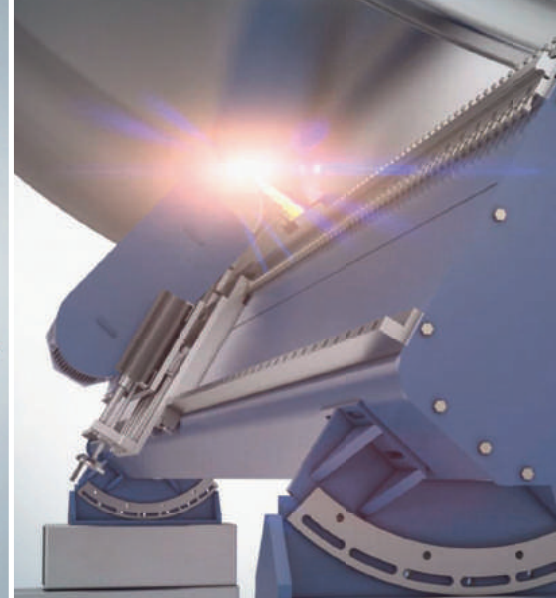
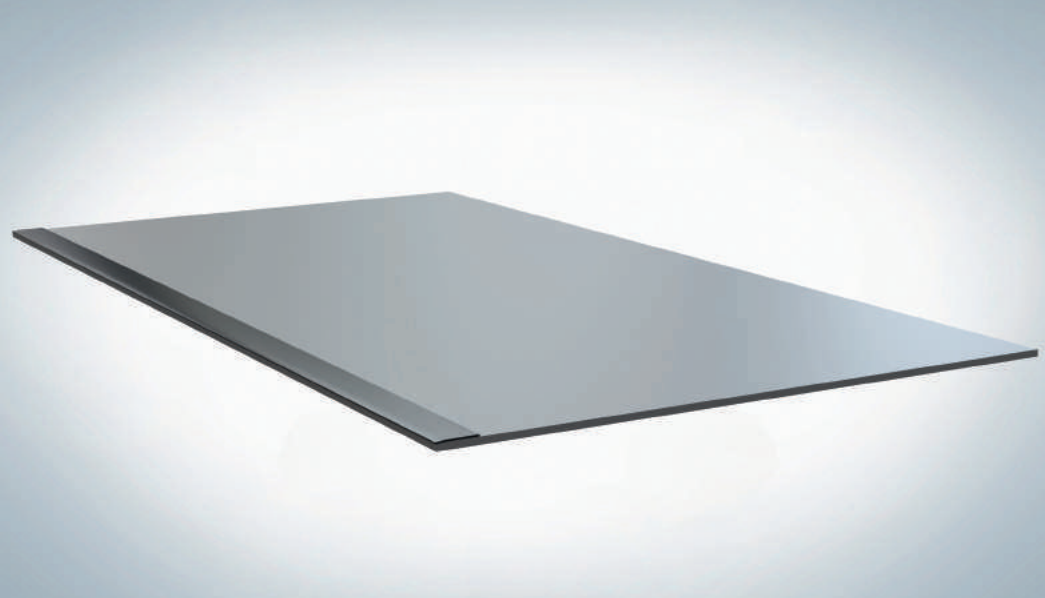
Svetlana Uduslivaia, head of industry research, Euromonitor International, USA

Tissue products in the developed markets continue to face a number of challenges, from saturation and slow population growth that affect retail sales to structural changes that impact the AfH channels. At the same time, the emerging and developing regions offer a significant potential for further expansion. With estimated unmet global tissue potential at well over 15 million tonnes in retail alone, the global marketplace offers a solid platform for the future industry growth. However, in the increasingly complex and diverse world of consumer and AfH tissue marketplace, the realities, challenges and opportunities for growth vary from market to market.

Key points:

Geographies: opportunities in the developing markets, with India as one of the key growth markets; China is the world largest tissue market by total volume for combined retail and AfH and remains open to value-added tissue products; Developed regions see only modest increase, with limited unmet potential left for future growth.

Retail: fundamentals beyond industry control – GDP and population – play key role in retail demand in developed regions. At the same time habit formation and soft drivers are instrumental in the developing regions, thereby providing opportunities to drive consumption through innovation, improved retail access and consumer awareness; pricing pressures, including private label, strong in developed regions and are becoming more



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By Tissue World senior editor **Helen Morris**

notable in the developing markets, in part supported by expansion of modern retail in urban areas.

AfH: growth in developed regions hindered by saturation, structural changes in the institutional space, and budget cuts; demand in developing regions is supported by a host of factors, including employment expansion across institutional channels; opportunities in higher quality products in the developing regions, and stronger focus on customisation in the developed countries.

The Retailer's Power: a major buyer's view on market developments

Patrick Boateng, senior buyer for Tissue Paper Products, Major Supermarket, USA

The retail environment is going through a period of rapid change. The landscape has become more incredibly competitive than ever, as there is no single formula to serve the specific needs of every customer. Retailers are navigating the changing landscape and engaging the customer through actions such as:

- Using size and capacity to influence actions in other channels to create value for the customer.
- Strengthening digital capabilities to increase efficiency and convenience.
- Improving transparency of supply chain.

How are these changing landscapes, and the actions mentioned above, impacting the tissue paper products category?

Key points:

With a focus on the North American retail environment:

- The world's four largest retailers maintained their positions on the leader board in 2015.
- Industry dynamics in terms of mergers and acquisitions, divestitures and others shuffled the rest of the top 10.
- Walmart continued its dominance as the world's largest retailer.

The landscape has become more incredibly competitive than ever.

- Increased channel fragmentation and non-store retail on the rise.
- Mix bag of retail formats targeting the sophisticated customer.
- A combination of multifaceted dynamics are going on today, all in the effort to serve the customer.
- Today's consumer-driven trends include the following: Online ordering, personalisation marketing (loyalty programmes). Social media marketing.

Retailers' response to the changing landscape

- Consolidation, mergers and acquisitions, in order to stay competitive.
- Digital and online marketing – retailers are using advanced technologies and online to better serve customers.
- Supply chain transparency with value stream efficiencies.
- Impact on Tissue Paper Category
- Rationalisation of product range to reduce complexities – responsible sourcing through chain of custody certificate.
- Shelf space allocation for private label – pressure to reduce cost.

Impact of the changing landscape:

- Sustainability has gained traction with consumers and retailers. Certification and new technology. Consumers – Millennials

especially – want to buy from socially responsible companies.

- Consumers want the convenience of online purchases, larger packs, custom size.
- Today's consumers place a high value on cost and quality.
- Innovation
- New heights of innovation for convenience.
- Enhanced absorbency, multi-purpose usage for scrubbing, napkins as well as towels.

How to meet the challenges of the changing retail landscape

- Set cost reduction goals.
- Develop smart, transparent supply chains to increase supply efficiency in order to
- keep costs low.
- Set strategic priorities for cost improvement and support clients' promotional activities as competition won't wait.
- Provide innovative products that consumers want in order to fulfil their multipurpose tissue needs.
- Be ready at all time, changes will not go away. Listen to your retailer customers' complaints and create immediate solutions.
- Speed – Improve process execution and performance of your products.

AWARDS: Hungary's Vajda Papir and Spain's LC Paper awarded prestigious awards during Tissue World Milan

Hungary's Vajda Papir and Spain's LC Paper have been awarded prestigious awards during Tissue World Milan 2017.

The Mill Awards recognise marketing strategy and energy efficiencies. Vajda Papir won the 'Best Tissue Marketing Strategy Award' with its "Oops!" brand and the marketing one-liner: "Whatever happens!"

The mill has developed the 'Oops' sanitary paper product line, with the aim of making a high quality product that is affordable to all.

LC Paper was awarded the Most Energy-Aware Mill as the company has demonstrated a strong history and track record of energy reductions since 1993.

In 2012, the company developed tissue paper OnePly, replacing two layers with a higher weight layer. This resulted in a 19% reduction in energy consumption.

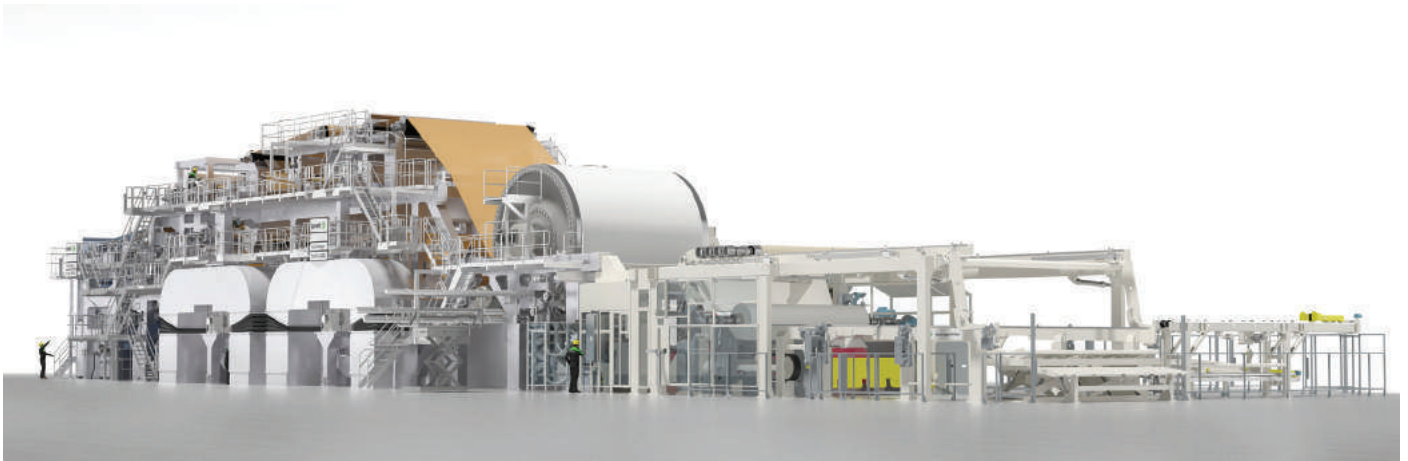
In 2014, the site's PM2 was modified for OnePly, with two presses at 90kN/m and 120kN/m, a Steel Yankee with high conductivity and a hood with the use of the gases of the second gas engine of the cogeneration plant.

This resulted in an energy consumption of 1,100kWh/t, which meant an additional 35% saving.

In 2016, a new converting machine was started-up and using OnePly technology it created 8" autocut rolls with a length of 800ft, weighing 1.7 kg, in cartons of six rolls. This resulted in a savings of 45% in transport energy.



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Above: Delivery of Irving's new PM is expected in 2018 and once up and running will increase the company's production of premium household paper products

AMERICA

Irving Consumer Products boosts premium product capacity

Irving Consumer Products has invested in an Advantage ThruAir tissue production line.

Supplied by Valmet, the machine increases Irving's capacity to provide premium household paper products to the North American market.

It will be delivered in 2018 and the value of the order will not be disclosed.

Valmet has previously delivered ThruAir machines to Irving in Fort Edward, New York, and Toronto, Ontario, as well as major rebuilds of TM1 and TM2 tissue machines in Saint John, New Brunswick.

Robert K. Irving, president of Irving Consumer Products, said: "The new TAD machine will help Irving Consumer Products continue to grow and deliver premium quality tissue paper products to our customers."

Valmet's delivery will comprise a complete tissue production line with stock preparation equipment.

The new line will include an Advantage ThruAir tissue machine, including an OptiFlo II TIS headbox, ThruAir Dryers and Air system and an Advantage SoftReel reel. The delivery also includes mist and dust systems, automation systems, basic mill engineering, and advisory services.

Irving Consumer Products is one of North America's leading manufacturers of household paper and baby diaper products.

"The new TAD machine will help us continue to grow and deliver premium quality tissue paper products to our customers,"

Irving Consumer Products president Robert K. Irving

Its companies include Irving Tissue and Irving Personal Care. Irving Tissue produces premium household store brand paper products for many of North America's top retailers, in addition to some of the top-selling tissue brands in the marketplace. Irving Personal Care manufactures baby diapers and training pants in Canada.

Sun Paper boosts 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.

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 products manufacturer based in Duncan, South Carolina.

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

Resolute boosts capacity with Calhoun start-up

Resolute Forest Products has boosted its private label capacity with the start-up of its new tissue machine in Tennessee. The first tissue parent roll was produced on 28 February 2017.

It will continue its scheduled ramp-up through 2017 and is expected to be producing at maximum capacity toward mid-2018.

With its fully operational converting facility, converted tissue products sold from Calhoun are now manufactured entirely from parent rolls produced on-site.

The Calhoun tissue operation was built at Resolute's pulp and paper mill and has the capacity to manufacture 60,000tpy of premium private-label tissue, including bath and towel, aimed at the at-home market.

It has three converting lines and will integrate pulp from the existing Calhoun pulp mill.

"It gives us increased throughput on a broad range of products from a single machine."

Sun Paper's Joe Salgado on the company's new wrapper line



Above: WEPA Group's Piechowice, Poland-based PM will strengthen the company's position in the Eastern European market

POLAND

WEPA Group boosts capacity with Piechowice start-up

WEPA Group has started-up a Toscotec-supplied paper machine in Piechowice, boosting the group's production capacity to 750,000tpy.

Following a successful construction phase, the first paper was produced on 11 February and made into toilet paper. The new AHEAD 2.0S tissue paper machine is equipped with an inlay headbox, double press, TT SYD-15FT steel drying cylinder, Toscotec Miltech cover and vapour and dust extraction system. Martin Krengel, chief executive of the WEPA Group, said: "Our willingness to

which is primarily processed for the consumer industry and the away-from-home sector, with products including toilet paper, kitchen roll and paper towels, primarily for the Polish market.

This was done within the planned investment budget of €30m.

Janusz Brylinski, plant manager in Piechowice, said: "Since the WEPA Group took over the location in 2005 there has been continuous investment.

More than €65m euros in the past six years. This next step of having our own tissue paper machine expands our production programme and secures jobs in the region."

The WEPA Group is strengthening its competitiveness in its capacity as the third biggest European manufacturer in the sanitary paper market.

AUSTRIA

Norske Skog in talks with potential partner for tissue conversion project at Bruck mill

Norske Skog is in talks with a potential partner for its project to convert PM3 at its Bruck mill in Austria from newsprint to tissue, the firm's CEO Sven Ombudstvedt said.

Ombudstvedt said previous discussions with a potential partner had been terminated and talks are now underway with a German-speaking partner.

He said: "It is still a work-in-progress, and we hope to finalise something this quarter." Ombudstvedt confirmed Norske Skog's target is still to convert the machine in Q4 this year, as previously announced, but said that this would depend on the outcome of the discussions.

"Whether it will be the last quarter [of 2017] or the first quarter of next year, I cannot really say, but we are still working towards that target."

