

The independent news provider for the global tissue business

# TWM

TISSUE WORLD MAGAZINE

**GREECE: Tissue resilience**  
A collapsed economic market  
still seeing 2% tissue volume growth

**Tissue expansion and future plans:**  
APP's Greenbury and Muljadi talk to TWM  
Pöyry and F.A. RETAIL discuss private label versus brands

**Plus:**  
**Focus On:** Fisher International reports on SE Asia  
**EXITISSUES:** Engaging Southern America in the world production chain





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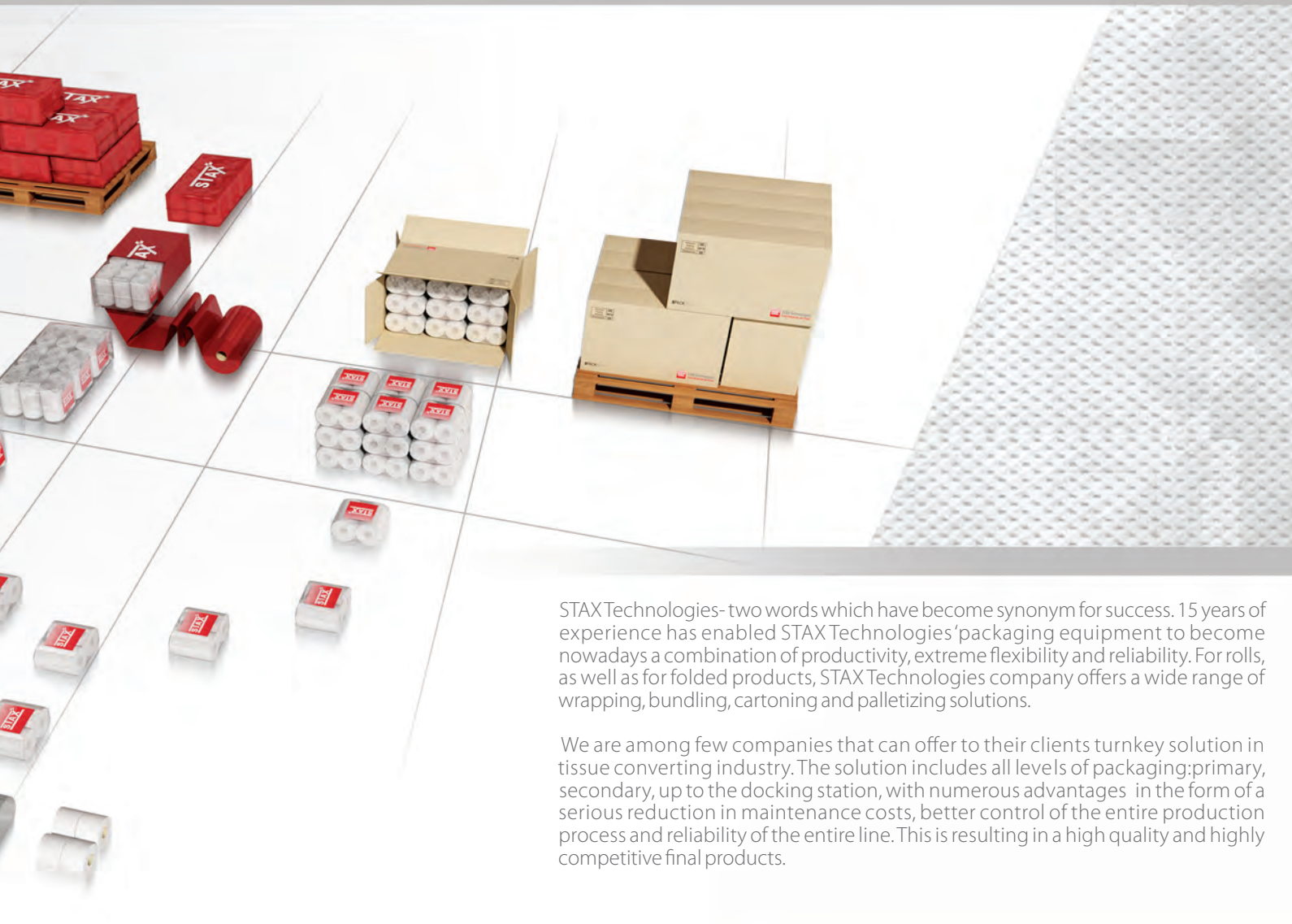


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Purchase insights: Every tissue category requires different purchase behaviour. F.A. RETAIL talks to TWM, p.36

APP's Aida Greenbury discusses overcapacity, sustainability and opportunities, p.7

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# TWM

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# Tissue tough enough to withstand the Greek tragedy ... so far

It is the least wanted of distinctions, but Greece's woes do give the industry the chance to study how tissue is able to perform in a country enduring economic collapse. The answer, set against a shrinking industry base, is it is performing surprisingly well.

2014, well into the protracted austerity and before the most recent bail-outs, saw a positive sales trajectory in retail consumer tissue, slowed a little from the previous year but still expected to be positive until 2019.

The Greek market share in Western Europe's T&T market is tiny, at 2% roughly equivalent to countries of comparable populations such as Belgium or Portugal, but it's clear to see an underlying strength of the product. Greece boasts one of the highest per capita consumption rates in western Europe. Bathroom tissue is almost 100%. Greeks see many products as essentials. Tissue has status.

Promotion and discounting have featured significantly, so there is always the looming problem of maintaining that status and revenue should discounting become too entrenched.

## Market adaptability

Consumers and entrepreneurs have adapted: shoppers buy bulk and multi-functional on price and convenience, or more often for immediate-need; and HORECA operators opt for rapid turnover from retail rather than stock-piling from wholesale channels. Across the board the private label v brands battle is intense. Well pitched diverse packaging options, designed to secure long-term brand loyalty, have been successful.

Mills have seen contraction, and determined survival. Bankruptcies and closures saw an end to production at five paper machines in recent years. Capacity and production are low. The average speed of Greek machines is on the low end, and it is among the highest cost countries even before facing up to much needed environmental restructuring.

In just one mill has there been a new installation... at Maxi Paper in Katerini, northern Greece. Our Operations Report gives us the inside story of survival.

## Asia Pulp and Paper: expansion in an oversupplied market

APP's Hoany Muljadi says: "We believe overcapacity in China is a short term phenomena. Over the next decade even more capacity will be required. We see ourselves as long term players and short term challenges do not distract us from our path."

This issue's MarketIssues sees Muljadi and Aida Greenbury talk about the company's recent further expansion in the Chinese tissue market, despite the substantial oversupply. While China's tissue consumption growth is slowing down, more projects and players are targeting the country and region at large. Many more have been forced to put projects on hold: APP is no exception. The region's global significance is emphasised further by European tissue giant SCA's strategically important move into the market through the purchase of China's third largest tissue company Vinda.

With no clear view of when the overcapacity situation will be resolved, understanding the strategy of the country's key tissue players is more vital than ever.

## Tissue World Jakarta update: conference merged with Tissue World Shanghai

TW's planned focus on Jakarta and the great potential which exists in the region of South East Asia is to be combined in a dedicated session with Tissue World Shanghai 2016. That way the varied cultures and markets of a too long overlooked region will get the coverage it deserves, but has been lacking to date. For more information, see our news story on page 10 of World News.



Helen Morris



Editor,  
Tissue World magazine

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# APP welcomes competition from multinational and local players ... it's just that it means to win

*Asia Pulp & Paper's Chinese tissue division is to bring six new tissue machines on stream making a total new capacity of 354,000tpy – around 30% of the one million tpy of new tissue capacity coming online in China in 2015. TWM interviews Hoany Muljadi and Aida Greenbury.*

## Hoany Muljadi

Director of APP Group's Tissue Division

### TWM/1 How is APP looking to grow further in the global tissue market?

**Muljadi:** "The tissue market globally is going through mega shifts. While there is slow growth in the developed world, in the developing and emerging markets with increasing prosperity consumers are becoming more conscious of personal hygiene.

"Given our strong footprint in the developing markets APP is well poised to take advantage of this trend over the coming decade ahead. In addition there is huge scope to enter new markets and new pulp and tissue based categories. Our vision is to have number one brands which are clear leaders in their market along with the best talent and capability. We are also a fully vertically integrated enterprise which will continue to give us scale and cost advantage. And of course, we will continue to expand our converting footprint both organic and inorganic to be a step ahead of the growth."

### TWM/2 What geographical markets are you targeting?

**Muljadi:** "We are uniquely placed. Our current strength is in developing markets where penetration and consumption is growing. So our intention is to further consolidate ourselves here particularly in Asia. For example China is very important for us. It will become the world's largest tissue market by 2019 and we want to further consolidate our number one position in the categories we are present in and extend beyond.

"Second, we are beginning to enter the developed markets such as Japan. This is new opportunity for us."



"We are beginning to enter the developed markets such as Japan. This is new opportunity for us."

Hoany Muljadi

### TWM/3 Where do you see most growth for tissue products in Asia?

**Muljadi:** "We see the most growth in developing and emerging markets such as Indonesia, China and India where a growing middle class means more consumers focus on tissue products. And as we build relationship with global players there will always be private label opportunity as this is a strategic component to their global strategy. With this in mind, private label is something APP will seek to manufacture for those retailers.





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Abstracts should be sent to Jyothi Rajan, Tissue World Conference Manager, at [jyothi.rajan@ubm.com](mailto:jyothi.rajan@ubm.com) on or before 30th September 2015.

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"Furthermore, APP is currently undertaking significant consumer research across Asia as we continue to put consumers at the centre of our market decisions. Our brands are already in strong position in most of our footprint. We also have competition from both multinational and local players which we welcome. Competition will lead to market development and finally consolidation to a few winners.

"The AfH opportunity in Asia is also huge. With increasing prosperity, travel and tourism is becoming more and more a part of our consumers' lives while eating out in restaurants and hotels is also increasing. There is no shortage of opportunity to meet their needs in these locations. Our Livi brand is an essential driver for our AfH Go to Market strategy."

#### **TWM/4** Is APP looking to acquire further in the tissue market or will future growth be organic?

**Muljadi:** "It will depend on the acquisition opportunities which are limited due to the few serious and long term players in the market. However, current focus is on working markets smarter to grow our share of market."

#### **TWM/5** What are the main opportunities for APP in the tissue market?

**Muljadi:** "Being an organisation that believes in sustainability and doing significant work in that space we believe the key opportunity for us is to provide consumers with an environmentally-friendly choice while at the same time providing better value because of our vertical integration. So good value while caring for the planet."

"In addition, we also aim to explore beyond tissue applications, like wet wipes and disposable products to further strengthen our position and leverage synergies in terms of brand and distribution."

#### **TWM/6** What are the three main challenges for APP in the tissue market?

**Muljadi:** "We look at our challenges as opportunities. We have the opportunity to build strong brands with global positions that resonate with our consumers. We have a number of brands which are very well known in their footprint such as Paseo and Breeze which we will extend further. "The second opportunity is in deep

consumer understanding which allows us to build a strong innovation pipeline that serves our consumers' evolving needs. In the future in addition to hygiene we see opportunities in beauty care as well.

"The third opportunity for us is in the area of talent and culture. We are now building a solid talent base which any organisation can be proud of and bringing in a professional and winning culture.

"We truly believe our success in future hinges on our brands, our people and our winning organisational culture."

**"We also aim to explore beyond tissue applications, like wet wipes and disposable products to further strengthen our position and leverage synergies in terms of brand and distribution."**

Hoany Muljadi

#### **TWM/7** How are you reacting to overcapacity in the Chinese tissue market? Do you expect the situation to change in the short or long term?

**Muljadi:** "We believe the overcapacity situation in China is a short term phenomena as China will soon become the biggest tissue market in the world. In fact over the next decade, even more capacity will be required. We see ourselves as long term players and short term challenges do not distract us from our path. We believe, in China, finally the biggest will win and consolidate."

#### **TWM/8** How has recent M&A activity in Asia changed the tissue market, and what challenges has it brought for the market?

**Muljadi:** "SCA's purchase of China's third largest tissue company Vinda means it has prioritised Asia as a key market to win which in a way validates our long term

strategy. We always welcome competition as we are confident about our recipe for success."

#### **TWM/9** How important is product innovation and sustainability for APP?

**Muljadi:** "We believe in providing our consumers with high quality product whilst caring for the planet. We have a well-established R&D department which is continuously working on creating products that make our consumers' lives better and easier.

"Our sustainability journey has been accelerated in recent years, with the company going through a rather significant change in the way we operate as a natural resource reliant business.

"Our zero deforestation commitment has been critically important, not only for the preservation of natural forest, but for the indigenous people, communities, workers and flora and fauna that live within and around it. It is because of this that we made a clear commitment in February 2013 to the immediate end to natural forest clearance within our supply chain with the announcement of our Forest Conservation Policy.

"To build on this, in April 2014 we announced what we consider to be the largest commitment of its kind in Indonesia, to restore and support the conservation of one million hectares of rainforest across Indonesia. Protecting and restoring strategically selected areas on a landscape level is a vital part of the zero deforestation puzzle. By doing this we can ensure that as much valuable habitat as possible is protected against further encroachment.

"We believe that by assessing entire landscapes and creating clear tailor-made objectives and strategies, the maximum possible level of protection will be achieved, not just for the natural forest in our concessions, but for areas around them as well.

"We feel our Forest Conservation Policy is one of the most ambitious plans to tackle deforestation in the world, but we are just one company and we need help to tackle deforestation. That is why we are encouraging our customers and the wider market to adopt similar zero deforestation policies within their procurement, CSR and sustainability policies."





**Aida Greenbury**  
Managing director of sustainability  
and stakeholder engagement, APP

## TWM/1 How has it been for you overseeing the process of APP becoming PEFC-certified? What were the main challenges and opportunities?

**Aida Greenbury:** "All APP mills have been PEFC (Programme for the Endorsement of Forest Certification) Chain-of-Custody certified for several years. What's recent is that the Indonesian Forest Certification Corporation (IFCC) was formally endorsed by PEFC in October 2014 and that two of APP's suppliers have achieved IFCC-PEFC certification and can provide a local source of PEFC certified material.

"This is welcomed but in a quest to be constantly advancing and challenging our ongoing Forest Conservation Policy (FCP) and landscape approach commitments, we always try to embrace all credible certifications and continue to seek to go beyond PEFC's requirements."

## TWM/2 Where next for APP in terms of your environmental and sustainable efforts?

**Greenbury:** "Our core focus is on implementing our Forest Conservation Policy (FCP) and its landmark zero deforestation commitment. The recent Rainforest Alliance evaluation of our progress was very helpful in highlighting our success to date and where we need to continue to progress, which we formalised into our implementation plan for 2015 and beyond.

"At a high level, this includes the complex and challenging issues of third-party forest clearance, wildfire management and prevention, protection of High Conservation Value (HCV) lands within our supplier concession areas, development of best practices for operations in and protection and restoration of peat land, continually enhancing social conflict resolution and ensuring the rights and welfare of our suppliers' workforces. Our implementation plan is large and complex, but we've made great progress in two plus years and I am confident that we're on the right track."

## TWM/3 Could you give some case-study details about a tissue site that has achieved PEFC-certification? How did you find the process, has the site become much leaner, more energy efficient?

**Greenbury:** "We've been making major investments in our overall fibre supply as the business expands and we implement the FCP. This includes chain of custody systems and traceability to provide assurance we are meeting zero deforestation commitments and legal requirements of policies like the European Union Timber Regulation (EUTR). PEFC and other national schemes such as TLTV (Timber Legality and Traceability Verification), PHPL (Sustainable Production Forest Management) and LEI (The Indonesian Ecolabelling Institute) certifications help reinforce this. As an integrated supplier, I believe APP has an advantage over its competitors in that we have more direct control of our fibre supply rather than needing to purchase all on the open market."

## TWM/4 Are you seeing much demand for environmentally-friendly products in Asia?

**Greenbury:** "Yes. I believe Asia will eventually become the market leader for environmentally-friendly products, which is confirmed in recent research and sales data. Nielsen for example, found that Asia-Pacific consumers indicated a higher willingness to pay more for products and services provided by companies perceived as socially and environmentally responsible<sup>1</sup> than consumers in other regions.

"This is likely due to consumers across Asia being more exposed to the negative environmental consequences in their communities. Take climate change for example – the Pew Research Centre recently found that Asia-Pacific, Latin America and Africa are leading the way in their concern for climate change, and this is partly because consumers in these regions feel increasingly exposed and vulnerable to ecosystem damage. Consumers across Asia increasingly see the link between product choices and environmental impact, and are rewarding companies they perceive are most responsible."

1. <http://www.nielsen.com/us/en/press-room/2014/global-consumers-are-willing-to-put-their-money-where-their-heart-is.html>





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## CHINA

### APP China brings six tissue machines on stream, building another unit at new Chinese mill; new capacity totalling 354,000tpy

Out of the one million tonnes/yr of new tissue paper capacity coming online in China this year, APP China probably accounts for around 30%.

Since late last year, the company has commissioned four large tissue machines (two each at its Suzhou plant in Jiangsu province and the Xiaogan mill in Hubei province) and two medium-sized PMs at the Yangpu complex in Hainan province.

Each of the four larger PMs has a width of 5.6m and an operating speed of around 2,000m/min, with a capacity of 60,000tpy.

All four machines were provided by A Celli, with Steel Yankees manufactured by other European suppliers such as Andritz.

The two smaller 2.8m-wide PMs were assembled by APP China's subsidiary, Jinshun Machinery. Each has a capacity of 27,000tpy.

The startup of the six machines, which have a combined capacity of 294,000tpy has taken APP China's total tissue capacity to 1.4 million tonnes/yr, the largest in the country.

The one million tonne/yr of new Chinese capacity figure is from the latest statistics compiled by the China National Household Paper Industry Association (CNHPIA).

The association estimated that the country's tissue capacity may rise to 10.44 million tonnes/yr by the end of this year, up by 10.6% from 9.44 million tonnes/yr in 2014. But the Chinese market can only handle some half a million tonnes/yr of net new capacity annually, according to the CNHPIA. And the country has already been overburdened with a surplus following rapid tissue expansion in the past several years, which has led to stagnant pricing and dwindling profitability.

An APP China senior executive said: "We are aware that the domestic market is saturated and is unable to absorb any new capacity. However, we still have to finish those projects that have been developed and are under construction."

A few years ago, when the Chinese tissue industry was the last sector where the profit margins were particularly attractive, a number of firms entered the sector. Many of them had no background in the industry. Such bandwagon-jumping has resulted in an explosion of new capacity.

APP China played a leading role in the phenomenon.

But the swamped market has been forcing the company to radically slow down its aggressive expansion plans since early last year.

The APP contact said: "I believe there are hidden agendas in the investments. Many firms aimed to obtain land use rights and low-interest bank loans, which can be secured when an expansion plan is approved by the government.

"I believe a big fraction of such projects in the pipeline will not get started in the end." At APP China's Suzhou mill, two 60,000tpy tissue machines have been delivered to the site by Valmet.

With no clear view of when the overcapacity issue will be resolved, the firm is not sure when the two units will be erected.

New tissue mill in Sichuan: In China's south western province of Sichuan, APP China is building a greenfield tissue facility at Suining city.

The company has kicked off installation work for a 60,000tpy A Celli PM at the plant, with startup expected by the end of this year.

The new Suining mill, along with the Xiaogan facility in central China, are part of APP China's plan to tap into the country's inland market.

Investments there are also aimed at spreading out the company's production bases nationwide.

Its oldest plant is located on China's southeast coast in Suzhou, while in Hainan, the country's southernmost island, it operates the massive integrated Yangpu complex.

The Yangpu mill runs a 1.8m tpy bleached hardwood kraft pulp line, a 1.6m tpy coated fine paper machine, and 26 tissue machines that have a combined capacity of almost 800,000tpy.

While there is no room for new machines at the Yangpu facility, APP China has planned for further expansions at its Suining, Xiaogan and Suzhou sites.

The company reckons that ongoing rapid urbanisation will continue to boost demand for tissue products, such as toilet paper, as people move into apartments with flush toilets.

It also believes that as many current investment projects will end up being shelved due to the harsh market situation, when the country's economy sees improvement, it will be well positioned to meet the next wave of demand growth.

News from RISI ([www.risiinfo.com](http://www.risiinfo.com))

### Zhejiang Jingxing Paper starts up second TM with Steel Yankee

China's Zhejiang Jingxing Paper has started up a second TM with Steel Yankee.

Supplied by Andritz, it follows the start-up of TM1 in January.

The PrimeLineST C8 machine has a design speed of 1,900m/min at a width of 2.85m.

The Yankee has a diameter of 18 feet. In combination with its head insulation and the steam-heated hood, it enables a high drying capacity at reduced energy costs.

Zhejiang Jingxing Paper produces high-quality facial wipes and toilet paper grades at its tissue mill in Pinghu City, Zhejiang Province.

### Lee & Man starts up new 60,000tpy tissue PM in Chongqing, China

Lee & Man Paper Manufacturing has commissioned a new 60,000tpy tissue PM at its mill in Chongqing municipality, China. The Voith unit has raised the firm's tissue capacity to 90,000tpy.

The board giant expanded into the tissue segment last year by acquiring a firm called Guang Kai.

In November 2014, its wholly-owned subsidiary Able Advance International got a 100% share of Guang Kai, which had been owned by spouses Patrick Lee and Lee Wong Wai Kuen.

Patrick Lee is also Lee & Man's controlling shareholder.

Guang Kai runs two tissue PMs with a combined capacity of around 30,000 tonnes/yr at Lee & Man's mill in Chongqing. Another 60,000 tonne/yr tissue PM is under construction at the same mill.