During its 2016 results presentation, Ombudstvedt stressed that the firm "still needs financing to carry out the [Bruck conversion] project." Norske Skog announced its intention to convert PM3 from newsprint to tissue production in July 2015. It then held discussions with Italy's Roto-cart on a potential partnership, but talks ended without a deal in April 2016. The Bruck paper mill produces lightweight coated paper, mediumweight coated paper and newsprint and has a capacity of 400,000tpy.

News from www.risiinfo.com

"Since the WEPA Group took over the location in 2005 there has been continuous investment. More than €65m euros in the past six years. This next step of having our own tissue paper machine expands our production programme and secures jobs in the region."

Janusz Brylinski

invest in state of the art technology is part of our future-oriented corporate strategy. "By starting up this first tissue paper machine in Piechowice, we can further optimise our supply chain and strengthen our position in the highly promising Eastern European market."

With an annual production capacity of 32,000 tonnes, the unit increases the location's overall capacity to a total of 65,000 tonnes of raw paper per year,

With a total of 20 paper machines now in use and a production capacity of around 750,000 tonnes per year, more than 400m consumers in Europe will be supplied with high-quality tissue products.

Mancheng Paper (formerly known as Tiantian Paper) will install two new tissue production lines at its sole mill in Baoding city, Hebei province, northern China. Chinese supplier Liaoyang Allideas Paperteck has been signed up to provide the units.

CHINA

Mancheng Paper to add two new TMs to Baoding mill

Mancheng Paper (formerly known as Tiantian Paper) will install two new tissue production lines at its sole mill in Baoding city, Hebei province, northern China. Chinese supplier Liaoyang Allideas Paperteck has been signed up to provide the units. Each of them has a width of 3.55m and a design speed of 1,200m/min, and is able to churn out up to 65 tonnes of tissue paper per day. Their start-ups are scheduled for September and November. Mancheng Paper currently runs two tissue machines with a combined capacity of around 20,000tpy at the same site.

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 Paperteck, 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

Guangxi Tianlifeng starts new tissue machine in Nanning

Guangxi Tianlifeng has started trial runs on a new tissue machine at its sole mill in Nanning city, Guangxi autonomous region, in southwestern China. The first sheet of paper rolled off the TM last week.

The unit, provided by Shanghai Qingliang Industry, has a width of 3.5 m and a design speed of 1,300m/min. It is able to churn out up to 20,000 tonnes of tissue per year.

The company fired up another 20,000tpy tissue machine at the same site in early January.

The start-ups have boosted its total tissue capacity to around 75,000tpy.

News from www.risiinfo.com

GERMANY

WEPA invests in new converting line

German tissue giant WEPA is set to raise the converting capacity at its Kriebethal tissue mill in Saxony.

The company is investing in a new line for cosmetic wipes, which will reportedly double the site's converting capacity.

It is also building three new warehouses on an area it acquired from the neighbouring Papierfabrik Kübler & Niethammer.

The cost of the investment was not revealed. The new converting line is expected to start operating in the third quarter of this year.

WEPA's Kriebethal mill can produce some 85,000tpy of tissue on two machines.

News from www.risiinfo.com

UNITED ARAB EMIRATES

Star Paper mill targets high quality tissue production with investment

Star Paper Mill is to increase its production capacity after signing a contract for the supply of a turnkey plant. Supplied by Recard, once up and running the investment will produce around 38,000tpy of high quality tissue products.

The plant will be equipped with two stock preparation lines (long and short virgin fibre) and two rewinders with variable-crown calendar to enhance paper softness.

The Crescent Former will be provided with a latest-generation shoe press. Start-up is scheduled for Spring 2018.

EUROPE

Kemira increases prices of polymer products across all European countries

Kemira has increased the price for its polymer product line by 4-8 % across all European countries.

It said the price increase is "necessary due to overall significant cost increase and global tight supply of many key raw materials across our entire polymer product line".

These included increases in price of major raw materials for polymer manufacturing; several building block chemicals on shortage due to force majeure of chemical plants, low stock situations and unplanned maintenance, as well as increased cost of sea freight due to supply reduction and reduction of available shipping routes, fluctuating currencies and exchange rates as well as changes in trade conditions."

The adjustment will be effective immediately or as customer contracts allow.

Kemira said the price increase is necessary due to "overall significant cost increase and global tight supply of many key raw materials across our entire polymer product line". These included increases in price of major raw materials for polymer manufacturing; several building block chemicals on shortage due to force majeure of chemical plants, low stock situations and unplanned maintenance



Above: South Africa's Universal Paper's start-up team with PMP staff: the investment by the family-owned business was to move its production to the next level

SOUTH AFRICA

Universal Paper expands capacity with start-up

Universal Paper Manufacturers has successfully started up its turn-key green field tissue mill at its Ga-Rankuwa mill. Start-up of TM5, a PMP-supplied Intelli-Tissue Advanced 1600 tissue making line, was achieved in February. The line has a total capacity of 28,000tpy, an operating speed of 1,600m/min and a reel trim of 2,670mm. Depending on the tissue grade, the basis weight at reel from 13 to 40gsm.

The investment was made by the family-owned business to move its production to the next level as part of its aim to become the preferred tissue supplier in the Southern Africa region, offering a range of ultra-premium, 100% virgin fibre tissue paper products.

Universal Paper's branded products are FSC-certified and include Dinu, one of the country's leading household tissue brands.

PMP's scope of delivery covered: collaboration with the building design engineers, a tissue making line, all auxiliary systems, field installations as well as a rich scope of engineering services.

Universal Paper Manufacturers is owned by Universal Paper and is the sister company to Universal paper & Plastics (UPP).

Both companies are still family owned and established by the Sher family in 1950.

Hygienic Tissue boosts capacity with investment

Hygienic Tissue has started up a Toscotec-supplied MODULO-PLUS tissue machine at its Pietermaritzburg plant, in South Africa.

With an annual production capacity of 27,000 tonnes, the line will increase the mill's total production capacity by threefold.

The company provides a wide range of products for hygienic use and AfH market, made from 100% virgin pulp as well as from recycled paper.

Toscotec's scope of supply included the approach flow system, featuring the ultimate TT SAF technology, a MODULO-PLUS tissue machine with single-layer

headbox, single press configuration and TT SYD-12FT with TT Milltech-MYH (Monosystem gas heated hood), Turbo Blower and Core Extraction unit.

The supply also included an electrification and controls package and the steam and condensate system.

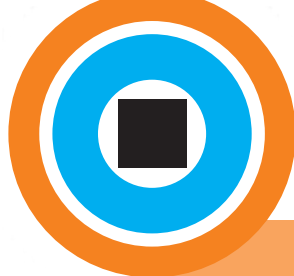
Hygienic Tissue Mill produces higher value disposable paper products including toilet tissue, napkins, towels, facial and jumbo rolls.

Since 2000, it has been investing in state of the art manufacturing machinery.

This is the first MODULO-PLUS tissue machine installed by Toscotec in South Africa, and the supplier said it increases Hygienic Tissue Mill's capacity to make it the largest independent producer of tissue in South Africa.



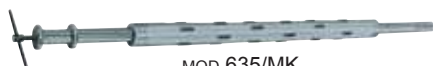
Above: With an annual production capacity of 27,000 tonnes, the line will increase Hygienic Tissue's total production capacity by threefold.



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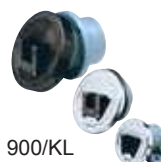
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PORTUGAL

Trevipapel Group boosts capacity with Steel Yankee investment

Trevipapel Group has invested in a Toscotec-supplied tissue line at its Paper Prime mill in Vila Velha de Rodão. The Steel Yankee Dryer TT SYD-16FT is due to be started-up in the first quarter of 2017 and will produce the company's Joker brand of hygiene professional products (AfH) for distribution in Portugal.

Paulo Lobo, chief executive of Paper Prime, said the main benefits of the line include a higher evaporation rate resulting in a 30% increased drying capacity for the Yankee Dryer, and energy savings with lower consumption and less power required for the drive. He said: "We have evolved from a small company to be one of the main manufacturers of professional hygiene products (AfH) in Portugal."

"The new machine in Vila Velha de Rodão will be the third unit with an average annual production of 32,000tpy, producing for the domestic market and exporting its Joker brand products to Spain, Central Europe, Africa and South America."

ITALY

Cartiera Ferrania to double capacity with installation of new tissue machine

Cartiera Ferrania will install a new tissue machine as well as a cogeneration plant, the Italian newspaper La Stampa reports. The mill currently produces some 30,000tpy of tissue paper and its production capacity will double after the investment.

According to the newspaper, the mill recently obtained an Environmental Assessment (VIA) from the Liguria region and now needs an integrated environmental authorization (AIA) from the Savona province as well as other authorizations from the municipality of



Above: Trevipapel Group's start-up staff on site in Vila Velha de Rodão, Portugal

Cairo Montenotte.

The Liguria region linked the permit to periodic monitoring of the facility, the use of the best available technology and the use of rail freight transport.

The €10m investment will also include the installation of a new 4.3MW cogeneration plant.

News from www.risiinfo.com

Mtorres acquires Italian automatic tissue line manufacturer Universal Tissue Technology

Mtorres has acquired Italian automatic tissue line manufacturer Universal Tissue Technology (UTT). The company will operate under the name of Mtorres Tissue. This new brand will supply and serve customers worldwide with a full range of highly flexible and productive complete automatic tissue converting lines, both for Consumer and AfH segments.

Luis Izco, Mtorres general manager, told TWM: "We had limitations previously and we wanted greater access to a larger portion of the market. We had to either develop a complete line or make an acquisition, so with the purchase of

UTT we now have a complete product offering. We can now find and secure our place in the market."

Founded in 1975, with 800 staff members and more than 700 customers and thousands of machines worldwide, Mtorres specialises in Splicers, Unwinders and Rewinders for all industry sectors that involve web handling such as tissue, corrugated, flexible packaging, liquid packaging, etc. UTT was created in 2013 and is a young and growing Italian Company with a highly-experienced team in the design, manufacturing and service of complete automatic tissue lines.

Ariete increases capacity

Italian tissue manufacturer Ariete has ordered a new MODULO-PLUS machine from Toscotec for its paper mill in Cava dei Tirreni, Salerno.

The new tissue machine replaces the existing one and start-up is scheduled for July 2017.

The scope of the supply includes a MODULO-PLUS in Crescent Former configuration with single-layer headbox. Approach flow, electrical and control systems together with dismantling of the existing machine and installation of the new one, supervision and assistance for start-up will all be performed by Toscotec. Ariete has been working in the field of tissue paper since 1965, manufacturing qualitatively high standard products capable of meeting the different and changing demands of the market.

Cartiera Ferrania will install a new tissue machine as well as a cogeneration plant, as part of a €10m investment. The mill currently produces some 30,000tpy of tissue paper and its production capacity will double after the investment.

The paper mill, headquartered in Italy in Cava dei Tirreni (Salerno), spans along a property of 14,000m² and has a production capacity of 22,000tpy.

The company offers its customer a wide range of semi-finished products for hygienic use and for use in the food industry, with productions that vary from 15 gr/m² to 38 gr/m² and from 1 to 4 plies of pure cellulose.

Traditionally oriented towards innovation and quality in full respect of people and of the environment, Ariete has decided to make this investment pursuant to a new strategy focused on maximizing efficiency.

"Toscotec's offer turned out to be the best on a technological level and the most suitable to our needs. To be competitive on the market, we must have the proper instruments: we are convinced that the new MODULO-PLUS is the technical solution that we were looking for and that will allow us to increment quantity and quality", said Ariete chairman Nicola Salsano.

JAPAN

Daio announces 10% hike for its household paper range

Daio Paper has announced its intention to hike all of its household paper prices, on shipments starting from 1 May.

The 10% hike will apply to tissue, toilet paper, kitchen roll, and all other household grades.

Daio ascribed the hike to rising costs.

News from www.risiinfo.com

CANADA

Cascades launches household tissue range

Cascades has targeted the consumer market with the launch of a range of household tissue products.

Consisting of three varieties of toilet paper and two varieties of paper towels, the products will gradually replace the current generation of their Cascades counterparts.

The brand-new line of household paper products includes Cascades Fluff and Cascades Tuff.

Mario Plourde, Cascades president and chief executive, said: "Cascades is launching a line of toilet paper and paper towels that is among the softest and strongest on the market, while

"To be competitive on the market, we must have the proper instruments: we are convinced that the new MODULO-PLUS is the technical solution that we were looking for and that will allow us to increment quantity and quality."

Nicola Salsano

maintaining all of the green properties our products are famous for.

"This will give consumers the comfort and performance they're looking for in a product, while protecting the environment."

Cascades Fluff toilet paper and Cascades Tuff paper towels are now available in grocery stores and pharmacies in Québec as well as in many stores across Canada.

UK

Sofidel UK starts-up latest-generation tissue rewinder

Sofidel UK has boosted its tissue production capacity after it started up a tissue rewinder at its Lancaster-based site.

Supplied by A.Celli, the latest-generation tissue rewinder is a Mod. 865 and 3.4m wide.

The Sofidel Group is one of the leading manufacturers of paper for hygienic and domestic use worldwide.

It has subsidiaries in 13 countries – Italy, Spain, the UK, France, Belgium, Germany, Sweden, Poland, Hungary, Greece, Romania, Turkey and the USA.

EGYPT

Hayat Kimya boosts presence with Egypt start-up

Turkey's Hayat Kimya has boosted its presence in the Middle East after it started-up a PM at its new mill in Egypt. The Valmet-supplied line will produce 70,000tpy of high quality facial, toilet and towel tissue.

It has a width of 5.6m and a design speed of 2,200m/min and is part of the company's expansion plan in the region, where it also has tissue mills in Turkey, Iran and Russia.

Valmet's scope of delivery comprises a complete tissue production line featuring stock preparation systems, an Advantage DCT 200 TS tissue machine

and two Valmet Focus Rewinder systems. The tissue machine is equipped with an OptiFlo headbox and a cast alloy Yankee cylinder. It is also featured with the Advantage tissue technology including a ViscoNip press, an AirCap hood prepared for co-generation, a WetDust dust system, sheet transfer system and a SoftReel L reel.

Hayat Kimya is part of the Hayat Group which operates in the chemicals, hygienic products, paper and wood-based industries.

The Hayat tissue facilities today have a paper production capacity of 210,000 tonnes and a converting capacity of 135,000tpy.

Through the new start-up the total production capacity of Hayat Kimya will reach 420,000 tonnes.

BRAZIL

Suzano to sell converted tissue products; investment in tissue increases to \$176.1m

Pulp and paper producer Suzano is to acquire converting equipment that will enable it to sell finished products in the tissue segment.

The company is currently installing two tissue paper machines (PMs) with combined capacity of 120,000tpy at its Mucuri and Imperatriz units, scheduled to kick off in the third and fourth quarters of 2017.

Initially, Suzano's plan was to only produce tissue jumbo rolls to be converted at clients in Brazil and abroad. The company said: "With the decision to sell finished products, the estimated total investment in tissue has been revised from Real 425m to Real 540m considering total annual tissue production capacity of 120,000 tonnes and maximum annual conversion capacity of 60,000 tonnes."

Ramp-up of tissue production will be gradual.

News from www.risiinfo.com

GLOBAL

APP boosts capacity with TM investments

Tissue giant Asia Pulp and Paper (APP) has invested in eight new tissue machines.

Supplied by Toscotec, the scope of supply includes AHEAD-2.0L crescent former tissue machines with a net trim width of 5.6m, 22ft diameter Steel Yankee Dryer TT SYD-22FT and steam heated Yankee hoods.

Two of the TMs are scheduled to come on stream in the fourth quarter of 2017 and the first quarter of 2018.

The remaining six are planned for delivery between the third quarter of 2017 and the first half of 2018.

Each tissue machine is capable of producing, among other tissue grades, 300tpd, or around 100,000tpy of high gsm tissue.

The TMs are Toscotec's most recent innovation, PRODERGY, a concept developed from the company's AHEAD-2.0 line which the supplier said "significantly boosts production and cuts down on the energy costs".

Each of APP's eight new tissue machines are capable of producing 300tpd, or around 100,000tpy of high gsm tissue. The TM supplier said the lines are its latest innovation and will "significantly boost production and cut down on energy costs".

PCMC responds to customer demand with launch of tissue embosser-laminator Omnia

PCMC has launched Omnia, a new tissue embosser-laminator that the supplier said will "offer customers' flexibility and safety in a small footprint".

According to the supplier, the Omnia, which in Latin means "all, everything," will deliver "safety, flexibility, fast changeovers and productivity for customers, all in a compact footprint".

Jason Hilsberg, tissue sales director at PCMC said: "Other highlights include an open design for accessibility and ergonomics, the elimination of hydraulics, modularity for easy upgrades and automatic roll changes.

"The Omnia proves that customers

really can have it all in their embosser-laminator.

"Fuelled by the desire for more simplicity and safety, our design meets those needs on all levels.

"The accessibility of the rolls from one location makes roll changes and maintenance easier and safer, and the Omnia takes up 25% less floor space than our previous designs.

"Despite its smaller size, it still delivers all the features our customers need to compete in the marketplace today without sacrificing quality."

The first Omnia is currently in production and will be available for demonstration in June 2017.

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SCA to become two listed companies: forest products company SCA and hygiene company Essity

SCA has said it will be split 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

SCA has said it will be split 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.

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.

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."

"We look forward to an exciting future for our two strong listed companies."

SCA was founded in 1929 and in 2016, the group's hygiene business accounted for approximately 86% of its net sales, and the forest products business for approximately 14%. 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.

Sales are conducted in approximately 150 countries including TENA for incontinence products and Tork for AfH

tissue, and under regional brands such as Libero, Libresse, Lotus, Nosotras, Saba, Tempo, Vinda and Zewa.

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

Sofidel reports 2016 results

The Sofidel Group has reported a turnover increase in 2016 of 1.8%, up from €1,809m to €1,842m.

EBITDA grew from €207m in 2015 to

€237m in 2016, with net profit rising from €63m in 2015 to €83m in 2016.

In a statement, the company said finished product sales market trends showed growth for all lines of business, "well above the sector average".

It added there was an increase in all figures linked to monitoring environmental performance.

The reduction of specific emissions (carbon intensity: quantity of CO₂ per kilogram of paper produced) was -19.1% compared to -17.8% in 2015; there was a decrease in the average water consumption figure, which in 2016 was 7.0 l/kg compared to 7.3 l/kg of 2015 (sector benchmark: 15-25 l/kg), and positive growth in the percentage of procurement of pulp certified by independent third parties with forest certification schemes, which increased from 99.97% to 100%.

Stax launches Ultima roll wrapper technology

Stax Technologies has launched Ultima, a product it said is a revolutionary roll wrapping machine. According to the supplier, the wrapping method "is different from any other machine in the tissue converting industry".

"It is the first roll multi wrapper capable of running more than 200 packs/min in real production while maintaining the highest pack quality."

Stax Technologies

A spokeswoman for the company said: "The result of this new technology and this advanced wrapper is reduced energy consumption, fast and easy format changeover and better quality of the final product at high speed."

"It is the first roll multi wrapper capable to run more than 200 packs/min in real production while maintaining highest pack quality. At the same time energy consumption is reduced more than 30%."

Domtar to increase NBSK, SBSK, and fluff pulp prices \$40/tonne, effective 1 May

Domtar informed North American customers that its paper grade bleached softwood kraft (BSK) prices will increase \$40/tonne, effective with May shipments, industry contacts told RISI.

The company also announced a \$40/tonne price increase on fluff pulp to domestic and European customers.

Montreal-headquartered Domtar announced its northern bleached softwood kraft (NBSK) list price would increase to \$1,120/tonne with the \$40/tonne rise.

It slated southern bleached softwood kraft (SBSK) pulp at \$1,080/tonne, also up \$40/tonne.

In fluff pulp, Domtar told customers in both North America and Europe that its list price will rise to \$1,120/tonne, up \$40/tonne.

Its latest fluff price increase is the industry's second known hike on the grade for May business. Competitor International Paper (IP) announced a \$40/tonne fluff price increase, with a \$1,120/tonne list that's effective in North America and Europe on 1 May.

Domtar has an estimated 1.8m tpy of market pulp capacity at mills in Canada and the USA. It produces NBSK, SBSK, fluff pulp, and southern bleached hardwood kraft (SBHK).

News from www.risiinfo.com

Brazil: P&P on a sharp positive trend despite country's roller-coaster economic performance



Bill Burns

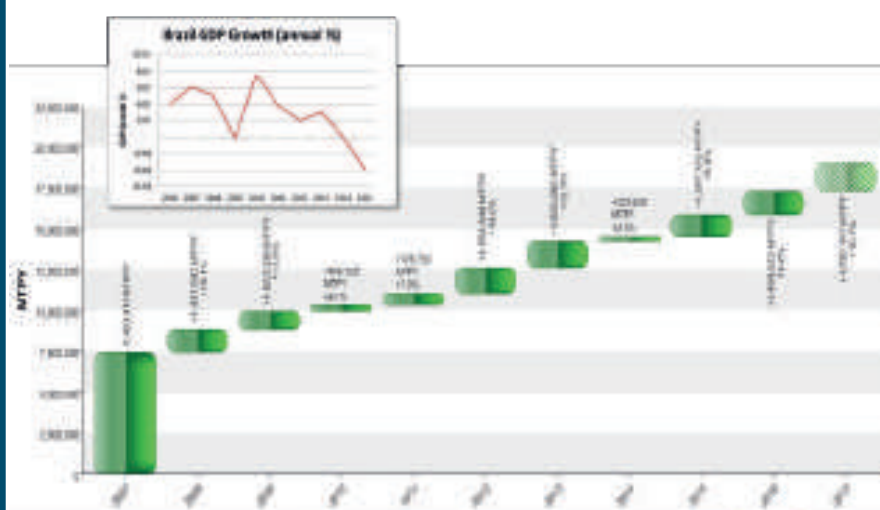
Senior consultant,
Fisher International

Brazil's economy was in a strong growth cycle when the global financial crisis of 2008 hit, when its GDP growth rate plummeted from 4+% down to zero. However, recovery from the crisis was swift and strong with GDP bouncing back 7.5% in 2010. Since then, the economy has been contracting year to year dropping by as much as -3.8% in 2015 (Figure 1 insert). Forecasts suggest yet another period of recovery for 2016 and beyond. With Brazil's economy struggling, one would expect some difficulty for the pulp and paper industry growth as well. Not so in Brazil. Pulp and paper businesses have been on a sharp positive trend line throughout the period leading into and beyond the global financial crisis. Most remarkable is the growth of Market Pulp capacity in Brazil (Figure 1).

Advantaged by a climate that allows accelerated forest growth rates, engineered tree plantations and strong global demand for fibre, Brazil has become the world's largest supplier of Market Pulp. For the period between 2007 and 2015 Brazilian Market Pulp capacity experienced a cumulative annual growth rate (CAGR) of 9.8%, more than doubling capacity over the period (Figure 1). Towel and Tissue (T&T) growth

With Brazil's economy struggling, one would expect some difficulty for the pulp and paper industry growth as well. Not so in Brazil. Pulp and paper businesses have been on a sharp positive trend line throughout the period leading into and beyond the global financial crisis.

Brazil's Market Pulp Capacity Trend



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Source: FisherSolve™



Figure 1: Brazil's Market Pulp capacity trend.

Brazil's T&T Capacity Trend



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Figure 2: Brazil's T&T capacity trend.

In 2016, Brazil was the 5th largest producer of T&T worldwide moving up from 6th in the past 10 years. The fluctuating economic fortunes of Brazil seems to suggest that once GDP growth brings with it increased T&T demand, the habits that consumers form are not rescinded during an economic downturn.

was also on an accelerated growth trajectory over the same period. Being comprised of relatively low density products (compared to Market Pulp), T&T products are not normally exported great distances like pulp or more dense paper products. But despite exportability disadvantage, T&T grew at a CAGR of 5% over the same period (Figure 2). In 2016, Brazil was the 5th largest producer of T&T worldwide moving up from 6th in the past 10 years. The fluctuating economic fortunes of Brazil seems to suggest that once GDP growth brings with it increased T&T demand, the habits that consumers form are not rescinded during an economic downturn.

Brazil's natural market is primarily local with export opportunities and competitive threats from surrounding Latin American countries. Within Latin America, Brazil holds a 34% share of the T&T market - a 6% share lead over Mexico, the next largest producing country. Geographically and in terms of distribution cost, Brazil is at an advantage vis-a-vis much of the Latin American market. Brazil's capacity position within the South American continent is commanding, out producing the closest competitive countries by a factor of nearly 5 to 1 (Figure 3). Given its proximity to excellent and abundant fibre and distribution geography, Brazil, the most populous country in Latin America, is poised to be a market leader for some time to come.

Focusing now on the companies, mills and machines that make up the T&T industry in Brazil, and the competitive environment in Latin America, it is obvious from the start that the industry is not very consolidated. There are forty producer companies, the largest of which represents a modest 14% share of total capacity (Figure 4). Thirty five of the producers hold less than 5% share of capacity. Interestingly, the individual mills are heavily dependent on integrated recycled or

T&T Market Share in Latin America



Figure 3: T&T market share in Latin America.

T&T Producers' Capacity Share in Brazil

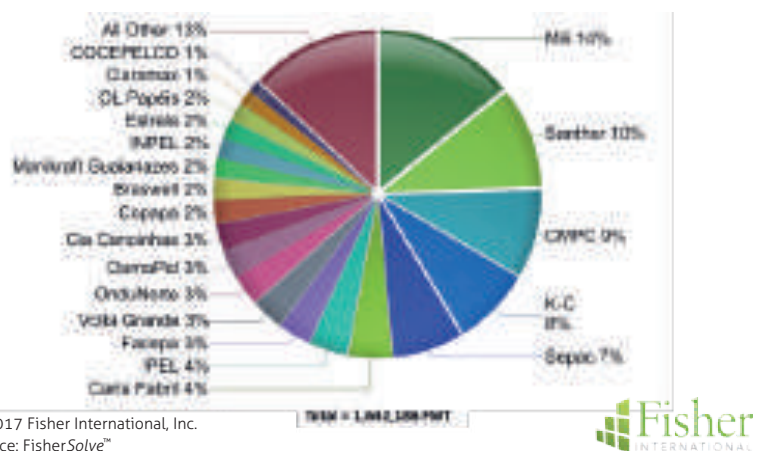


Figure 4: T&T producers' capacity share in Brazil.

T&T Average Furnish Mix by Latin American Country

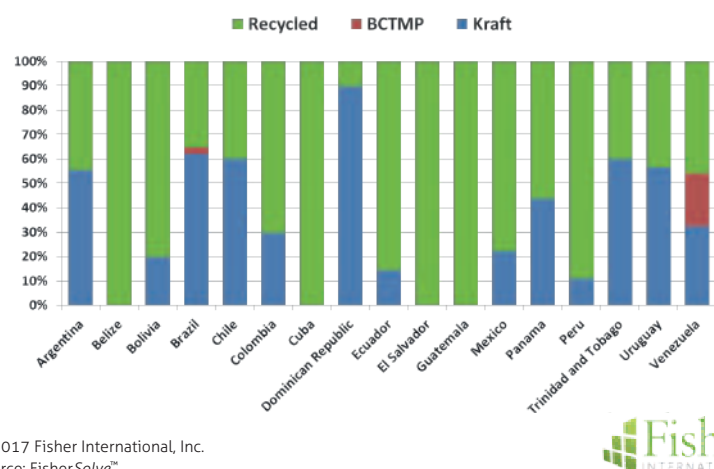


Figure 5: T&T average furnish mix by Latin American country.

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 a central figure resembling 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.

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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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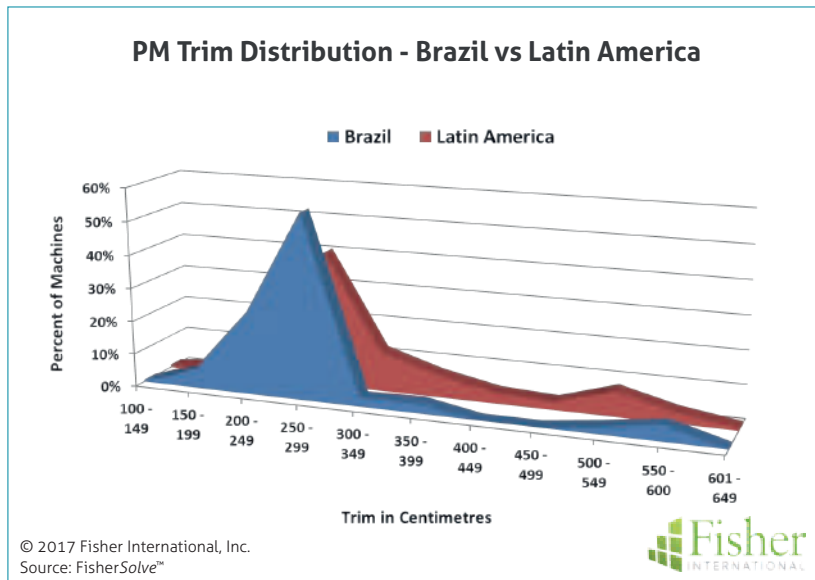


Figure 6: PM trim distribution – Brazil vs Latin America.