The Valmet unit will have a design speed of 2,000 m/min and a width of 5.6 m.

Startup is scheduled for later this year.

In the meantime, Lee & Man is planning to launch its own branded tissue products on the Chinese market this year.

Besides its tissue units, the Chongqing mill also houses several recycled containerboard PMs with a combined capacity of around 1.1 million tonnes/yr and a 165,000 tonne/yr bamboo pulp line.

News from RISI ([www.risiinfo.com](http://www.risiinfo.com))



## A.Celli Paper supplies five tissue rewinders to APP China

A.Celli Paper has said it will supply five tissue rewinders to two of APP's facilities in China.

The rewinders model AC 882 are characterised by a paper format of 5,630 millimetres and attain working speeds of up to 1,400m/min with paper that goes from 12.5 to 45g/m<sup>2</sup>.

With a parent reel diameter of 3,100 millimetres, the customer obtains a finished roll having a max diameter of 2,250 millimetres.

## NORTH AMERICA

### Resolute set with order for Valmet NTT Advantage for launch at Calhoun mill

Resolute Forest Products will launch into the North American tissue market in 2017 behind a Valmet NTT Advantage machine, a new unit that is growing in interest globally because of its production diversity.

Resolute recently announced the order for its Calhoun, TN, mill, with machine startup in first quarter 2017.

It would be the third NTT Advantage in the North America/Mexico region. The first was started up last year by Fabrica de Papel San Francisco in Mexicali, Mexico. By yearend, von Drehle is to start up one in Natchez, MS.

Two others are planned by Chilean Forestal y Papelera Concepción and Abu Dhabi National Paper Mill, a Valmet official said.

The Advantage NTT makes both conventional- and premium-quality papers with virgin pulp or recovered paper furnish. Resolute's PM is to run on 100% virgin pulp including some integrated pulp made at Calhoun. The paper will be converted into premium-quality private-label consumer tissue products as part of a \$270 million project. The Calhoun mill, formerly owned by Bowater, now makes newsprint and uncoated groundwood paper on three machines, and southern bleached hardwood market pulp. The mill is near Georgia's border in the southeastern corner of Tennessee.

"The selection of the Advantage NTT tissue machine is in line with our promise to retailers to install equipment that will offer the highest quality and the differentiation they seek for their store brands," said Resolute pres/CEO Richard Garneau in a release.

Premium and ultra product demand has increased significantly in the USA. A total of 70% of US bathroom tissue is now ultra and premium vs 50% in 2008. It's the same with kitchen towels, with a 70% share last year for ultra-premium, according to the RISI Outlook for World Tissue Business Forecast.

The NTTs enter the US and Mexico market following the start of eight through-air-dried (TAD) and eTAD machines the last five years. Also, two Atmos machines started in North America since 2011.

The NTT and Atmos units are to offer lower-cost, higher-quality for softness that competes against TADs, which Procter & Gamble and Kimberly-Clark pioneered in the early 1960s in the USA. "The Advantage NTT machine is equipped with an engraved NTT belt that ... gives a soft conventional tissue roll while a coarse NTT belt is used for top quality products with very high bulk," according to Valmet. "The energy consumption is significantly lower compared to any other way of making tissue products, since it relies upon improved pressing to aid water removal."

- Two Yankee dryers for St. Croix Tissue at the Woodland Pulp mill were said to be delivered in July in Baileyville, ME, the Bangor Daily News reported. The company is to start one conventional tissue PM in 2015 and another in 2016, as part of a \$120 million project.

News from RISI ([www.risiinfo.com](http://www.risiinfo.com))

## SOUTH EAST ASIA

### Tissue World Jakarta update: conference merged with Tissue World Shanghai.

Tissue World's planned focus on Jakarta and the great potential which exists in the region of Southeast Asia is to be combined in a dedicated session with Tissue World Shanghai 2016.

That way the varied cultures and markets of a too long overlooked region will get the coverage it deserves, but has been lacking to date.

TW has decided reluctantly to postpone the Jakarta conference due to the insufficient number of innovative, relevant and unique papers from the ASEAN region submitted. The response would not have reached the high standards to which TW always aspires to make our platforms a compelling meeting for the industry to attend.

The material received did not add substantial new information to the discourse, and we do not intend to fill the gap by resorting to past presentations we have already hosted in other conferences.

TW is convinced, however, that Southeast Asia is of major importance and will therefore be given special focus and attention next year during Tissue World Shanghai in a dedicated conference session. Tissue World Shanghai 2016 will be held from December 7-9 at SNIEC.

## BRAZIL

### SCA invests further in Brazil with new incontinency facility

SCA is set to invest SEK 650m in a new production facility in Brazil for the manufacture of incontinence products.

The company is now the second largest in the Brazilian incontinence marketplace with its global brand TENA and local brand Biofral following an acquisition in 2011.

Production at the new facility is scheduled to commence in 2016.

Brazil is one of SCA's prioritised emerging markets and is the third largest retail market in the world for incontinence products.

Magnus Groth, president and chief executive of SCA, said: "This investment will increase our production capacity and improve our profitability in Brazil in the long term."

"It enables us to capitalise on the growth opportunities that we can see in the Brazilian market for incontinence products and to potentially launch other product categories in the future."

The new production facility in Jarinu, Brazil, will replace the smaller existing plant.

In 2014, SCA's net sales in Brazil amounted to SEK 514m.

## GLOBAL

### K-C sales for consumer tissue down 8% in 2Q

Kimberly-Clark (K-C) has reported second quarter sales of \$1.5bn for its consumer tissue segment, a decrease 8% year-on-year. The tissue giant explained the result on currency rates that were "unfavourable by 9% and net selling prices were down 2% while volumes were up 3%". However, the division's second quarter operating profit of \$260m increased



8%. It benefited from "cost savings, lower manufacturing-related costs and reduced marketing, research and general expenses, partially offset by unfavourable currencies and lower net selling prices."

Sales in North America were even with the year-on-year period and volumes increased 5%.

Volumes rose high-single digits in bathroom tissue, with benefits from increased promotion shipments on Cottonelle. Volumes increased low-single digits in facial tissue and paper towels.

Sales in developing and emerging markets decreased 20% including a 23 point negative impact from currency rates.

Net selling prices increased 2% and volumes advanced 1%

Sales in developed markets outside North America decreased 13% driven by unfavourable currency rates.

As a group, the company reported second quarter 2015 net sales of \$4.6bn that decreased 6% compared to the year-ago period, a result of changes in foreign currency exchange rates which reduced sales 10%.

Organic sales rose 4% including a 10% increase in developing and emerging markets.

Chairman and chief executive Thomas J. Falk said: "We continue to execute our Global Business Plan strategies well.

"In the second quarter, we delivered mid-single digit growth in organic sales and adjusted earnings per share from continuing operations. We also achieved significant cost savings and improvements in adjusted gross and operating margins.

"In addition, we made further progress with targeted growth initiatives, launched product innovations and allocated capital in shareholder-friendly ways."

### A.Celli targets tissue and nonwovens market with TANDEM launch

A.Celli has launched TANDEM, a rewinder that it said is both affordable and flexible. It is characterised by high production flexibility: A.Celli said it optimises production and line productivity, which can both be achieved with this line, thus limiting investment.

A.Celli Nonwovens TANDEM is an additional rewinder, external to the line, that manages the particular needs for volume, diameter and cutting formats while at the same time "guaranteeing extra capacity during peaks in production".

It is customisable, plug-and-play, perfectly adaptable and compatible with any standard rewinding system or complete line for both tissue and nonwovens.

### Clearwater out with August hike on its consumer products

Clearwater Paper, North America's second largest private label tissue product player, announced an August price increase on its consumer products, contacts said.

The company alerted customers in June. The amount of the increase was unclear, but it would be the first consumer price increase since First Quality Tissue's 8% consumer hike last summer.

No others announced consumer tissue increases last summer. Also, Away-from-Home tissue prices increased up to 10% since last summer in North America.

If major producers such as Georgia-Pacific (GP), Procter & Gamble (P&G), and Kimberly-Clark (K-C) announce price increases, it would be the first broad-based consumer products increase on a list basis in North America in four years. In the summer of 2011, P&G, K-C, Clearwater, and Cascades set 5-7% increases for their consumer products, and AfH increases were out from GP, K-C, SCA Tissue, Wausau Paper, and Cascades, according to PPI Pulp & Paper Week.

US capacity since last 2010 has continued to expand quickly, competition for retail and grocery store shelf space has heated up between big brand and private label players, and the broad price increase attempts rare.

"While business in general is in favour of the producer right now, I don't see it strong enough based on what I'm hearing on the finished product side to warrant a price increase," said a contact with a smaller producer.

The contact suggested that prior to September "perhaps someone is taking early steps to try and set the table in their favour."

Contacts also noted elevated pulp prices were impacting producers, related to price increases. Some companies reduced the number of sheets in their products that effectively gained them higher pricing per unit. K-C first announced publicly that it was de-sheeting in second quarter 2013.

In February, Clearwater executives said they were working to increase the company's consumer products earnings by at least 50% in the next two to three years.

News from RISI ([www.risiinfo.com](http://www.risiinfo.com))

### Omet's Koala, Raccoon and Chameleon launches target tissue market

Omet has launched a range of innovations that target the tissue industry.

'Koala' introduces magnetic plates in replacement of embossing cylinders which Omet said makes the changing of embossing "simple and low-cost".

It uses the company's revolutionary embossing change system technology. The changing of the embossing takes place through the replacement of two



A.Celli launch characterised by high production flexibility



magnetic plates (and not the whole cylinder), coupled, placed on a plain embossing cylinder.

The company said: "In practice, the operator no longer has to handle the heavy embossing cylinders, but simply apply to them – which remain in a fixed position on the machine – the magnetic plates bearing the design of the chosen embossing."

It added that using this embossing unit means equipment costs are lowered by 90% or more and their procurement times are shortened, thus eliminating the risk of receiving incompliant cylinders.

The company has also launched Raccoon, which it said redefines the washing of the printing section of tissue converting machines.

It is a newly developed washing system for flexo plates built in the machine. The water pumping in the pipes fully eliminates the processing waste with the objective to increase the printing quality level.

Omet said its simple design offers a superior performance and improves the present equipment on its own tissue converting machines produced up to now.

Chameleon – Omet's final launch – is a 'direct-print' system where a computer installed on the machine receives the variable graphic files and processes them according to precise parameters set by the operator

It completes Omet's machine range for tissue converting and realises the aim of printing short runs of disposable products with variable graphics and data. It changes the production process for

manufacturers of napkins and place mats about what is possible in terms of print and the criteria of customisation of the final product.