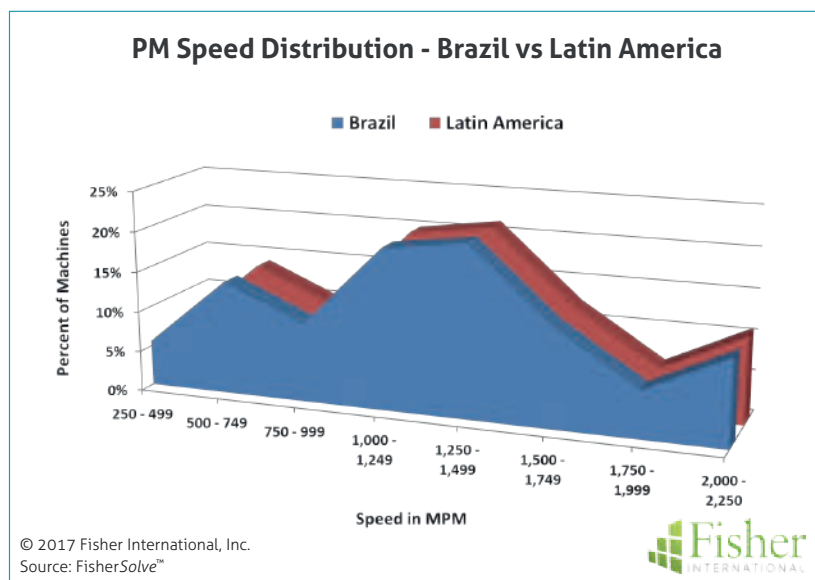


Figure 7: PM speed distribution – Brazil vs Latin America.

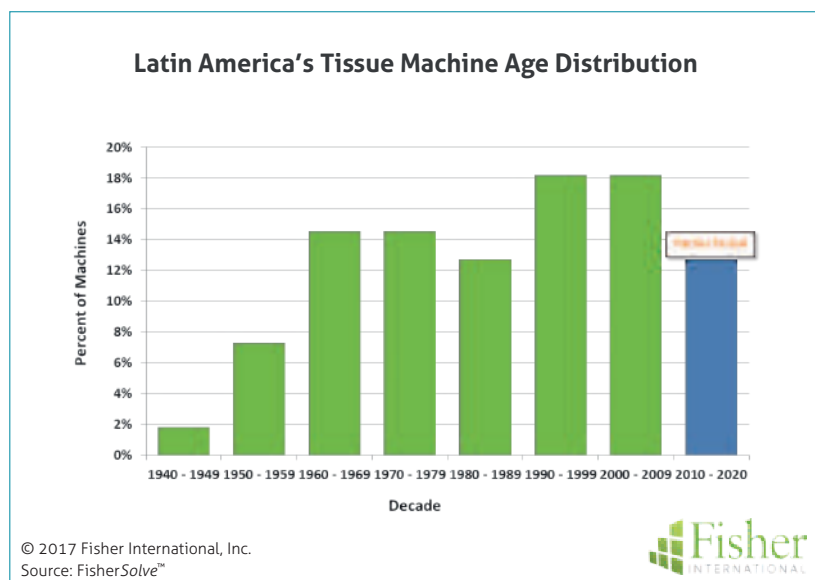


Figure 8: Latin America's tissue machine age distribution.

purchased virgin pulp. Only two mills are virgin integrated and only one of those is fully integrated (See Map). It is curious that more of the pulp mills are not at least partially integrated through paper. Comparatively, Brazil is slightly higher in the use of virgin pulps than the other countries with the Dominican Republic being the exception (Figure 5).

Paper machines in Brazilian and non-Brazilian mills are predominately narrow with 80% being in the two- to three-metre trim range (Figure 6) and of modest speeds with 70% being less than 1,500mpm (Figure 7). About 1/3 of the Latin American machines were installed after the year 2000 which is not surprising given the growth discussed earlier. Another 1/3 were installed between 1980 and 2000, leaving only 1/3 that could be characterised as aging machines (Figure 8). All but one of the Brazilian machines are conventional tissue paper machines. The exception is one "Advanced Technology" machine, which is a designation given to machine processes making structured non-compacted webs (TAD, UCTAD and ATMOS for example). In Brazil's case the Advanced Technology machine is a Thru Air Drying (TAD).

Brazil's cost position is high among the Latin American countries. More than half of the capacity in Latin America is lower cash cost than Brazil (Figure 9). The high cost position is primarily driven by fibre (combination of raw materials and pulp) and labour. On a quartile basis, Brazil is 4th quartile for these three cost components (Figure 10). Carbon emission penalties and capital mitigation costs are potentially significant factors in the future. In this area, Brazil is in a much better position than the other Latin American countries. Brazil's estimated emission levels are 1st quartile for the region (Figure 11) and significantly lower than all competing capacity.

Paper machines in Brazilian and non-Brazilian mills are predominately narrow with 80% being in the two- to three-metre trim range (Figure 6) and of modest speeds with 70% being less than 1,500mpm (Figure 7). About 1/3 of the Latin American machines were installed after the year 2000 which is not surprising given the growth discussed earlier.

It will be interesting to observe this market when the growth rate slows. Will the right-size strategy shift to economy-of-scale with larger machines? Will pulp producers integrate through paper, driving costs down?

In summary, Brazil's T&T business is enjoying strong growth even with the tough Brazilian economy. Many of the assets are new but small in scale. The T&T market is highly segmented with many small players and lacking a clear market leader. Mills and machines appear to be following a right-size strategy decoupled from pulp production which is good for local markets and product flexibility. It will be interesting to observe this market when the growth rate slows. Will the right-size strategy shift to economy-of-scale with larger machines? Will pulp producers integrate through paper, driving costs down? Time will tell.

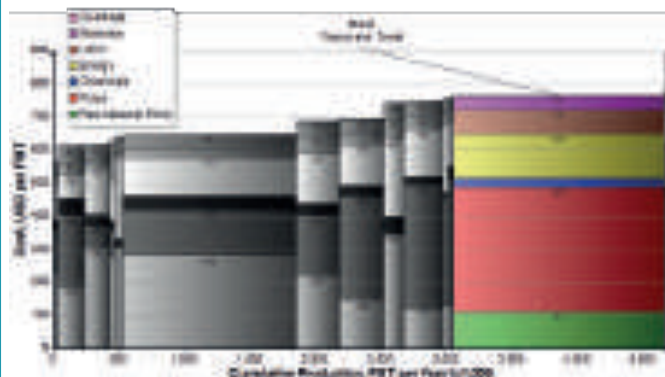
The source for market data and analysis in this article is FisherSolve™.

About Fisher International, Inc.

Fisher International supports the pulp and paper industry with business intelligence and strategy consulting. Fisher International's rich databases, powerful analytics, and expert consultants are indispensable resources to the industry's producers, suppliers, investors, and buyers worldwide.

FisherSolve™ is the pulp and paper industry's premier business intelligence resource. Complete and accurate, FisherSolve is unique in describing the assets and operations of every mill in the world (making 50 TPD or more), modeling the mass-energy balance of each, analysing their production costs, predicting their economic viability, and providing a wealth of information necessary for strategic planning and implementation. FisherSolve is a product of Fisher International, Inc. For more information visit: www.fisheri.com or email info@fisheri.com USA: +1-203-854-5390

Latin America's T&T Cost Curve by Country

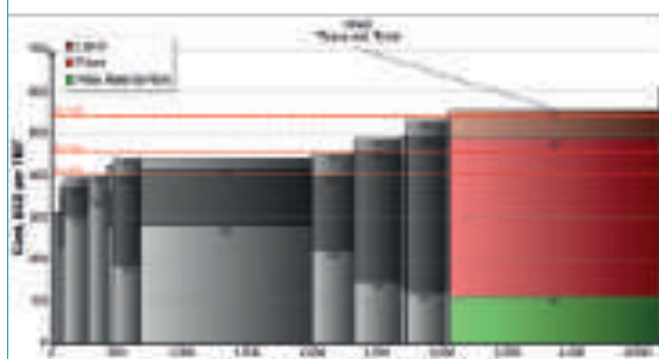


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Figure 9: Latin America's T&T cost curve by country.

**Latin America's T&T Cost Curve
Raw Materials Fibre, Pulp, and Labour Costs**

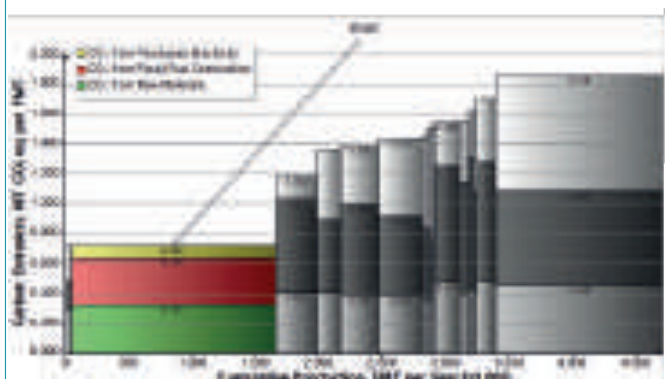


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Figure 10: Latin America's T&T cost curve (raw materials fibre, pulps and labour costs).

Latin America's T&T Carbon Emission Curve



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Source: FisherSolve™



Figure 11: Latin America's carbon emission curve.

Brazil's T&T Mill Locations



Map: Brazil's T&T mill locations.

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Brazil consumer tissue: lingering effects of economic downturn

Brazil's economy has experienced one of its worst recessions, with real GDP contracting once again by 3.4% in 2016. With economic downturn, the value of private final consumption fell by 3.5% in 2015 and only a marginal increase of 0.5% is expected in 2017.

Rise in unemployment, the tightening of credit conditions and decline of household incomes, combined with high inflation and a weak real, undermined consumers' purchasing power.

Unemployment in the country stood at 7.4% in 2016 and is projected to rise to 7.5% in 2017. Since the onset of the recession, businesses in Brazil cut 2.7 million formal jobs. Currently, over 12 million people in the country are unemployed.

Furthermore, youth unemployment stands at about 25%.

The country is in a slow recovery mode, with projected GDP of only 0.7% for 2017.

The feeble recovery should continue with growth of real GDP gradually rising to about 2.5% per year by 2020. Over 2016-2030, total disposable income in Brazil will increase by a cumulative value of 33.8% in real terms, growing at an average annual rate of 2.1%.

Consumers continue to focus on affordability and price

With estimated 560,000 tonnes in unmet potential for retail tissue and estimated US\$1.8bn in potential additional revenues, Brazil remains one of the focus markets for the tissue industry.



Svetlana Uduslivaia



*Euromonitor International's
head of tissue & hygiene industry*

However, hard hit by economic downturn and the retreat of the middle class, retail sales of tissue in Brazil had slowed down in 2015 and 2016, with 2% and 1% declines in volume, respectively. Value of sales was affected even more.

Brazil, retail volume by category, % y-on-y growth, 2014-2021

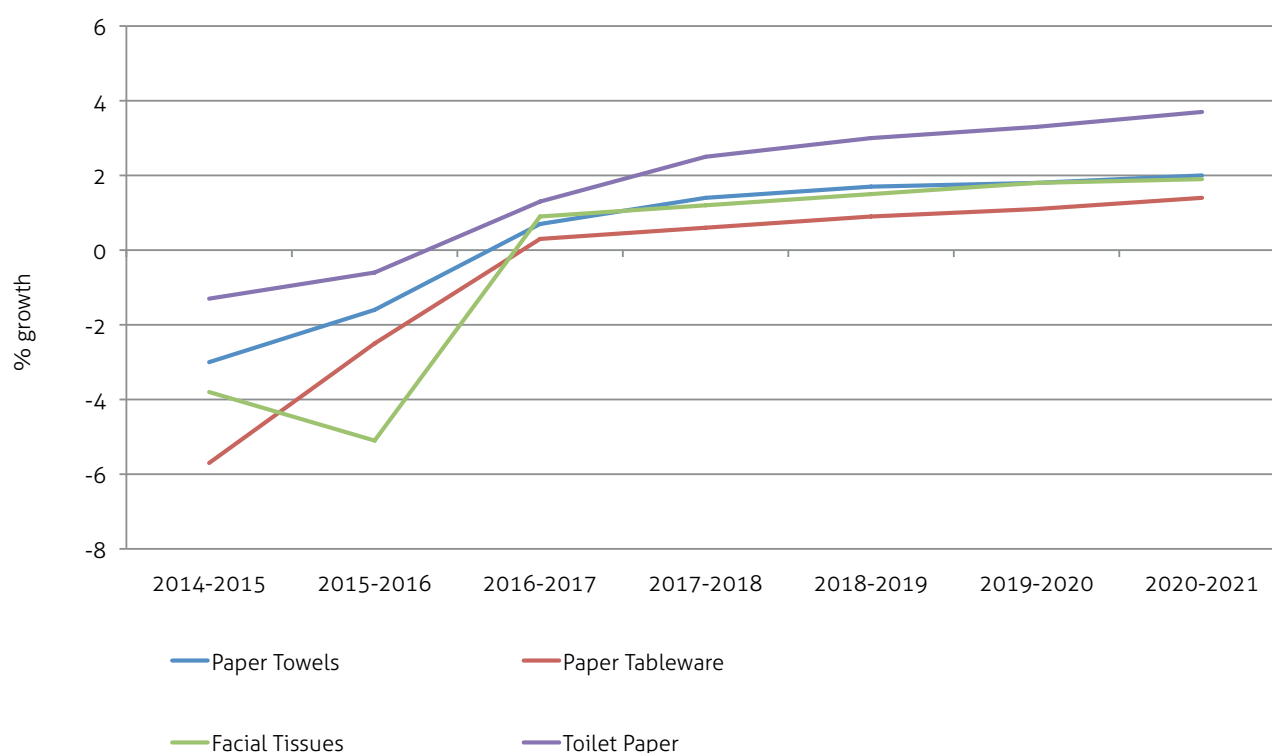


Table 1: Brazil, retail volume by category, % y-on-y growth, 2014-2021

Brazil retail tissue sales, % value share by company, 2011/2016

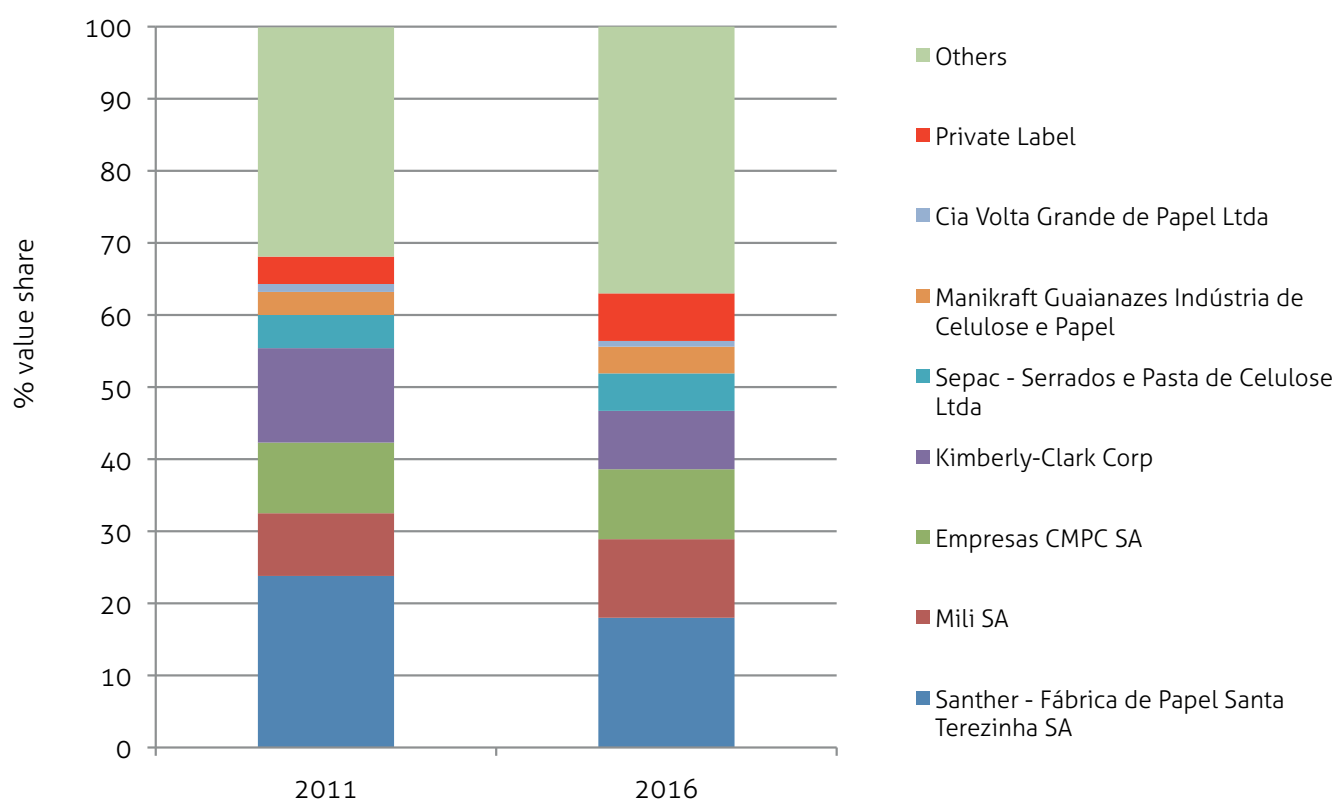


Table 2: Brazil retail tissue sales, % value share by company, 2011/2016

While prior to the recession, Brazil consumers have been showing an increasing preference for better quality value-added products, the economic crisis led many to adjust their shopping over 2015 when sales recorded a more significant drop in volume.