(News from RISI [www.risiinfo.com](http://www.risiinfo.com))

## AMERICA

### Bretting Manufacturing celebrates 125 years and five generations

Bretting Manufacturing has announced it is celebrating 125 years in business as the fifth generation of the Bretting family joins the ranks of managing the company headquartered in Ashland, WI. C. G. Bretting Manufacturing Co. was founded in 1890 when Christopher George Bretting purchased the Parish Manufacturing Company.

The company started out in the sawmill industry and has since transitioned itself from the mining and shipping industry to the paper converting market.

Today its primary focus is designing and manufacturing tissue and towel converting equipment which is sold worldwide.

Jerry Kasper, Director - International Sales, said: "Years of experience, technological advancement, and dedication to industry leading service are built into every Bretting converting line. Through continuous research and development, our product line is ever expanding with

creative and innovative solutions to meet the demanding market requirements with polywrapping equipment, interfolders, and napkin lines."

Product lines includes towel and tissue interfolders, hygienic rewinders, and specialty products such as equipment to fold wax paper and aluminum foil.

## SPAIN

### SCA Hygiene Spain boosts performance with rewriter upgrade

SCA Hygiene Spain has signed up A.Celli Paper to refurbish its Allo site's rewriter. The rebuild project will involve an updated service to move the rewriter assets as well as offering a major upgrade on the drive side and slitting unit.

A.Celli will dismantle the previous machinery on-site and install refurbished equipment with new drive, automation and safety systems, as well as the latest-generation cutting system.

The system started up in September 2014. With this new rewriter, A.Celli said SCA Spain has "gained in performance, instantly showing an improvement in paper quality and, consequently, a better finished product".

SCA develops personal care products, tissue, publication papers and solid-wood products with brands including TENA and Tork.

Its Spanish site includes incontinence products, baby diapers, feminine care products, consumer tissue and AfH tissue.

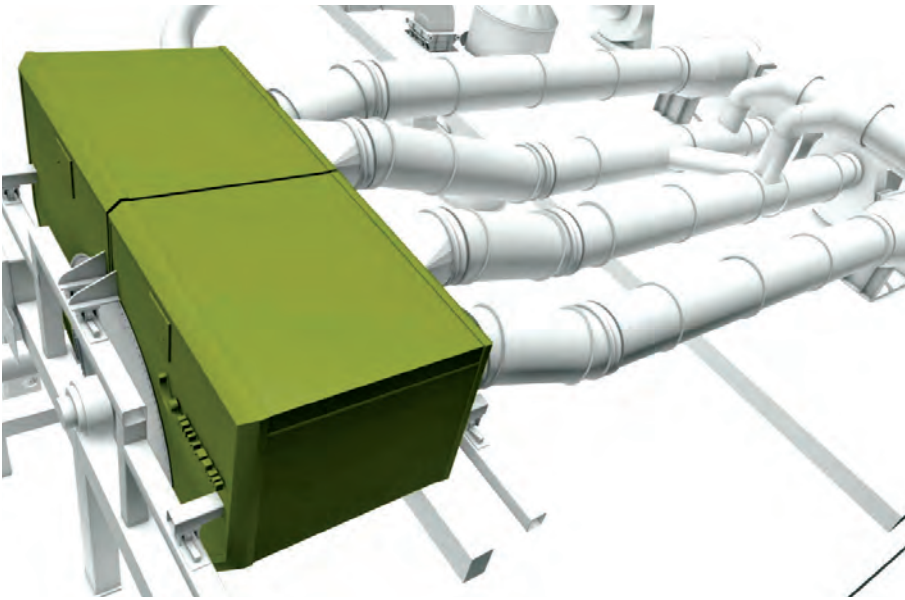
### ISMA 2000 S.L boosts capacity with rebuild

Spain's ISMA 2000 S.L has signed up Toscotec and its sister company Milltech to deliver a major dry-end rebuild of PM1 at its La Torre de Claramunt site.

The start-up of the rebuilt machine is scheduled for the beginning of 2016 and delivery includes a major rebuild of the PM1 dry end section, which will be replaced with a TT DOES (Drying Optimisation for Energy Saving) package. This will feature a new TT SYD-3600MM provided with Toscotec-patented solution for head insulation, a new Yankee steam and condensate system and a Duo-system Yankee hood, SMART



The fourth and fifth generations of the Bretting family: (L-R) Ricky Bretting, mechanical engineer (fifth generation), Paul Bretting, chief operating officer (fourth generation), David Bretting, president and chief executive (fourth generation) and Shawn Bretting, mechanical engineer (fifth generation).



The rebuild of ISMA 2000 S.L's PM1 will increase the crescent former machine's production up to 90 tpd

type, from Milltech.

The aim of the rebuild is to increase the production and performances of the Crescent Former machine up to 90tpd.

Fernando Luz, company general manager, said: "Our broad conclusion after a deep technical evaluation is that we are forced either to increase output for the same or less specific energy consumption input.

"This rebuild completes the one already initiated in the phase of pulp treatment allowing us to use complex raw material with high quality fibres and increasing efficiency and reducing energy consumption."

ISMA 2000 SL has operation centres in Catalonia and the Balearic Islands.

The main business in Barcelona produces tissue products, while in Mallorca it collects and recovers waste paper.

Products are made from 100% recycled paper and include: AFH towel, kitchen rolls, sheets stretcher rolls, napkins, toilet paper.

## EUROPE

### K-C Europe boosts capacity with TouchMax embossers buy

Kimberly-Clark Europe has finalised the purchase of four TouchMax embossers supplied by Gambini.

The company has invested in three TouchMax Large versions and one standard version.

It said the embossers "significantly modernise" its facilities because the

technology "offers the maximum flexibility in relation to the paper used".

TouchMax is a patented technology provided by Gambini and the supplier said it "provides an extraordinary flexibility during product changeover and multiplies the marketing opportunities related to the possibility of achieving different embossing patterns".

Due to the five steel embossing rolls on board with automatic change in three minutes, the TouchMax allows different pattern designs from branded products and Private Label products.

It also offers exclusive embossing patterns that characterise products and give them more value.

A spokesperson for Gambini said: "This is a real advantage for converters, since with a single embosser they can now extend their offer without affecting efficiency and productivity, being able to schedule a real-time production.

"Embossing tissue products is an increasing trend in Europe, where mature markets experiencing an increase in Private Labels stand alongside developing markets where the definition of quality is undergoing a rapid change.

"Flexibility during the production stage is a key aspect for all companies that need to differentiate their products to face the challenges imposed by the current competitive scenario."

The flexibility of the TouchMax is said to guarantee a consistent high quality of the finished product and high levels of safety since the configuration of the rolls chosen happens without operator intervention in the machine.

It also allows for the independent

configuration of the embossing on the upper and bottom webs to achieve different rolls for different technical type of embossing, diameter (even with the same amount of paper) and appearance, satisfying the demands for differentiation requested by customers and consumers and the needs of optimisation and continuity of production.

Kimberly-Clark Europe bought its first line from Gambini two years ago when a Flex 700 line with TouchMax embosser was installed at the tissue producer's Romagnano Sesia (NO) mill in Italy.

## POLAND

### Beskidy boosts capacity with new crescent former machine

Fabryka Papieru i Tektury Beskidy has started up a new crescent former machine supplied by Hergen Paper Machinery.

The HCF 920 SMART FIT machine has a capacity of 55t/d, a width of 2.8m and a working speed of 1,100 m/min producing tissue with basis weight from 13g/m<sup>2</sup> up to 30g/m<sup>2</sup>.

Located at the company's Wadowice site, the machine will diversify the company's product offering to include high quality virgin pulp tissue jumbo rolls. The Polish tissue sector continues to show a stable development trend.

Hergen Paper Machinery was the project leader and supplied complete engineering from stock preparation to rewinder and refiners, approach flow, HCF 920 Innova Flow headbox, Crescent Former unit, complete press section, Steel Ribbed Smart Yankee Dryer, gas hood and reel equipped with shaft Smart Puller.

The investment is part of a long term development programme by Fabryka Beskidy based on widening its product offering, production lines and improving energy savings.

## ITALY

### Voith files patent infringement suit against Toscotec

Voith has filed a patent infringement suit in Italy before the Court of First Instance in Rome against Toscotec.

In its complaint announced on 8 July,





# Some bonds are naturally stronger



Strong bonds lead to unique possibilities – in business as well as in chemistry. And that's precisely why we've acquired AkzoNobel's paper chemicals business. Additional expertise. A broader technology base. Greater presence where you need us most. It all adds up to a winning partnership with a shared commitment to innovation.

We've extended our capabilities so you can extend yours. Let's work together to build value into paper.

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Voith alleges that a tissue machine with shoe press technology of type Ahead 2.0S., version Shoe Press, produced by Toscotec in Italy and delivered to a paper mill in Portugal, infringes Voith's European Patent No EP 0 926 296 in Italy.

The company said: "The Voith Patent EP'296 protects Voith's shoe press technology NipcoFlex TTM in combination with suction turning roll for tissue machines.

"Voith fully respects the intellectual property rights of other companies and individuals and expects others to do the same. Voith remains committed to taking legal action against those who do not respect its intellectual property rights."

In reply to Voith's patent infringement allegations, Toscotec said: "Toscotec wishes to advise that on 5 December 2014 it filed an application before the Court of Turin in order to have Voith's patent no. EP 0926296 declared invalid due to the lack of requirements of novelty and inventive step.

"Furthermore, Toscotec has filed an application for an urgent precautionary measure before the Court of Rome, which is dealing with the suit initiated by Voith.

"By means of its application, Toscotec has requested the court to declare that (i) its tissue machine "AHEAD-2.0S, shoe press version" does not infringe Voith's patent no. EP 0926296, (ii) said patent is invalid, and (iii) Toscotec's above-mentioned machine does not interfere with Voith's above patent.

"Toscotec has always respected, respects and will continue to respect intellectual property rights of third parties.

"Toscotec has made a name for itself worldwide as one of the leading companies in the tissue machine manufacturing market, in particular for the quality and innovation of its products. "In the face of action aimed at discrediting Toscotec within the market, Toscotec reserves its position to take all appropriate action to protect its rights before the competent courts."

### It's Tissue event successfully held; second edition confirmed

The second edition of It's Tissue has been successfully held in Lucca between 21-28 June.

It's Tissue is a week's worth of open houses and other events where visitors can see, hear and touch technology, working with real products. The organisers Tissue Italy network have also confirmed the next edition for 2018.

Network president Matteo Gentili said: "It's Tissue has proved again to be a great success.

"It is a wonderful celebration and exploration of tissue technology and a strong signal of the health of the Italian sector."

The 12 companies forming the Tissue Italy network are: A.Celli, Elettric 80, Fabio Perini, Futura, Gambini, MTC, Omet, PCMC, Pulsar, Recard, TMC and Toscotec.

### Multipack sells Pharma-Cosmetic branch to focus on tissue

Multipack has realigned its business to focus on the international tissue market after it announced the sale of its Pharma-Cosmetic products division.

Located in Casalecchio di Reno, Bologna, the company has over 35 years of experience in packaging equipment and specialises in primary and secondary packaging systems for tissue, pharmaceuticals, cosmetics and foodstuffs.

The sale of its pharmaceutical and cosmetic products means it can concentrate its activities on tissue.

Aldo Stupazzoni, chairman of Multipack, said: "This transaction further enhances the commitment of Multipack in the tissue industries; we have also almost finished developing other innovative wrapping systems for rolls of toilet paper and kitchen towels."

Davide Angelini, general manager of the company, added: "Our business asset will not change and we will continue to produce packaging solutions for diverse industrial sectors, keep developing innovative solutions to generate added value and to cut costs for our customers.

"This operation strengthens our focus on tissue where the new TEKNA ROLLEvolution is nearly ready and set to be a milestone in the roll wrapping machines market." He added that many other products were under development and will be launched in 2016.

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## INDONESIA

### APP and APRIL become PEFC-certified in Indonesia

Indonesia's top two pulp and paper producers Asia Pulp & Paper (APP) and Asia Pacific Resources International (APRIL) have become certified to PEFC and its local partner, the Indonesian Forestry Certification Cooperation (IFCC).

Over the past few years, the two paper giants have received heavy criticism from environmental groups for allegedly harvesting the country's natural forests to manufacture products.

Ben Gunneberg, chief executive of PEFC International, said: "The certification affords APP and APRIL's products access to the PEFC label, providing a clear message to consumers worldwide that their products come from verified sustainable sources.

"This achievement highlights the progress that local stakeholders have made in advancing sustainable forest management in the country."

Certification was awarded to more than 600,000 hectares of forests following third-party audits to ensure their management practices are in line with the PEFC-endorsed IFCC standard requirements. The certificates are now valid for three years.

APP and APRIL have previously been PEFC-certified, however, certification was so far limited to Chain of Custody certification,



meaning they imported PEFC-certified material from abroad to produce PEFC-certified products.

Following the endorsement of IFCC, both APP and APRIL are now able to certify their forest management practices and demonstrate that they are sustainable."

## LITHUANIA

### Lithuania's Grigiskes closes two tissue PMs at Vilnius mill as new PM 6 gains speed

Grigiskes has shut down the two oldest machines at its Vilnius tissue mill in Lithuania as planned.

The PMs will be dismantled and sold, either for spare parts or for operation elsewhere, a company spokesperson said, adding that the company is currently in negotiations with several buyers.

The units, PMs 2 and 3, were installed in the 1960s and have a capacity of some 4,000tpy of tissue each. They were closed in the middle of May and have been replaced by the recently installed Toscotec-supplied 110tpd PM6.

The spokesperson said that PM6 is running fine. "Of course we still need some time to reach the stable quality and speed targets, but all in all we are firmly moving in the right direction," she said, adding that sales of the PM6 products were already underway.

The Vilnius mill also houses the 17,000tpy tissue PM5, installed in 2007.

(News from RISI [www.risiinfo.com](http://www.risiinfo.com))

## UK

### Northwood boosts AfH presence in the UK with acquisition

Northwood Paper Sales has targeted growth in the UK's Away from Home (AfH) sector after it acquired the issued share capital of Disposables UK.

Disposables UK operates from Meltham near Huddersfield and manufactures and distributes branded and unbranded paper disposables and dispensers as well as cleaning and hygiene products for the AfH market in the UK and abroad.

Managing director of the 85-staffed company David Burkill said: "This is

a very exciting and positive move for Disposables UK and is the next stage in our development.

"In Northwood we have found a buyer that suits our business, with whom we already have a strong relationship and who are a family-run business with a similar approach. It will benefit our business and our customers."

Paul Fecher, chairman of Northwood, added: "The activities of Disposables UK and Northwood Hygiene Products are complementary to each other and enhance the coverage of the whole AfH product range available to the market from the new unified supply source.

"With the well-known range of Bay West, Optimum Professional, and Optimum ProWipers joining Leonardo, Essentials, Whisper and Perform we have system as well as commodity solutions and the right products available for the full requirements of the hygiene sector.

"We are pleased to welcome David Burkill and Paul Halliwell, the Meltham management team and all the staff of Disposables UK Ltd into our family of companies, as we continue to grow our businesses in the UK Away from Home sector."

Northwood employs 580 staff and has converting factories in Penygroes, Telford and Meltham and tissue mills in Disley and Lancaster, as well as a joint venture integrated consumer tissue mill and converting plant in Bridgend.

## AMERICA

### Tissue capacity additions keep coming, while demand stays steady at 1-2%/yr

US tissue paper capacity entered a fifth-year of significant growth in 2015 that was not outpacing steady demand expansion and not taking the air of producers' pricing.

That said, the last official tissue product price increase was in mid-2011 and since then, nine different companies started up new or converted machines that added 500,000 tonnes of capacity to the North American tissue market.

Further, two more additional companies plan new machine capacity this year.

On pricing last year, First Quality Tissue, North America's eighth-largest producer announced a consumer increase that turned out being a solo run, and this August Clearwater Paper, the second largest private label producer behind Georgia-Pacific (GP), was out with a consumer products increase.

Producers slightly increased pricing since mid-2013 by reducing sheet counts. Kimberly-Clark (K-C) reported a 1% rise in consumer tissue pricing for 2014 vs 2013 and a 2% increase for 2013 vs 2012.

The key issue in the segment continued to be the pace of capacity additions vs demand growth that has averaged 1.8%/yr since 1993 and has only declined twice sequentially in the last 15 years.

Also, there remained ongoing big brand vs private label face-offs for shelf space in the largest US grocery and retail company stores.

That heated competition turned producers toward making more ultra and premium product than ever before and starting up through-air-dried (TAD) machines to do so.

Five of the last nine PMs started up were TADs. One company, Wausau Paper, even added a new tissue paper machine with Atmos technology in Harrodsburg, KY, that makes high-quality paper products for the Away-from-Home market segment.

In North America, about two-thirds (68%) of the 9.8 million-tonne capacity tissue paper market demand goes for consumer products, which are led in volume by bathroom tissue and then kitchen towels.

The other third of the capacity (32%) is for AfH products, which are primarily supplied by dispensers in bathrooms in offices, schools, stores, hotels, and restaurants.

While bathroom tissue is the No. 1 volume product in the consumer segment, towels are the top AfH seller.

Overall, the consumer products continue to grow faster than AfH products in the US marketplace.

Tissue papers include sanitary grades such as toilet, toweling, facial, napkin, sanitary napkins, wipes, and special sanitary papers.

Along with bathroom tissue and towels, other consumer products include Kleenex and facial tissue, and meal napkins.

North American production totalled 9.14 million tonnes of tissue paper in 2014 and capacity was 9.67 million tonnes for a 94% operating rate.

The market divides up into two product types, based on production method: the brands and private label.

The big brand and largest producers are GP, Procter & Gamble (P&G), and K-C. P&G is largest in the consumer segment led by its Charmin brand.

G-P is the largest in private label with its connection to Costco and its Kirkland private label product, and is big in brand business with Great Northern as well and the largest in capacity overall. In private label, Clearwater is the second behind G-P and First Quality continues



# NipcoFlex T shoe press

## Innovation meets energy savings.

The NipcoFlex T shoe press is a proven innovation that generates significant benefits for tissue production:

- Up to 5% higher dryness after press
- Up to 20% higher production capacity
- Up to 20% savings in Yankee steam and hood gas consumption
- 30% less coating chemistry needed
- Return on investment of less than three years (depending on local energy costs)

To date, 18 tissue producers worldwide have been convinced by this technology. See how you too can profit from NipcoFlex T: [www.voith.com/nipcoflex-t](http://www.voith.com/nipcoflex-t)



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to grow in the segment as does Kruger. The fourth largest producer in North America, Cascades is well-sized in consumer and AfH, and North America's largest parent roll supplier. Main private label end users include Walmart and Costco.

The tissue paper is made by conventional machines (about 65-70% of North American capacity) and TADs (30-35%). The TADs cost more to operate and turn out a softer product. Conventional machines run on a lower cost, lower-quality position.

The brand producers – P&G, K-C, and GP – compete strongly with TAD products. But other smaller players – Clearwater, First Quality, and Kruger – started up four new TADs in the last four years to compete more strongly in the ultra and premium categories.

Of the last 10 PMs started up in North America, six were TADs.

### Supply/Demand Balance

Even with the capacity growth, the market remained balanced in terms of supply and demand in North America, contacts said. From 2011 to 2014, North America's apparent consumption increased 443,000 tonnes, with imports increasing 142,000 tonnes and production up by 341,000 tonnes. Capacity at the same time rose by 306,000 tonnes. However, another 200,000 tonnes of capacity is in play for 2015, from the 2014 total.

For late 2015 and 2016, new capacity is to startup by yearend 2015 by von Drehle at Natchez, MS, and First Quality plans two new machines, one each in 2015 and 2016, and newcomer St. Croix Tissue plans two new PMs as well, one each in 2015 and 2016.

Also, Kruger continues to consider adding another US machines, as part of its connection with the "White Cloud" business at Walmart.

### Chinese ownership first

The St. Croix Tissue company becomes the first Chinese-owned company to make tissue paper in the USA.

The firm started on buying Domtar's Woodland Pulp mill in Baileyville and plans to product parent rolls on two machines in two years.

Pulp from the Woodland mill will be integrated to the two conventional parent roll machines at Baileyville.

Also, at the end of 2014, Cascades added converting capacity in the US South and converted a former Boise Paper uncoated freesheet paper machine to tissue paper products in St. Helens, OR.

Some of the tonnage from St. Helens is set for Cascades' converting plant in Kingman, AZ, which has been expanded. Imports represent 10% of North American demand, and increased to 1.3 million

tonnes in 2014, which exceeded the totals from 2011 to 2013 of 1.1 million to 1.2 million tonnes of imports.

Asia Pulp & Paper (APP) has partners or affiliates in Solaris Paper in Los Angeles and Mercury Paper in Virginia that sell tissue products made of APP paper.

As new capacity entered the market in the last five years, K-C shut a large mill in the Pacific Northwest and a machine in Pennsylvania and Kruger shut machines in British Columbia.

Since 2008, nine of the largest 10 North American tissue paper producers increased their capacity, with K-C being the only one to reduce capacity. K-C's reduction was by 176,000 tonnes from shutting down a mill in Pacific Northwest and a machine in Pennsylvania. K-C's reduction was by 176,000 tonnes from shutting down a mill in Pacific Northwest and a machine in Pennsylvania.

The largest capacity-growers were Clearwater, which started up a TAD in Shelby, NC, in 2013 and acquired Cellu Tissue.

This increased Clearwater's capacity by 297,000 tonnes.

First Quality increased capacity by 165,000 tonnes by starting up several new TADs in Anderson, SC. Also, Clearwater sold its specialty papers/tissue business to Dunn Paper, and GP added 96,000 tonnes of new capacity from 2008-2014, possibly from its special proprietary work on two machines at its Crossett, AR, and Port Hudson, LA, mills. That technology was called eTAD and was intended to produce paper at a lower cost yet at a higher quality level.