In the years prior to the recession, consumers in the country had been trading up in quality, including a shift to 2-ply toilet paper and other value-added features. Financial concerns of 2015 and 2016, however, led to changes in consumer shopping behavior and resulted in a weaker performance by value-added products marketed by brands like, for instance, Neve (Kimberly-Clark).

Facial tissue category has suffered the most in the past two years, with declines in 2015 and again in 2016, by 4% and 5% in volume terms, respectively. The category is yet to win over Brazilian households, and budget constraints did not help the matter.

Slow recovery ahead

2017 is set to be another rather difficult year for the industry in Brazil. Although inflation appears to be under control, the overall economic scenario is far from full recovery, and unemployment and high levels of consumer debt continue to affect negatively retail demand in Brazil.

Political struggles add another dimension to the uncertainty and concerns over the future economic policies.

In the climate of slow recovery, consumers are expected to continue their focus on price and value, with tissue products and brands retailing at a more affordable level likely to fare better.

The demand is expected to start picking up pace in 2018 across categories, with further improvements seen annually through 2021.

All in all, retail tissue in Brazil is projected to see 3% increase CAGR in volume terms over the period of 2016-2021, which represents an improvement over the industry performance in 2015 and 2016. Revenues are expected to see a slow recovery too, although profit margins will remain tight with persistent bargain shopping and the growing weight of private label tissue.

While still small in terms of share of tissue sales, compared to more developed markets, private label has seen significant growth in Brazil over the past few years, offering competitive prices and improved quality of tissue products.

Increased consumer awareness and acceptance of private label products, along with the projected further expansion of modern retail chains in the country, provide a good platform for private label growth in the coming years.

By Tissue World senior editor Helen Morris

'We diversified, it was the only way to survive. And it worked.'

If ever a company was poised for an economic uplift it's IPEL at its impressive new site in Indaial city. Managing director Juliano Silva talks growth, investment, flexibility, justice... and football and beer. Report by TWM senior editor Helen Morris.

Juliano Silva's enthusiasm for his job is very infectious. The warm and charismatic managing director of family-owned Indaial Papel (IPEL) joined the tissue producer's team just over a year and a half ago, having previously worked for ABB in several regions of Brazil and Spain. He's now in the middle of project managing the company's ambitious growth plan – an impressive and adventurous task that his enthusiasm doesn't once waver over during our six-hour meeting.

We meet in Blumenau, a lush and tropical city in the state of Santa Catarina, southern Brazil. Currently, the city is most famous for producing another product – beer – after it was colonisation by German settlers in the 1850s. The city now produces a rapidly expanding range of beer per year and according to Silva, the product makes up a substantial – and popular – part of the region's history. There is still a strong Germany-Brazilian identity, from the food on sale to the colourful streets full of Hansel and Gretel-style houses. This being a "mini Germany", Blumenau also hosts an annual Oktoberfest, where thousands of people descend dressed in lederhosen to help celebrate one of the world's largest beer festival outside of Germany.

O

Helen Morris

*Senior editor,
Tissue World magazine*

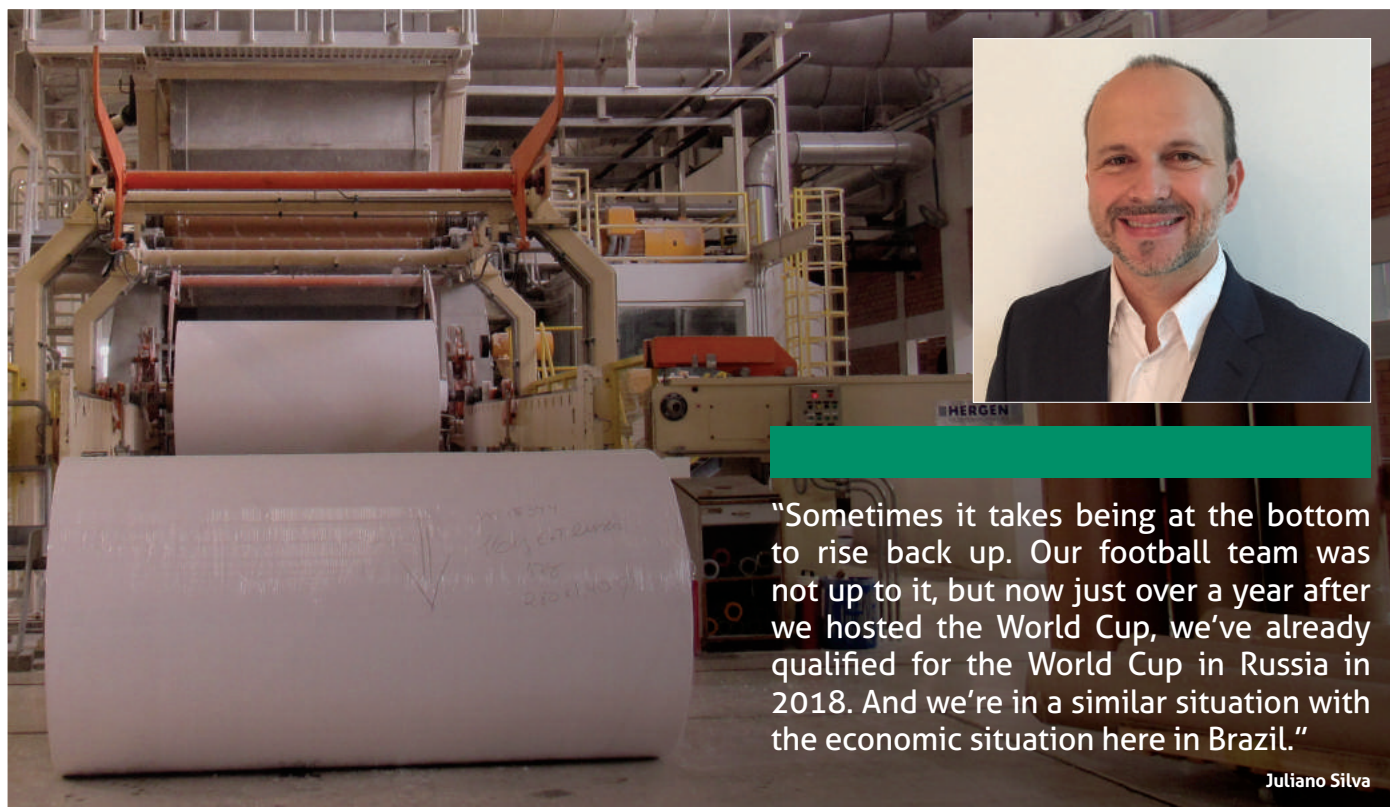
It's also impossible not to (wincingly) mention Germany's 7-1 win against Brazil in the 2014 Football World Cup. The defeat was a double blow for the Brazilians however, as the country was also the host nation. "It was necessary," Silva says thoughtfully.

There is still a strong Germany-Brazilian identity, from the food on sale to the colourful streets full of Hansel and Gretel-style houses. This being a "mini Germany", Blumenau also hosts an annual Oktoberfest.



Above: IPEL's tissue mill based just outside of Blumenau

By Tissue World senior editor Helen Morris



"Sometimes it takes being at the bottom to rise back up. Our football team was not up to it, but now just over a year after we hosted the World Cup, we've already qualified for the World Cup in Russia in 2018. And we're in a similar situation with the economic situation here in Brazil."

Juliano Silva

When TWM first travelled to Brazil for the country's report five years ago, the tissue managers I met and interviewed were in a buoyant mood, and why shouldn't they be; the country's 200.4 million population offered a lot of potential. Since then, a lot has changed.

"Sometimes it takes being at the bottom to rise back up. Our football team was not up to it, but now just over a year after we hosted the World Cup, we've already qualified for the World Cup in Russia in 2018. And we're in a similar situation with the economic situation here in Brazil: we're at the bottom, now we need to get back up," he says. "Bring it on!"

His competitive spirit will be needed. When TWM first travelled to Brazil for the country's report five years ago, the tissue managers I met and interviewed were in a buoyant mood, and why shouldn't they be; the country's 200.4 million population offered a lot of potential, incomes were becoming increasingly disposable as the "Class E" increasingly moved the "Class D" bracket, and so on and upwards... the country was lined up to host two of the world's largest sporting events... the tissue players believed it was a win-win situation.

Since then, a lot has changed. Brazil went into recession as early as 2014, and the people TWM meets on this trip say they don't expect it to end until at least the fourth quarter of 2018. They say the troubles are political, not economical; Brazil has been hit with severe and ongoing political scandals that have split political opinion almost more than Brexit has in the UK. Unemployment across Brazil was at an all-time high of 13.20%

in February 2017 and illiteracy is widespread. The country with such a large and fairly young workforce, a strong geographical location and an abundance of raw materials, has not (yet) ever been able to actualise its Goldman Sachs forecast that made it the only Latin American country in the much-hyped BRICs... an era that is now over.

The country with so much potential has had a very steep dip. Yet, even during times of recession and deep political scandal, Brazil has (largely successfully) hosted the world's two greatest global sporting events in two consecutive years without incident – no mean feat for anyone. Social planning programmes put into place are argued by many to be making a positive impact throughout the country. Silva himself is determined that a new generation of Brazilians is emerging, and will lead to an emergence from recession and back to the forecasted tissue growth rate. "I have faith that things will change for the better here, but it will take time," he says.



By Tissue World senior editor Helen Morris



Above: IPEL's two owners have built an impressive 65,000sqm site which is surrounded by lush forests and rivers.

Although the Santa Catarina state where IPEL sells a lot of its tissue products seems largely to have escaped the economic woes impacting the rest of the country, the fluctuations in the economic climate have still meant it has needed to diversify its product offering. As recently as 2014 it was producing 93% AfH products, but the recession changed that: "If we'd stayed just in that market, we would be dead now," he says. "We diversified, it was the only way to survive. And it worked. Now we have no debt, we're investing in fantastic technologies, we're working with key retailers across the supply chain, from Brazil's local supermarkets to the top giants with operations throughout the country ... we couldn't put all our eggs in one basket and it's made us more flexible and able to adjust and react quickly to any customer's needs."

IPEL was founded in 1982 and has a current capacity of 50,000tpy of tissue paper at its mill in Indaial city. The two owners have built an impressive 65,000sqm new site that Silva heads up. It's surrounded by lush forests, rivers, and monkey ropes have been attached around the plant to encourage the success of their mischievous neighbours. There's also a school on site for staff and the community to attend.

Walking around, it's also obvious that there's substantial space to grow. A new PM is already planned for and will go alongside the existing Hergen-supplied PM, while a new Fabio Perini converting line will join the existing one in the next few months. Walking to the space above the machines to get a bird's eye view and the top floor has an almost exact equivalent amount of space. It's currently empty – plenty of space for further investment.

The AfH market is stable or even suffering a reduction because of unemployment, Silva says. "Less people are consuming." IPEL, fourth in the Brazilian tissue market of AfH, counts on private label products to reduce its impact, with 60% of its production for that sector. "Private label is a strength for us, it means we support the distributors with our large range of portfolio in AfH, creating and recommending new solutions and adding value to them," he says.

Diversification of product is a key market strategy: for toilet paper, the company produces 12 pack rolls, 24 pack and 16 pack rolls, which he says are the most common in Brazil. It does 1ply, 2ply and this year will start to launch out 3ply products – extra luxury, luxury and recycled. The site also produces towels in folds, rolls and napkins for dispensers and bed sheets for hospitals. "Flexibility is key, especially for the AfH market," he adds. "The economy has made tissue consumption decrease. But hygiene has started to become more integrated into people's mind-sets. GDP and population ... they're creating a lot of pressures, so we're starting to see changes. With our new PM planned for the coming years, we'll be ready



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RETURN
ON
INVESTMENT

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TOUCH
ON THE
ENVIRONMENT

By Tissue World senior editor Helen Morris

for when the change happens. The recession and economic pressures will change, we've forecast that, and we'll be ready to meet the increase in tissue demand. We want to grow and continue to grow."

Elsewhere in Brazil, Silva says the start-up of tissue production by existing and new big players will be interesting in terms of how it impacts the market: "It will add to the price war we're already seeing here." For GDP, it dropped 3.6% last year, so the tissue industry also decreased. "The service market is reducing around Brazil and that makes it very competitive. But we are increasing our production, as a defensive strategy we started to diversify from AfH into consumer and we managed to grow 45% last year. This year we forecast around 20% growth. With the new Perini converting lines, we'll produce kitchen towels and we're still dreaming about diversifying further and producing napkins. We're still seeing the largest demand for toilet paper, but we want a combination portfolio. It's a way to balance production and have better flexibility of products. We are flexible, we take an order today and we dispatch today."