### Pricing remains steady

With the capacity growth, pricing has mostly held in the last year with little change, other than the move by producers in second quarter 2013 to reduce sheet counts. K-C reported the 1% price gain in 2014 as well as a 2% increase in 2013.

Producers in 2013 including K-C and Clearwater reduced sheet counts on their tissue packages, thus gaining a higher cost per package, company executives said. This sheet count reduction worked as an unofficial price increase. Analysts varied on how much the sheet count reduction equalled in terms of an increase and it was unclear how many producers reduced their sheet counts in 2013.

Also, along with the consumer increase by First Quality in 2014, AfH producers announced an increase of up to 10% for the summer of 2014. That increase was implemented to some degree and with some companies continuing to lag in the increase into 2015, executives said.

A key benchmark for tissue pricing is the price of market pulp. Producers such as K-C and P&G do not run pulp operations, as does GP, so they rely on

buying an open market pulp mix of both bleached softwood as well as bleached eucalyptus for making their tissue paper. The benchmark northern bleached softwood kraft (NBSK) increased 17.5% from 2012 to 2014. The 2014 NBSK average was \$1,025/tonne on a list price basis in North America. By mid-2015, that price was down 3.7% to average \$987, according to PPI Pulp & Paper Week.

Market outlook. The major issues for 2015 and 2016 continue to focus on new capacity and how it balances with demand growth. And the ongoing competition in stores for shelf space between big brand and private label tissue and towels.

Promotional spend was expected to continue to be a benefit for the largest producers to further help their order books. Majors such as P&G counted on heavy advertising spend in 2014.

Also, innovation remained very important, and touched various parts of the segment. K-C, citing concern about reduced quality of deinked recovered paper, launched GreenHarvest, a tissue paper brand with 20% alternative pulp made from bamboo and straw pulp.

K-C also launched a tubeless bathroom tissue product and P&G was said to be testing one for its big brand Charmin. GP pushed ahead with its EasyNap one-towel-at-a-time dispenser for the AfH market and Wausau Paper also launched a large-volume dispenser.

(News from RISI [www.risiinfo.com](http://www.risiinfo.com))

## MEXICO

### Fábricas de Papel Potosí boosts capacity

Fábricas de Papel Potosí has invested in a new TM complete with 12-ft steel Yankee and latest-generation hoods.

Supplied by A.Celli Paper, the new 2,800-mm tissue machine is equipped with a 12-ft steel Yankee, which was recently shipped to San Luis Potosí.

Following the investment, Fábricas de Papel Potosí aims to make a quality leap, attaining major and ambitious production milestones in a quest to conquer its market.

The machine has a working speed of 1,500m/min and a production capacity of 80tpd.

It also comes with latest-generation hoods specially designed by A.Celli's technical staff to enhance technical performance.

## Greece – primarily local T&T market with signs of contraction



Bill Burns

Senior consultant,  
Fisher International

**A**mong Western Europe's Towel and Tissue (T&T) producing countries, Greece is a small player with a manufacturing T&T capacity base significantly lower than the more industrial and populous countries of Germany, France, Italy, Spain and the United Kingdom.

Stepping back and looking at Western European Pulp and Paper in total, T&T occupies about 9% of the market (Figure 1). This is significantly

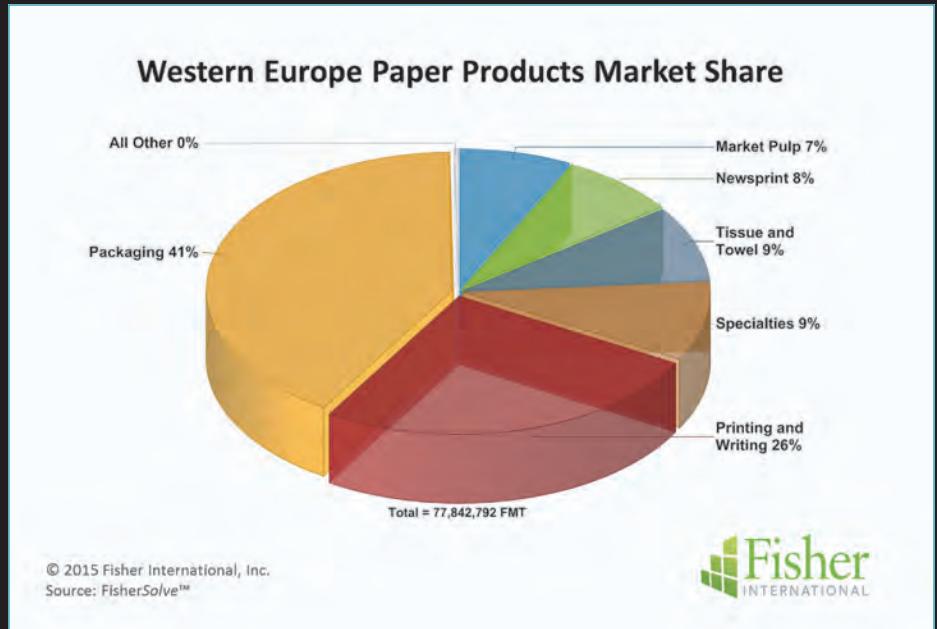


Figure 1

### Greece T&T Mill Locations



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Source: FisherSolve™

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less than Packaging and Printing/Writing grades which represent 67% of the market combined, but on a par with the remaining major grades. Greece holds a very small share of the Western European T&T market. But its market share of 2% is more or less consistent with countries with comparable populations such as Belgium or Portugal (Figure 2).

Slicing the share data deeper finds that Greece is not only on the low end of capacity but the average mill production is also quite low (Figure 3). Three major grades make up the portfolio of paper production in Greece with T&T representing almost 30% of the total (figure 4).

The future of T&T in Greece is somewhat uncertain. Since 2007, the country experienced a modest expansion in 2010 but has been contracting since (Figure 5). With an absence of announced expansions or further contractions, it appears the capacity will level out at a rate well off the 2007 benchmark year.

Cost and productivity related factors may provide an insight to the direction Greece will follow. Fibre is a major cost element for T&T production. Western Europe has a mix of recycled and market pulp with recycled representing about 30% of the mix. There are some integrated operations but mostly the market pulps are dominating (Figure 6). Fibre mix in Greece is almost all market pulp with a small 10% of the mix being lower cost recycled (Figure 7).

Productivity tends to be driven by speed and trim of the paper machines. Compared to other Western European countries, the average speed of Greek machines is on the low end (Figure 8). Average trim is comparable to some countries and narrower than the larger producer countries. Greece's position on a cumulative cost curve is among the highest cost countries (Figure 9).

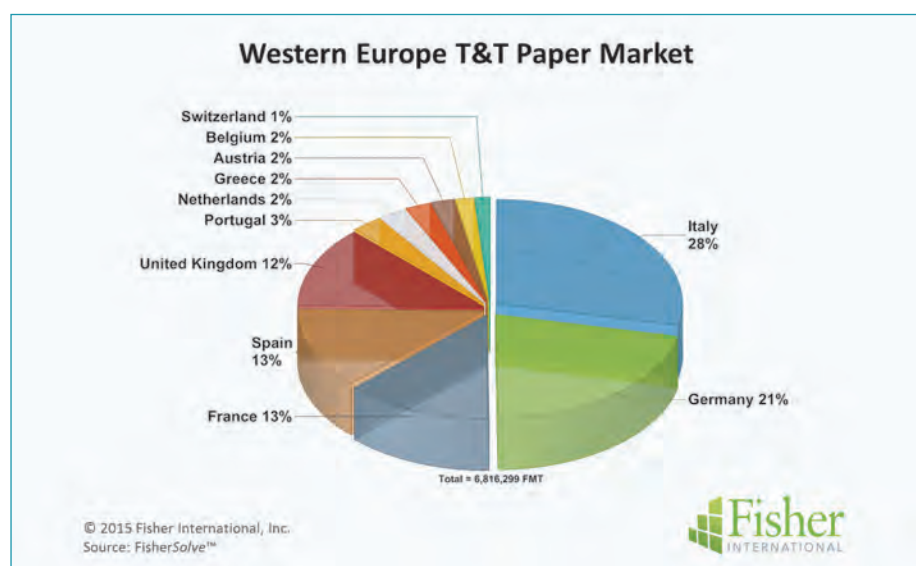


Figure 2

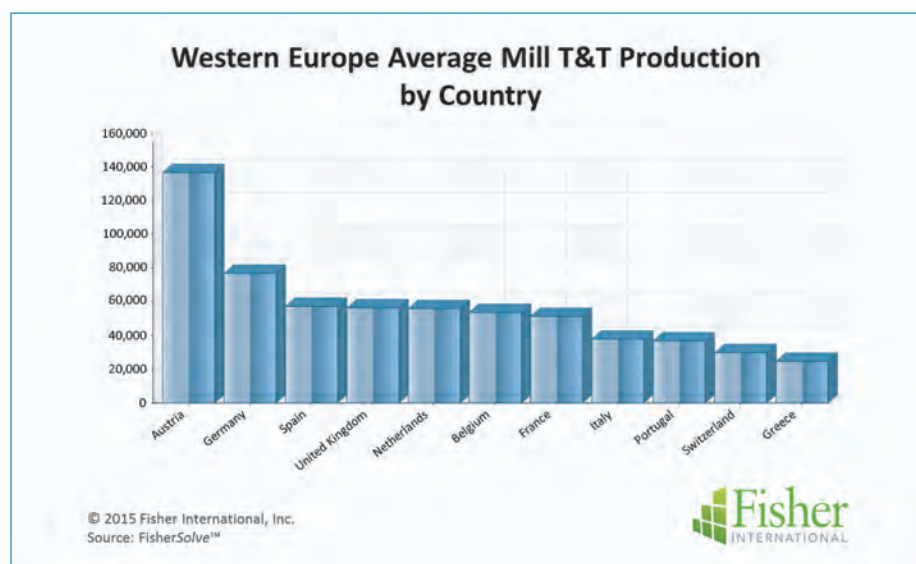


Figure 3

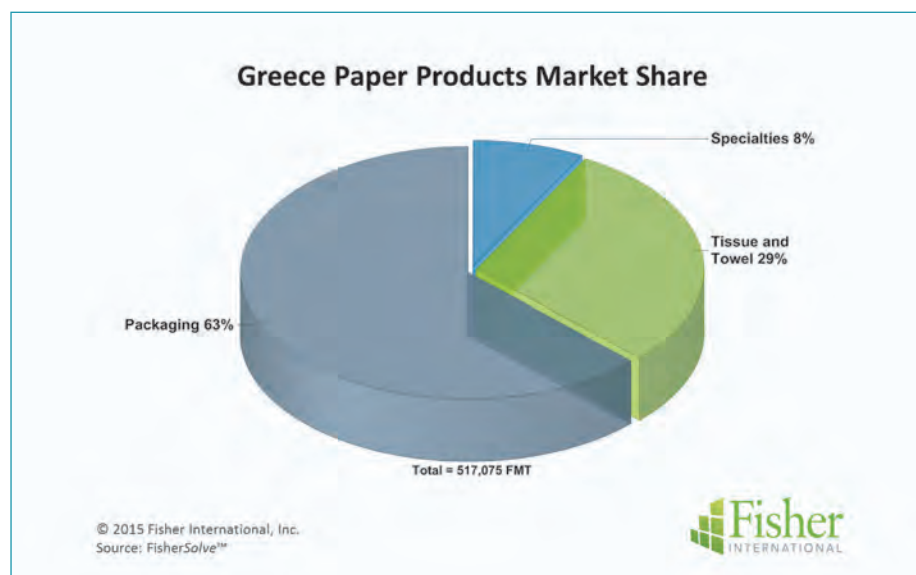


Figure 4

## Extend your Yankee's life cycle

### ANDRITZ Yankee service



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the customer through the complete Yankee life cycle. The ANDRITZ life cycle management package helps to improve your machine's efficiency and provides reliable performance by your Yankee. We support you not only with upgrades and replacements, but offer