The site also has a significant focus on efficiency and has taken several actions around the plant to increase production, reduce costs and take its performance to new levels. He says the projects on site are supported by the main suppliers for pulp, chemicals, energy etc, but that the speciality of maintaining them is due to a skilled technical team that is determined to improve IPEL's overall condition. "We take good care of all of these issues," he adds. "We are being more efficient. Our strategy is defence – to have more products so if volume goes down in one area, we can focus on other products keeping costs controlled. It's a good balance."

When the economy comes back, "we will double in size," he adds. "We are healthy and well established, we don't have debts. We saw 45% growth last year and forecast 20% this year. We just need the economy to come back. If it doesn't come back, we will take it one step at a time. In the middle of everything we have been making the foundations for the new machine. We've been investing for the future. Once the new machinery is in, we will equip the second floor. Converting will go on the second floor... by December we will start filling the second floor. We may have a small and smart head, but we will also have legs and arms that stretch far... It's tough, but it brings competitiveness," he says. "So let's go for it."



Space to expand: once the first round of new machinery is in, the company will equip the second floor, mainly with converting equipment

By Tissue World senior editor Helen Morris

How to achieve growth in a national crisis

These are turbulent times in Brazil – but tissue is toughing it out. Helen Morris, Tissue World magazine senior editor, visits Carta Fabril's Rio de Janeiro headquarters as the company begins the start-up phase of what will be a world record breaking tissue machine.

The drive to Carta Fabril's headquarters takes TWM across Rio de Janeiro's Presidente Costa e Silva bridge, with views stretching for miles over the stunning cities of Rio and Niterói, their beautiful seas, islands and the surrounding vast ports.

Much has been made of the troubles that Brazil, the Latin American BRIC giant, has faced in the last few years; political scandals and allegations of corruption have blighted the country, and some would say brought it to its knees.

However, driving through Rio on a sunny March day and it would seem to be business as usual. The streets are full of Cariocas and tourists going about their daily routine, shopping malls are full, stall sells stand on most corners with their carts packed full of fresh fruit, and the views across the bridge towards Carta Fabril's head office show that trade in the ports is as busy as ever.

Vice president Victor Coutinho greets TWM. Speaking in English, he explains the history of the family-owned company, which was established 26 years ago. Carta Fabril now has two tissue

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Helen Morris

Senior editor,
Tissue World magazine

mills in Brazil, one in the Rio de Janeiro state and the other in Anápolis, GO, in the centre of the country, and the home of the company's new tissue machine. The Brazilian tissue market is a unique one, with lots of local and family-owned small to

Much has been made of the troubles that Brazil, the Latin American BRIC giant, has faced in the last few years; political scandals and allegations of corruption have blighted the country, and some would say brought it to its knees.



"Our expectations are that, in 2018 we will start to recover the former growth we had before the crisis." Vice president Victor Coutinho

By Tissue World senior editor Helen Morris

medium-sized tissue mills, but with Kimberley-Clark and CMPC the main players that also have a substantial tissue presence outside of Brazil.

It goes without saying the Brazilian tissue market is fiercely competitive. Coutinho repeatedly talks about growth throughout our meeting, and staying competitive through investment is a key market strategy.

The company's recent investment of an Andritz-supplied PrimeLineST W22 tissue machine with Steel Yankee and steam-heated hood is, according to the supplier, a world record: with a diameter of 22ft the machine is the largest Steel Yankee for tissue worldwide. Start-up at the company's Anápolis mill is scheduled for January 2019.

Coutinho says the issues in Brazil aren't necessarily economical, but political: "What we're seeing now is a consequence of our political crisis. We don't have very good expectations for the situation to change until at least 2018. We are braced for this year to be difficult, but after that we are hoping – and expecting – the situation to improve a little. It's chaotic here in Brazil at the moment, we are all operating in a crisis."

Here he talks to TWM about investment, resilience and changing trends.

TWM/1 : Why have you made this investment?

"This machine installation is an important part of Carta Fabril's plan to remain competitive in a market where a lot of international companies have settled in recent years. The project embeds a lot of innovative features and will bring higher productivity to our operations, being the first double width machine in our group. It will also bring a lot of important developments in terms of efficiency and water savings, as well as substantial technological and environmental advancements."

TWM/2 : What growth are you seeing in the Brazilian tissue market?

"We don't believe there will be growth that exceeds 3-3.5% on average across Brazil. Up until 2014, the average growth has always been around 1% point over the GDP growth, so around 4.5% per year. After 2014, we experienced two years of recession, with -2% in 2015 and no growth at all in tissue in 2016."

The company's recent investment of an Andritz-supplied PrimeLineST W22 Steel Yankee and steam-heated hood is, according to the supplier, a world record: with a diameter of 22ft the machine is the largest Steel Yankee for tissue worldwide. Start-up at the company's Anápolis mill is scheduled for January 2019.

"Our expectations are that in 2017 we will see some growth, maybe between 1-2%, and that in 2018 we will start to recover the former growth we had before the crisis. For us, local demand is not expected to grow as it did a few years ago, but the number should reach reasonable values to guarantee some development for the tissue market."

TWM/3 : Why was this growth happening?

"What we're seeing now is a consequence of our political crisis. We don't have very good expectations for the situation to change until at least 2018. We are braced for this year to be difficult, but after that we are hoping – and expecting – the situation to improve a little."

Victor Coutinho

"During the good years of growth, the main reason was a reasonable growth in the Brazilian people's income, which we saw mainly from middle class citizens. There was a migration from medium quality products to high quality products, which have a little more basis weight and therefore are consumed more."

"Additionally, the government created a programme to enable better income distribution, taking resources to regions far away from the big cities. This has caused a boom in growth in regions where tissue consumption was really low. These actions also provided some regions and states with more income and so they could invest in infrastructure, which caused a good cycle of growth. In turn, this created a better environment for growth in tissue consumption because it saw a significant change in hygiene habits and a growing need for disposable products."

"Recently, after the political and economic crisis, the growth in these regions is still higher than the rest of the country, although it is not at the same level as it was before 2013."

TWM/4 : What trends are you seeing in terms of quality?

"Brazilian consumers are searching for better quality products. This market has experienced an important migration from low-medium quality products to high quality products. In recent years, the 1-ply market has been stable in terms of tonnes per year, while growth in tissue was only in 2-ply for toilet paper for example."

"There was also a significant growth in kitchen towel market and also in napkins and facial, although at a lower rate. Even with declining growth, we observe that quality is becoming an important advantage to reach the needs of our market."

TWM/5 : How are the economic events in Brazil impacting the country's tissue industry, and what are the main opportunities you face?

"Although the economy here is not going as well as we wanted, our market still offers opportunities for those who differentiate themselves from others. There are a lot of opportunities in the Brazilian market, mainly because consumption is still very low when compared to other countries with similar GDP per capita. As the costs for logistics have been growing in recent years, one of the possible growth opportunities is converting products closer to the growing markets, which are far away from the traditional actual production centres.

"Other markets that we have not yet explored with our full attention include the facial products market, and this sector could also be a good opportunity since it is currently a very small market in Brazil."

TWM/6 : And what are the main challenges for you in Brazil?

"Brazil's market and economy offer a complicated set of challenges that have to be faced every day by all of its industry, not just the tissue sector.

"We face high levels of unemployment and bad macroeconomic perspectives in a context where companies have grown without even considering the possibility of an economic crisis. These are elements of a formulae that shouldn't lead companies to invest any further, mainly because we will have significant overcapacity in a few months.

"Energy costs are also increasing and it's an important issue that all companies have to pay detailed attention to. Tissue companies in Brazil are not expected to reach more than 80% of the total installed capacity in the next few years. Productivity, when compared to developed countries, is also a very important subject when we think of matching the competitiveness needed to plan future exportations. One other important challenge in our country is that we have more than 50 tissue industries and countless number of converting companies that create a very competitive environment."

TWM/7 : Do you export and are you looking to export more products?

"At this moment, our company is still not exporting its products, mainly because we have been selling all of our production in the internal market. However, with the expected growth in tissue for the country, it's expected that in a few months we will have even stronger overcapacity and so some of our products will have to be exported. We have full capacity and we want to export once our new machine is up and running. We have always been planning to export, starting with the south and central America and in future perhaps to the West African market. This new project makes us very competitive.

"We are seeing new players coming into the market, for example Suzano. Our competitors are also investing. We keep growing, we will close down machines in order to modernise

"Energy costs are also increasing and it's an important issue that all companies have to pay detailed attention to. Tissue companies in Brazil are not expected to reach more than 80% of the total installed capacity in the next few years."

Victor Coutinho

and a big increase in capacity with the new Steel Yankee, seeing an increase of 80,000tpy to 120,000tpy. Overcapacity is a huge problem. We want to offer something different. Brazil will still grow, there will still be some space. We want to be very competitive. We will export, mainly in Latin America. This year and the next won't be so good, but by the end of 2018, we hope to start seeing improvements. We have good expectations. In the short term however, the situation isn't great. We don't have a stable political scenario. But tissue is very resilient. It is an index of how a country is operating. We are growing despite of the crisis and we will keep growing. We only do around 5% of production for private label and we're not looking to increase that. We were producing mainly 1ply, but now we're moving more into 2ply as well."

TWM/8 : Are environmentally-friendly tissue products an opportunity for you?

"We are seeing considerable growth in demand for green tissue products here in Brazil, as well as in other market segments. This is a considerable opportunity for the Brazilian tissue market. However, only a small portion of consumers have a clear idea of these types of products, so it will be a case of helping to educate the consumer."

TWM/9 : How are tissue buying habits changing in Brazil?

"Because of the recent economic crisis, the Brazilian consumer is searching for opportunities of good costs and benefit purchases. In certain aspects, this is seeing them moving away from traditional brands when buying tissue products.

"Sales in Brazil happen in a more spread and distributed way, and consumers don't seem to have a preference for local or big centralised shops or supermarkets. Online purchases of tissue are not yet especially popular."

TWM/10 : What is your aim for the next five years?

"Our plan is to continue growing as we have grown in recent years, although the expectations for growth in the Brazilian tissue market are not so encouraging.

"The main goal is to maintain our competitiveness and enhance productivity."



Family tissue: for babies' noses... and Construction Club

Creativity is at the heart of Brazilian Melissa Hoemke's family. After living in London for 12 years she wants to do right by the children and the environment, and make sure she doesn't extrapolate her budget.

Thinking about it, I realise I use a lot of tissue paper on a daily basis. Toilet paper, kitchen towels (thins and heavy duty), wet wipes (it's been six years changing nappies! OMG!), tissue papers (boxes around the house and pocket size... ready to blow those little cute noses during winter), papers for arts and crafts, puzzles (I encourage them daily to be creative)... and lots of activity books (to enhance home learning).

"Generally I prefer them playing with cardboard and wood rather than plastic so I re-use big cardboard boxes to build castles, little houses, boats, etc, and mainly all the packaging and toilet roll cardboard part goes to the school for the kids to use at Construction Club. I use these products for necessity,

convenience and hygiene... a little bit of everything! But I am very environment conscious so I try to consume as little as possible or to re-use whatever I can or recycle if possible.

"Considering that we are a family of five and that currently I am not working so I can dedicate my time to the kids (husband and myself are in that list too, hehe), I look for good value for money. I love 'SALES' and always check and compare brands. I don't mind if it is brand or private label. If there is a new product with an excellent price I give it a go to check the quality, if it is good, hurray! If it's not I prefer to pay a bit more and have better quality. I buy at a local supermarket (Sainsbury's) and very occasionally online.

"Environmentally-friendly products are very important to me. But if the cost is

very high, unfortunately I won't buy it because it will definitely extrapolate my budget!

"In Brazil, there are not as many options brand-wise as in England and the quality is very often lower than it is here. When we travel there, I tend to carry wipes for examples because they are cheaper and better here.

"The Brazilians don't use as much paper as we do here, just maybe the upper-class Brazilians. Generally these products are expensive in Brazil.

"My tissue buying habits haven't really changes since having children. I have always looked out for good value for money. But the quantity has increased without a question! I have always tried my best to minimise the environmental footprint on the earth."



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The future for fibres

The higher web strength that premium reinforced pulps bring the tissue maker improves tissue machine and converting efficiency, says Bill Adams, senior director at Canfor Pulp, the world's fifth largest producer of market NBSK. Here, he talks bulk, absorbency and softness. A TWM report.

Canfor Pulp produces 1.2 million tonnes of northern softwood market kraft pulp per year from its three mills in northern British Columbia. Some 90% is then bleached to become northern bleached softwood kraft (NBSK) pulp.

The forests in Canada are owned by the government which is responsible for determining which areas are designated for conservation and which forests are available for commercial harvesting. Only natural forests are legal and all forests must be immediately replanted after harvesting. Plantations are illegal and forest licence operators must replant natural species similar to the species that were harvested in order to preserve the natural forest biodiversity.

In Canada, the goal of re-forestation is to generate a natural forest after harvest. Canfor is one of the few primary lumber manufacturers to offer products certified to all of the independent certification programs in North America – 99.5% of our woodlands operations and managed tenures are certified to internationally recognised standards. All of our Canadian operations are CoC-certified.

In 2016, 83% of our fibre supply was from certified sources, and all of it comes from British Columbia where it meets stringent provincial forest laws. The goal is to source 90% of our fibre from certified sources by 2020. Canada continues to be the global leader in forest certification with over 168 million hectares of certified forests. PEFC continues to be the fastest growing

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Bill Adams



Senior director, sustainability, customer service and innovation, Canfor Pulp

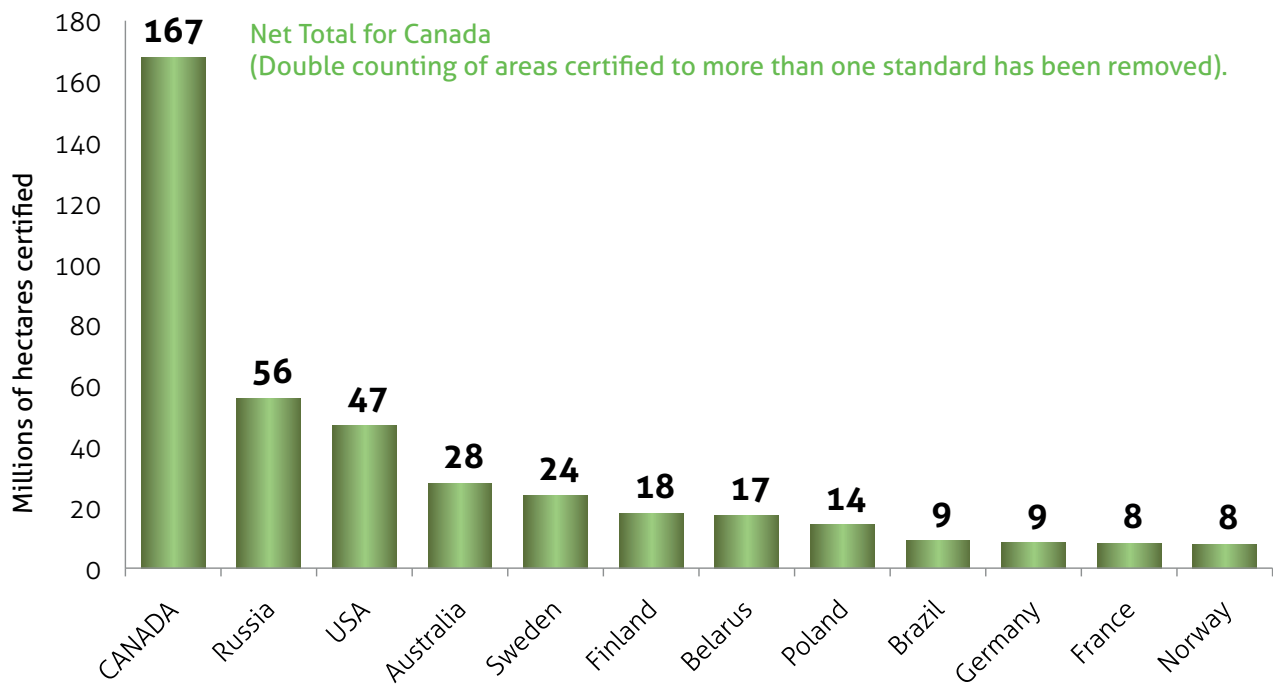
certification programme in Canada with over 10 million hectares of new forestland certified since 2014. FSC-certified forests continue to decline with the loss of two million hectares since 2014.