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## In numbers: Greece

Market share held  
in Western Europe's  
T&T market

2%

2010

First year since  
2007 that  
the country  
experienced  
a modest  
expansion

Recycled pulp in  
Western Europe's  
mixed recycled and  
market pulp sector

30%

Greece T&T recycled  
fibre usage

9%

T&T production sites  
across the country

6

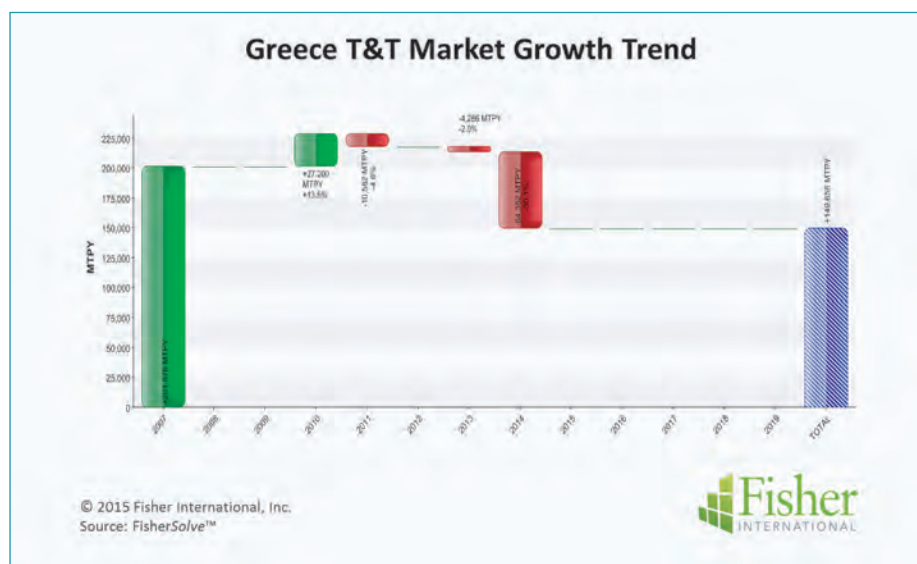


Figure 5

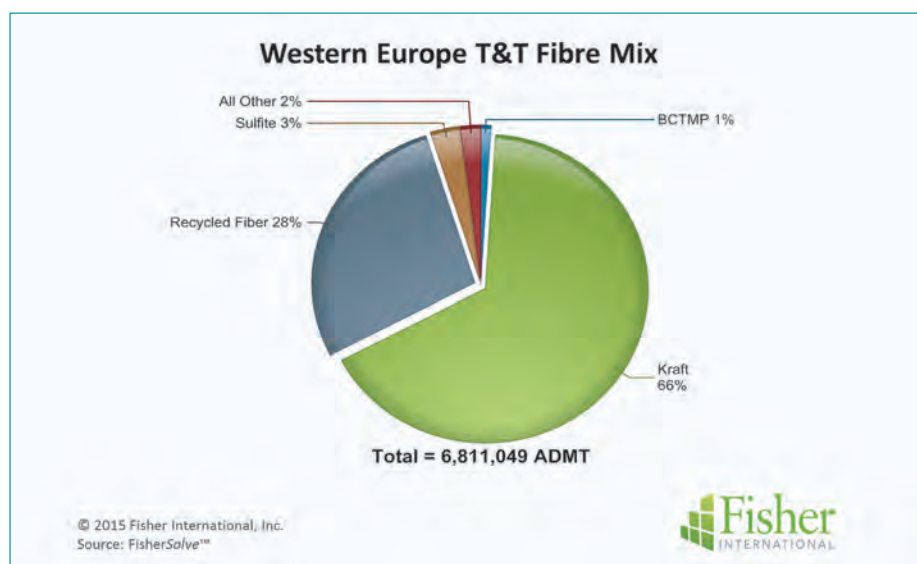


Figure 6

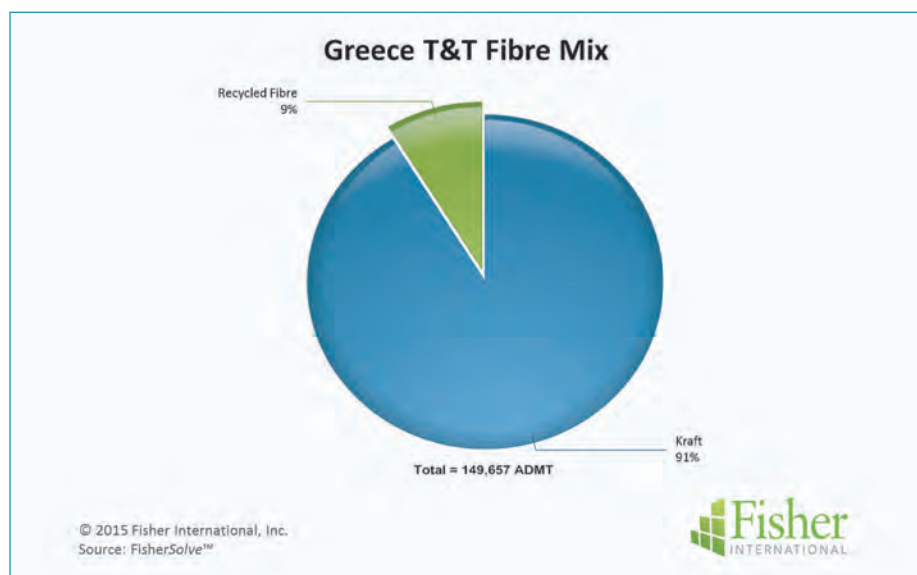


Figure 7

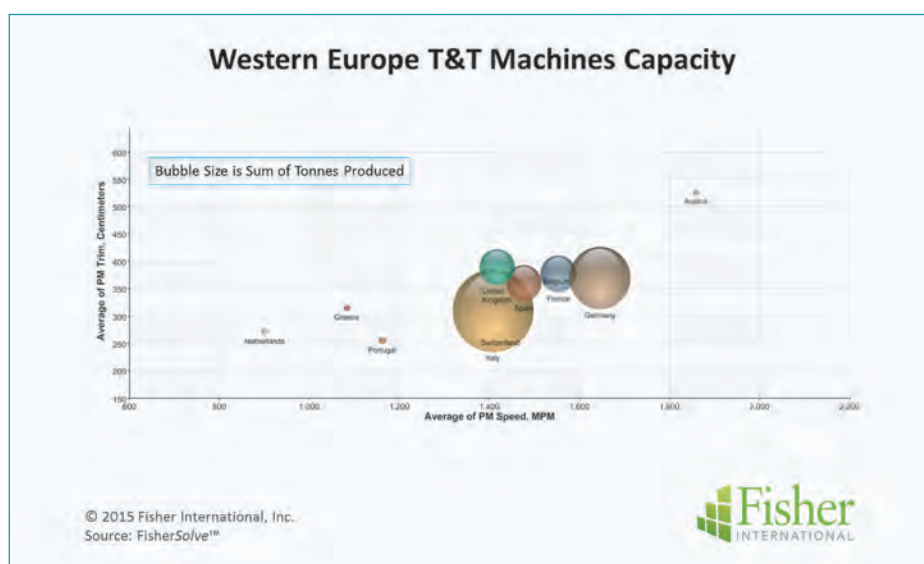
By Fisher International's **Bill Burns**

Figure 8

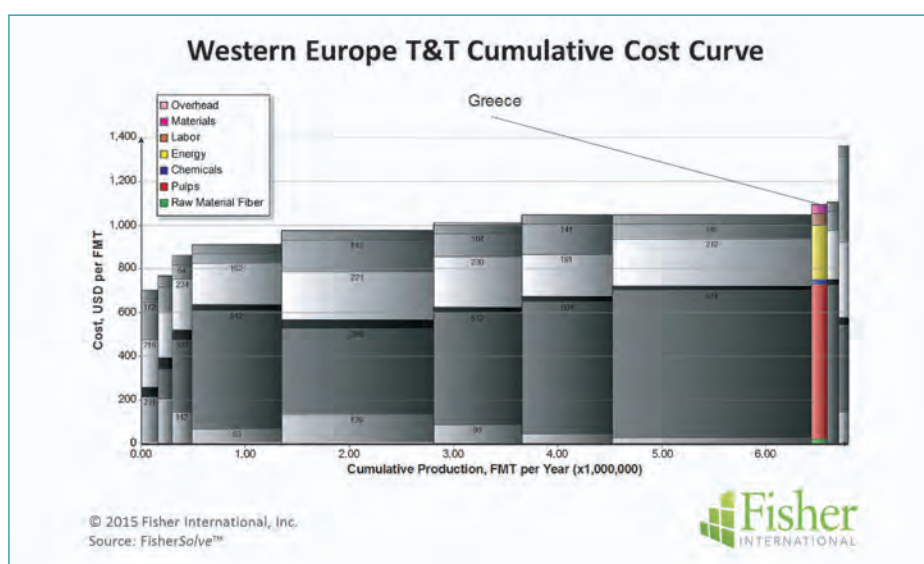


Figure 9

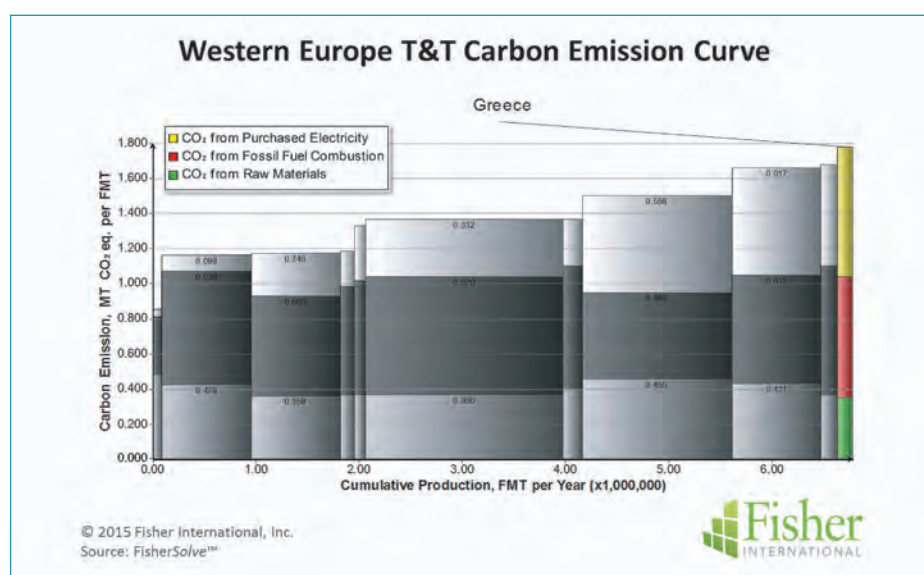


Figure 10

Key cost differentiators appear to be fibre and energy. The heavy reliance on market pulp explains the fibre element while energy is a result of fuel pricing. Greece appears to be competitive vis-à-vis other countries in terms of usage but at a disadvantage in fuel prices.