Above: The Northwood mill in Prince George produces 600,000ADMT/year of NBSK.

Canadian Certification in the Global Context

2016 Year-end





Above: The Pulp Eye monitoring system is used on all fibre lines and at the R&D centre.

In 2016, we planted 72 million trees on their forest licence tenures. We own the J.D. Little Forest Centre near Prince George; the nursery grows 9.0 to 9.5 million hybrid white spruce trees every year using Class A improved seed produced in a seed orchard. The remainder of the seedlings are purchased from three independent nurseries.

Improved seed is created through the conventional controlled breeding of known parent trees that exhibit superior attributes. There is no genetic modification (which is illegal in Canada); it involves the cross-pollination of trees that exhibit desired characteristics such as fast growth or resistance to pests and disease. In British Columbia more than 60% of the seedlings planted by Canfor are grown from improved seed.

The 120 to 140 frost-free days per year in the northern regions of Canada provide a short intensive growing period that result in the development of a very thin cell wall combined with a long fibre length. These fibres are ideally suited for premium tissue as the long, thin-walled and slender fibres provide the increased softness desired from premium tissue producers. The highly integrated forest sector in British Columbia allows Canfor Pulp mills to use high quality wood chips from the regional sawmills, which

In 2016, 83% of Canfor Pulp's fibre supply was from certified sources, and all of it comes from British Columbia where it meets stringent provincial forest laws. Canada continues to be the global leader in forest certification with over 168 million hectares of certified forests.

further enhances the delivery of the fibres for pulp manufacturing.

The very consistent biogeoclimatic conditions (temperature, elevation, precipitation and soil conditions) in this fibre region (annual average temperature of four to five degrees Celsius) produce fibres with very uniform fibre properties. This consistency in species and growing conditions enables the tissue producer to rely on uniform and ideal fibre properties to optimise tissue manufacturing operations.

We find more and more that the growth in global demand for tissue products is driven by increasing living standards and awareness in health and hygiene. More specifically, the demand for premium tissues have increased the use of the thin-walled and low-coarseness fibres that can provide web strength while preserving softness. These fibres allow tissue makers to use less softwood in the sheet

compared with coarser NSBK pulps grown in warmer climates or faster growing plantation scenarios where quality is often a lower priority than growth rate.

Tissue producers looking to improve softness and reduce costs have long recognised the need to increase hardwood fibre content. The desire for increased softness has increased the value of northern Canadian pulps as the tensile strength provided by the limited softwood in the tissue sheet becomes more critical. The higher web strength that premium reinforced pulps brings the tissue maker improves tissue machine efficiency, converting efficiency and overall product performance. The high-strength web is developed with minimal refining of Canfor's pulp which helps optimise bulk, absorbency and softness.

This article was written by Bill Adams, senior director, sustainability, customer service and innovation, Canfor Pulp.

Our Secret Recipe for Perfection:

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Extra and
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Essential



Investments mean more ECF pulp from Södra

Södra Cell has pioneered TCF pulp but with the evolution in the market and in ECF bleaching technology, the company has significantly boosted its growing position in ECF.

Södra's latest investments have included the new ECF bleaching line at Värö and customers are expected to receive their first ECF-pulps by the second half of 2017.

We remain the largest TCF producer in the world by some considerable margin. The total absence of any form of chlorine from the bleaching process is still demanded by significant tissue producers and this remains an important position.

However, the reality is the ECF is favoured in important markets and Södra has responded accordingly.

Södra Cell already offers ECF grades from its other mills, but until now Värö has only produced TCF pulps. The installation of state-of-the-art ECF bleaching equipment is changing all that.

usually be easier for an ECF customer to switch to another ECF grade.

By offering the choice of both ECF and TCF, we can now make it even easier for customers to make changes to their pulp mix and replace an existing ECF grade with a Södra ECF pulp, should they want to.

ECF: expansion in Asia

Additionally, Södra will be seeking to increase its market share in Asia as a result of the expanded production capacity at Värö. ECF pulps are often the preferred choice for the Asian tissue segment since fluorescence is a subject of debate in the region.

In addition, ECF grades tend not to yellow over time in hot, humid climates, a further consideration when

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Marcus Hellberg



Head of marketing and business development, Södra Cell.

and UV light, lower fibre charge, improved dimensional stability and less fluorescence. All this is achieved without affecting tensile strength.

Back on track

As well as trialing the new ECF grades, Värö is continuing its work of optimising the new equipment. We are currently producing pulp of the same standard that we had before the rebuild. But we know the potential we have here and so the fine tuning continues and will probably continue for years to come – we want to show our customers what the new mill can really do. And volume wise we are right on schedule.

This article was written for TWM by Marcus Hellberg, head of marketing and business development, Södra Cell.

Södra Cell already offers ECF grades from its other mills, but until now Värö has only produced TCF pulps. The installation of state-of-the-art ECF bleaching equipment is changing all that.

We were pioneers of TCF bleaching in the 1980s when TCF was seen to be a better choice environmentally. But today, according to our lifecycle evaluation there is no discernible environment benefit between TCF and ECF bleaching and the global market for TCF pulp has declined.

Although strong positions for TCF still remain in the German speaking region of Europe, some 95% of our European customers now use ECF pulps and this is basically us adapting to current market conditions.

For those seeking to change grades, it is easier to replace like with like – so it will

the pulp is being transported long distances or stored for a long time, especially in warmer climates. Some sectors, such as labels, also prefer the slightly higher dimensional stability and tear that ECF grades can impart.

ECF benefits for tissue makers include improved dewatering, less brightness reversion caused by heat

ECF benefits for tissue makers include improved dewatering, less brightness reversion caused by heat and UV light, lower fibre charge, improved dimensional stability and less fluorescence. All this is achieved without affecting tensile strength.

Multi-solutions for multi-shoppers

Product positioning, choosing a loud and clear way to communicate a product's attributes, inspiring and educating shoppers: Fernanda Accorsi, founder of F.A. Retail, talks to TWM about changing retail trends

We do not wear the same look every day, and actually, we wear totally different styles during the day according to the situation: we get dressed for work, we change when we go to the gym, or we get dressed up for an important cocktail or dinner. When we get back home, we get dressed to go to bed.

Although the tissue segment is not so glamorous (yet), shoppers are already purchasing according to what they want and their choices are based more and more on a variety of performance, quality and occasion – it is the perpetuation of multi-needs and the emerging of multi-shoppers.

Before, we had a simple need, which was easily solved with a simple solution. But times have changed. If before we needed a 'piece of paper' to keep our mouths clean during a meal, now it really depends what the occasion is, and it's diversity that drives our purchases: cocktail napkins, family-size for tomato sauce meals, napkins for special occasions or celebrations – birthdays, children's birthday, Thanksgiving, Christmas – takeaway product...

The reason why we see the tissue portfolio expanding is because we find specific niches in the market and each stock-keeping unit (SKU) is delivering a unique value for each particular target. It is an explosion of possibilities in a segment that was a commodity: colours, fragrances, lotions, decoration, textures, embossing, layers...

The reason why we see the tissue portfolio expanding is because we find specific niches in the market and each stock-keeping unit (SKU) is delivering a unique value for each particular target.

Driving global tissue demand

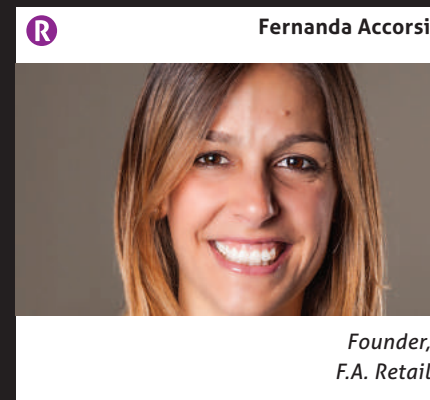
If we take a step back to understand how the market behaves, various megatrends support the long-term growth of global demands. However, the correlation between Population Growth and Economic Development is certainly one of the strongest. Our consumption is generally associated with "how much money we make" (Gross Development Product – GDP) and the total demand of a nation increases as the number of people consuming increases.

Before, we had a simple need, which was easily solved with a simple solution. But times have changed. If before we needed a 'piece of paper' to keep our mouths clean during a meal, now it really depends what the occasion is, and it's diversity that drives our purchases.

Two big markets are established according to the correlation above described: Mature Markets and Emerging Markets. Even though there are cultural and economic variations across each one of these big markets, the per capita consumption level can be significant when comparing one with the other (according to Pirkko Petäjä, Pöyry Management Consulting).

Mature and emerging tissue markets

The industry is shifting from the North to the South and from the West to the East. Mature markets – in the West and in the North – will continue to grow but at a slowing rate. Because this market is reaching maturity in terms of per capita



Fernanda Accorsi

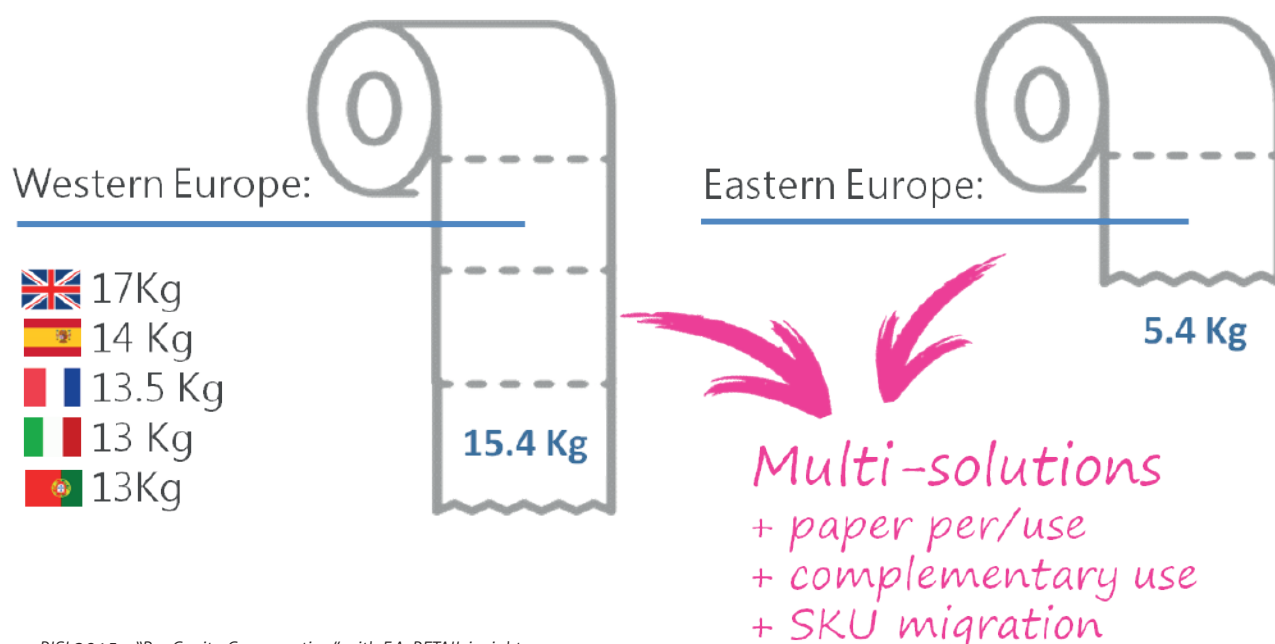
Founder,
F.A. Retail

consumption, the interrelationship between GDP and tissue paper demand is becoming flat and predictable. In North America and Western Europe for example, the expected demand growth will be mainly driven by the population growth, and of course, addressing better products with higher values (ultra soft, 4+ ply, high absorption embossing).

In the Emerging markets – specially represented by Latin America, Asia, Africa, East Europe – tissue consumption per capita is low and in the early stage of development. A large proportion of consumers are still below the income average and tissue products are having their penetration increased.

The match-point for both markets, mature and emerging, is the importance of identifying the different needs among the shoppers and having special offers for each one. There are no more cost-benefit vs premium products; there are multi-solutions addressing specific expectations and usages.

Mature | Emerging Markets



* Source: RISI 2015 – "Per Capita Consumption" with F.A. RETAIL insights

When comparing the consumption in Europe between mature and emerging markets, the average of consumption per capita in the Western Europe is about 15.5Kg, while in the East is three times less. And among the markets considered mature, we have strong differences between UK and Portugal, for example.

Some categories are still not well penetrated, and the ones that already are, the general demand does not exceed 2 or 3 ply products and paper weigh (g/m²) has very low standards.

No matter what market we have, multi-shoppers require specific products and brands find different arguments to offer these multi-solutions: by offering products with more paper per use, by showing how their products can complement each other, and by

promoting SKU migration (specially for emerging markets) – supporting the transition from very basic products to better quality ones.

How to address multi-solutions

Companies and brands struggle to identify real solutions, to develop and manage a consistent portfolio in which every SKU plays an important role to address a different need.

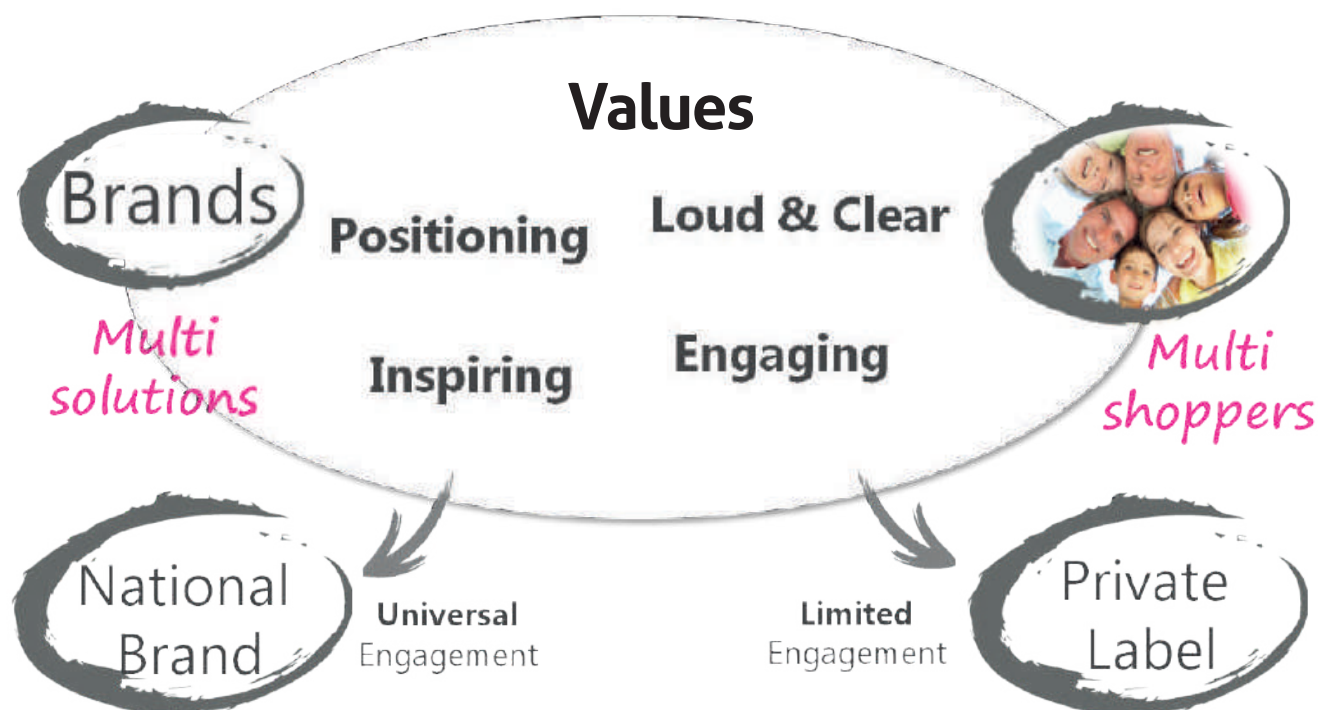
It is common to see companies working with a large number of items nowadays, focusing on different targets: big vs small packs; 1 ply vs many ply, tick embossing vs smooth, softness; resistance; absorption; white vs colours; virgin vs recycled.

On the other hand, I see many companies distracting their targets by offering "mega soft versions" while also offering the "ultra mega soft versions", which does not support the brand on achieving new targets or does not offer a clear consumption reason.

From one side, we have the multi-shoppers pursuing complementary products and purchasing with a multichannel behaviour (offline and online). On the other side, brands are absorbing their behaviours to offer a consistent content template for their portfolio, identifying the most relevant content calendar for each sub-category in order to address customised promotions and campaigns.

More important than having a large portfolio is how to identify what is really relevant, what adds value to a specific target and how to communicate the attributes of each product, helping the shopper during the purchase experience. The whole chain is about interpreting a need, translating it into a relevant content and finding a valuable way to communicate it.

The industry is shifting from the North to the South and from the West to the East. Mature markets – in the West and in the North – will continue to grow but at a slowing rate. Because this market is reaching maturity in terms of per capita consumption, the interrelationship between GDP and tissue paper demand is becoming flat and predictable.



* Source: F.A. RETAIL – Content & Solutions

For a better shopper experience

The category presents a low brand loyalty – which can be positive and negative, once shoppers migrate quite easily from one brand to another and from one version to a different one, just to try it. It is easy to convince them to change, especially if there is a price advantage.

Because the shopping experience expected for tissue categories is also low, the easier we make it for the shopper, the more enjoyable it can be and probably less traumatic.

Studies and retail experts state this category will be soon an “online category”, for two reasons: there is no need to be carrying bulky and big items back home if you can purchase online and get them easily delivered; and digital menus facilitates the process by organising the SKUs by “needs”, while product placement in a physical store can be very confusing and not encouraging.

To improve the shopper experience and deliver value, I classified four important

steps that can be followed by brands to achieve better satisfaction levels. The first of them is positioning, which encourages brands to define the main attributes of each sub-category and focus on them, being consistent and encouraging the complementary usage when the SKUs can be combined. The toilet paper Neve, a Kimberly-Clark brand in Brazil, created a fantastic campaign to show how humid wipes can complement the usage of toilet paper.

Choosing a loud and clear way to communicate these main attributes also facilitates the purchase process: use of colour code on the packaging makes the product as visible as possible, and starting to move the communication from puppies to people – closer to our reality.

Be inspiring to your shoppers and educate them on having a better use of your product, on not wasting and on being more conscious with their consumption. You can be more sustainable and show your compromise with a real cause associated with your segment.

Work as hard as you can to make the process engaging by offering trials and by actually thinking with an omni-channel perspective – establishing a dialogue online and offline and being digitally focused, once this is the already present future.

Quilted Northern did that in the USA, launching a great campaign with Amazon to offer to digital shoppers 45% discount once they subscribed for an automatic product delivery.

From one side, we have the multi-shoppers pursuing complementary products and purchasing with a multichannel behaviour (offline and online). On the other side, brands are absorbing their behaviours to offer a consistent content template for their portfolio, identifying the most relevant content calendar for each sub-category in order to address customised promotions and campaigns.



HERGEN with ASME Certification

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In a constant search to improve the quality of its product, Hergen has now the ASME Certification for pressure vessels.

What is ASME Certification?

It is the accreditation given by ASME to companies that fit to the strict quality standard defined by them.

The ASME standard is accepted in 80 countries and it is mandatory for supplies to USA and Canada.

Quality Guarantee

The ASME Certification is a result of hard work and investment done by Hergen to accredit its Drying Cylinders, Yankee Dryers for paper industry and pressures vessels manufacturing facility.

This certification gives to Hergen's customers the assurance that they are acquiring products which meet the toughest quality control, that ranges from design, purchase of raw material, manufacturing process to the use of modern tools to assure the quality of the welded joints.



Unprecedented number of tissue machines installed since 2010

With tissue consumption growing at a rapid pace in emerging markets, particularly in China, an unprecedented number of new tissue paper machines have been installed.

Numera's analysis shows that 327 new tissue paper machines with an annual capacity of 10,000 tonnes or higher have started up since 2010, adding approximately 11 million tonnes of new supply. By comparison, global suppliers added 188 new tissue machines in the preceding seven-year period (2003-2009), or 5.5 million tonnes.

Not surprisingly, nearly 60% of these new machines (194 units) are located in China. Together they have added 6.0 million tonnes of supply to the Chinese market where over the period 2010-2016 tissue consumption has expanded 8% per year.

Another 24 machines have been installed in Other Asia Pacific, mostly in Indonesia, and a further 20 in the Middle

East, which includes 10 in Turkey. There have also been significant investments in Latin America where 34 new units are located.

Overall, 89% of the machines, accounting for 86% of the new supply globally, are in the emerging markets. In the developed markets, most of the investments were in Western Europe (13 units) and North America (14 units).

Of the 325 new tissue paper machines, the average machine capacity rose 20% to 34,000tpy from the years 2003-2009. Moreover, one-third of the new machines had an annual capacity greater than 40,000 tonnes.

In North America and Western Europe, more than half of the newly installed units had an annual capacity greater

E

David Vallieres

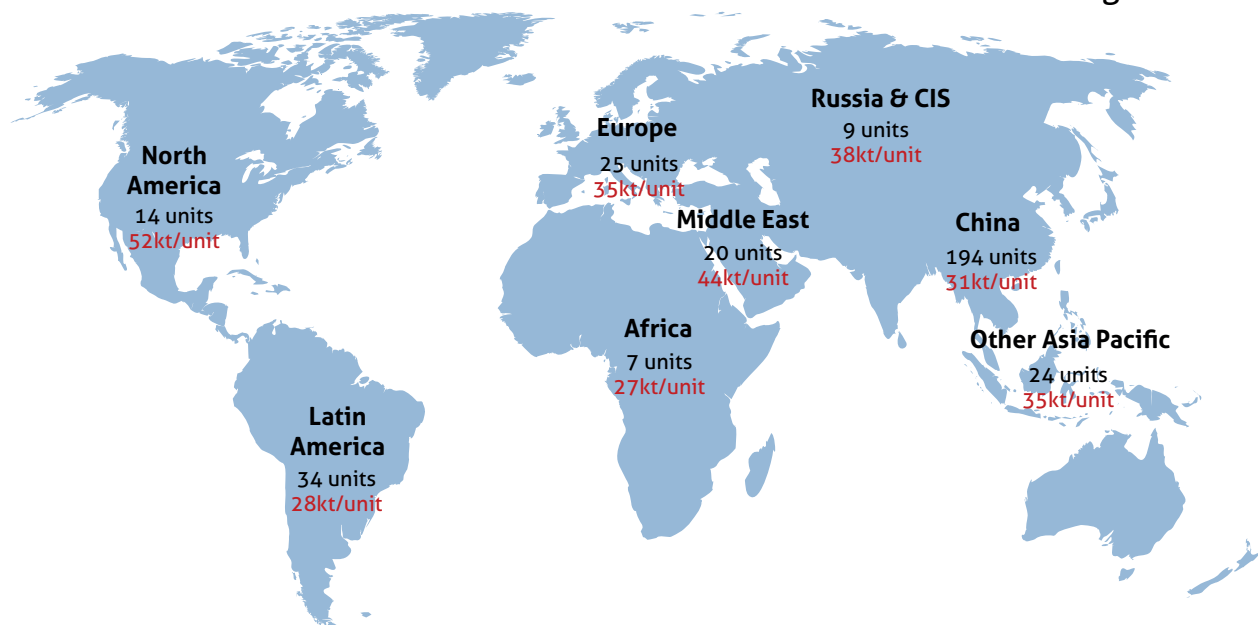


Senior market analyst,
Numera Analytics

than 40,000 tonnes. The average annual machine capacity in China was 33,000 tonnes, up from an average of just 21,000 tonnes during 2003-2009.

60% of new tissue machines in China

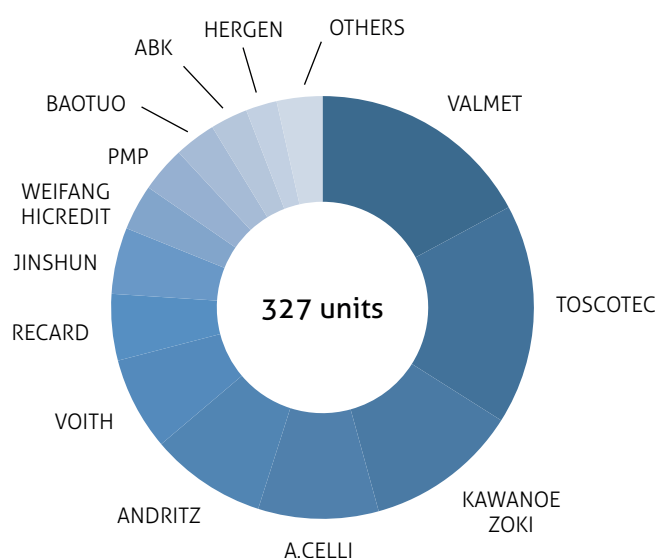
Tissue machines installed during 2010-2016



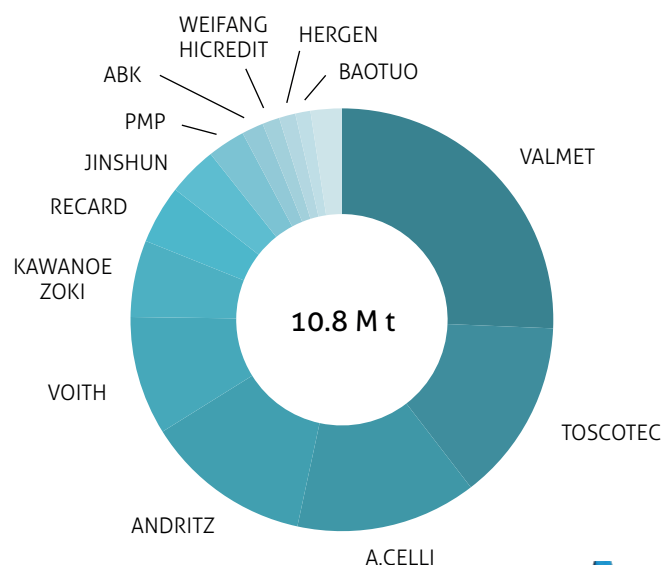
Valmet clearly tops ranking based on tonnage

Tissue machines installed during 2010-2016

based on number of units installed



based on total tonnage



Source: Numera Analytics



It's in North America that the largest machines have been built. Over the past seven years, the average capacity of new PMs was 52,000 tonnes, more than 50% larger than the global average. Of those, half have TAD technology. Machines have also been above the global average in the Middle East, at 44,000 tonnes.

A few large machinery vendors dominate the market for new tissue machines. Numera estimates that Italian supplier Toscotec and Finnish company Valmet both had a 17% share of the newly installed tissue machines. The next three vendors, Kawanoe Zoki, Andritz and A.Celli, had a combined 30% share of new machines, meaning the five largest machinery vendors accounted for close to two-thirds of all new tissue machines.

A different picture emerges when viewed by average machine capacity. Valmet's machines had an average capacity of 51,000 tonnes per unit while Toscotec's average capacity was 28,000 tonnes, or about half the size.

Numera estimates that Italian supplier Toscotec and Finnish company Valmet both had a 17% share of the newly installed tissue machines. The next three vendors, Kawanoe Zoki, Andritz and A.Celli, had a combined 30% share of new machines, meaning the five largest machinery vendors accounted for close to two-thirds of all new tissue machines.

Similarly, Andritz and A.Celli had an average machine size well above the global average, at approximately 50,000 tonnes, while Kawanoe Zoki units averaged just 17,000 tonnes. So measured in terms of installed capacity over the period 2010-16, Valmet occupies the top position with 26%, well ahead of Toscotec, A. Celli and Andritz which are close together, each with a share of 13-14%.

Surprisingly, even after this period of very rapid growth, tissue capacity is expected to continue to expand about 5% per year during 2017 and 2018, which represents an additional four million tonnes of capacity in just two years.

Future projects shows 70 new machines announced for 2017 and 2018, which would mean 35 PMs per year, down from 47 per year during 2010-2016. However, the average machine size is continuing to expand.

The average capacity of PMs scheduled to enter production in 2017-18 is 44 000 tonnes per year, which would represent an increase of 30% over the machines installed during the 2010-16 period.

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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
MIAC	October 11-13, 2017	Lucca, Italy	www.miac.info/
ISSA/INTERCLEAN ISTANBUL	October 18-20, 2017	Istanbul, Turkey	www.issainterclean.com
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



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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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☐ Consulting services. Please specify field:
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