Future cost competitiveness may also be impacted if or when carbon mitigation becomes more of a cost issue. Greece's emissions appear to be the highest among the eleven countries considered in this comparison group (Figure 10).

The source for market data and analysis in this article is FisherSolve™. Data tables behind Figures 1 - 10 can be obtained from Fisher International. E-mail requests to [info@fisheri.com](mailto:info@fisheri.com).

#### About Fisher International, Inc.

Fisher International has supported the pulp and paper industry for over 25 years with business intelligence and management consulting. Fisher International's powerful proprietary databases, analysis tools, 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 database and analysis tool. Complete and accurate, FisherSolve is unique in describing the assets and operations of every mill in the world (making 50 TPD or more), modeling the mass-energy balance of each, analyzing their production costs, predicting their economic viability, and providing a wealth of information necessary for strategic planning and implementation. FisherSolve is a product of Fisher International, Inc. For more information visit: [www.fisheri.com](http://www.fisheri.com) or email [info@fisheri.com](mailto:info@fisheri.com) USA: +1-203-854-5390



# Reduced purchasing power shapes consumer tissue preferences in Greece

Greece boasts one of the highest tissue per capita consumption in Western Europe and many product categories are considered to be a household necessity. It is not surprising then that on the whole sales growth in retail consumer tissue maintained a positive trajectory in 2014, despite economic and financial uncertainties that plague the country. Furthermore, in 2013 and 2014, the country saw a double-digit rise in the number of incoming tourists, who provided much needed support for the Greek businesses and added to the demand for tissue products.

However, while still positive, the pace of growth started to slow down in 2014, compared to 2013, especially in value terms, as significant discounting practices and other cost-saving strategies translated into reduced industry revenues. These tendencies are projected to continue, with retail tissue sales set to achieve only a marginal increase over 2014-2019, at well under 1% CAGR in constant US\$ value.

## Coping with progressively shrinking wallets

Promotional activities and commodity status have been the key factors behind relative resilience of consumer tissue to the recession. However, with most product types not witnessing major losses in volume terms in retail, consumers have to manage on a much tighter budget in view of reduced household incomes.

Reaching US\$212 million in retail sales in 2014, toilet paper is the largest category within retail tissue in Greece, with a nearly universal household penetration in the country.

The category was also the best performing one in retail, registering double-digit increases in volume and value terms in 2013 and 2014. Interestingly, however, a spike in demand was partly due to an increase in the number of small-

scale business and horeca operators getting their supplies from the retail channel. The recession forced many entrepreneurs to re-think their supply chain strategies and to avoid stockpiling large quantities of tissue products purchased from wholesalers. Decline in average selling prices in retail amidst significant promotional activities further encouraged the migration of away-from-home customers from wholesale to retail.

Although in value terms toilet paper did record a solid positive growth, the pace of growth was barely keeping pace with volume in 2014, as drastic promotions and discounts have become the key feature of retail.

Looking for best deals, many consumers also opted for larger packages and larger paper rolls. In kitchen towels, jumbo rolls originally designed for away-from-home use have



Svetlana Uduslivaia

Euromonitor International's  
head of tissue & hygiene industry

Tabel 1: Retail Tissue, Value and Volume Year-on-Year % growth, 2009-2019



Table 1: Value is expressed in US\$, constant value, 2014 fixed exchange rate

Source: Euromonitor International

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By Euromonitor International's Svetlana Uduslivaia

Table 2: Kitchen Towels, Year-On-Year % Value Growth by Company

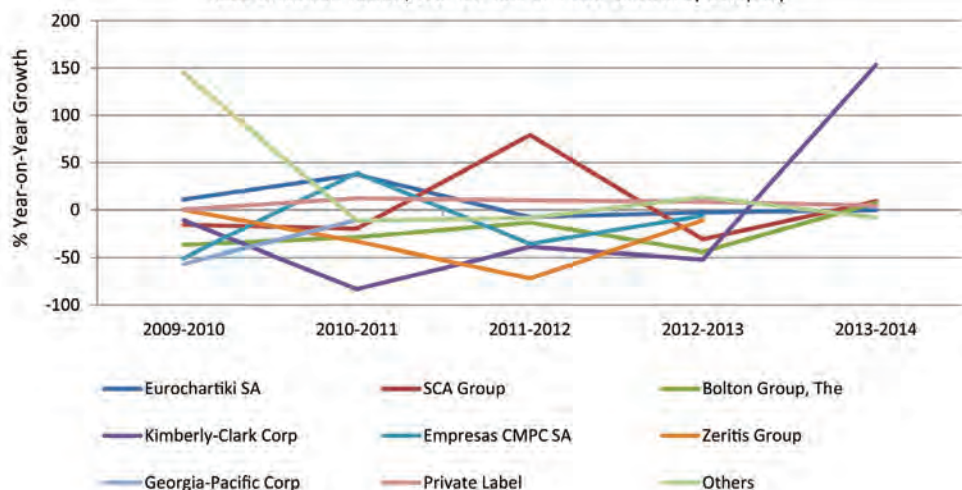


Table 2: Value is expressed in US\$, constant value, 2014 fixed exchange rate

Source: Euromonitor International

become popular in retail, since they were perceived by many consumers as offering the best combination of quality, quantity and price. Initially available in private label only, jumbo roll format saw a steady increase in the number of branded products marketed by the leading tissue manufacturers competing with lower priced private label.

### Private label locked in the battle with leading brands over share of consumer spending

Private label often becomes a product of choice for consumers looking for lower prices and significant investments by leading retailers into private label products led to improvements in quality and product ranges offered by private label tissue products. These tendencies resulted in substantial gains experienced by private label tissue products in a number of markets, such as for instance the US and Germany.

In Greece, private label also captured an increased share of the overall sales of retail tissue over 2009-2014. However, in 2014 private label progress was challenged across many product categories. In kitchen towels, for instance, a number of brands experienced stronger growth in sales vis-à-vis private label as aggressive price promotions employed by manufacturers of branded products

drew consumers towards their products. Mirroring the trend, the leading private label Lidl, marketed by hard discounter Lidl Hellas & Co, saw a significant slowdown in sales growth in 2014, compared to 2013, as it fought for a share of consumer spending with highly discounted brands.

### Future fraught with challenges for industry revenue growth

Retail tissue in Greece is expected to record only a marginal value growth over 2014-2019, although is projected to see 5% CAGR increase in volume. Price sensitivity will continue to shape up consumer preferences, likely encouraging further widespread price discounting.

In the conditions of austerity measures and economic hardships in Greece, coupled with expected slowdown in the number of incoming tourists to boost the demand, manufacturers' strategy that focuses on lower prices to encourage purchases and secure at least some degree of brand loyalty is not surprising. The strategy, however, is a double-edge sword and can create problems for revenue growth in the long term, as consumers become accustomed to bargain shopping and expect low prices on everyday items even with economic recovery.

Looking at best practices from markets, brands and retailers that

weathered the recessionary and post-recessionary times, a combination of strategies can help tissue product manufacturers and retailers in Greece to secure not only short-term growth but also ensure healthier recovery in the long term. These strategies include re-focusing the attention from "value" only to "value for money", product development to meet diverse consumer needs, and packaging design. The latter can be an important aspect of brand strategy to grow brand loyalty without resorting to significant price discounting. Large packages and bulk buying can offer a good value and are cost-efficient for consumers, as demonstrated by the increased popularity of jumbo rolls in kitchen towels in Greece in 2014.

However, bulk buying comes with upfront costs that not everyone can afford. With increasingly restricted weekly budgets and high unemployment rates, many more Greeks find themselves in a situation where they are only able to afford a small quantity of tissue at a time to meet their immediate needs. The strategy to offer diverse packaging options has been successfully applied by many tissue and hygiene manufacturers across developed and developing markets to encourage purchases and secure long-term brand loyalty. It is likely to be successful in Greece as well, given current state of the marketplace and future projected demand for consumer tissue.

# How Maxi is surviving Greece's economic tragedy

**Bankruptcies and closures saw an end to production at five paper machines in recent years, but with Greece still seeing the tissue market grow by 2.5%, just one new installation took place – at Maxi. TWM spoke to mill manager Michael Vantsis**

Located in Katerini, a town in Central Macedonia, Greece, Maxi entered the Greek and the European tissue market in 1988. It is now one of the biggest Greek tissue businesses with a substantial presence across south-eastern Europe.

Maxi produces private label, consumer and AfH products: some 45% of its annual production of 30,000tpy is toilet paper, kitchen towel makes up 38%, napkins 14% and the remaining 4% is other products. Some 20% of its jumbo reels and finished consumer products are exported to countries including Bulgaria, Albania, Macedonia (FYROM), Serbia, Romania and Kosovo. The Maxi group also produces detergents and trades a range of products for domestic use that covers all daily house needs.

Following Greece's unfavourable financial situation, Maxi has survived by adding a new pulp production factory and by improving its efforts of production, processing,

standardisation and paper availability. The significant investment made at the Maxi Paper mill helps to ensure the viability of the company. In a period of dismissals and large profit losses for all enterprises, the Maxi group has created 43 new work positions and has great expectations for the company's future.

The Greek economic crisis is an opportunity for the business, according to mill manager Michael Vantsis. "We hope to reclaim the possibilities that are given to us as much as we can in order to make Maxi not only the biggest Greek paper industry player but also one of the biggest in Europe."

2009 was a landmark for the company: in response to customer demand and the expansion of its merchandising network, Maxi also decided to expand its production, and constructed an ultramodern production unit for paper pulp. In 2010, construction on the 100-staffed Maxi Paper mill began and was completed in the beginnings 2011.

O

Helen Morris



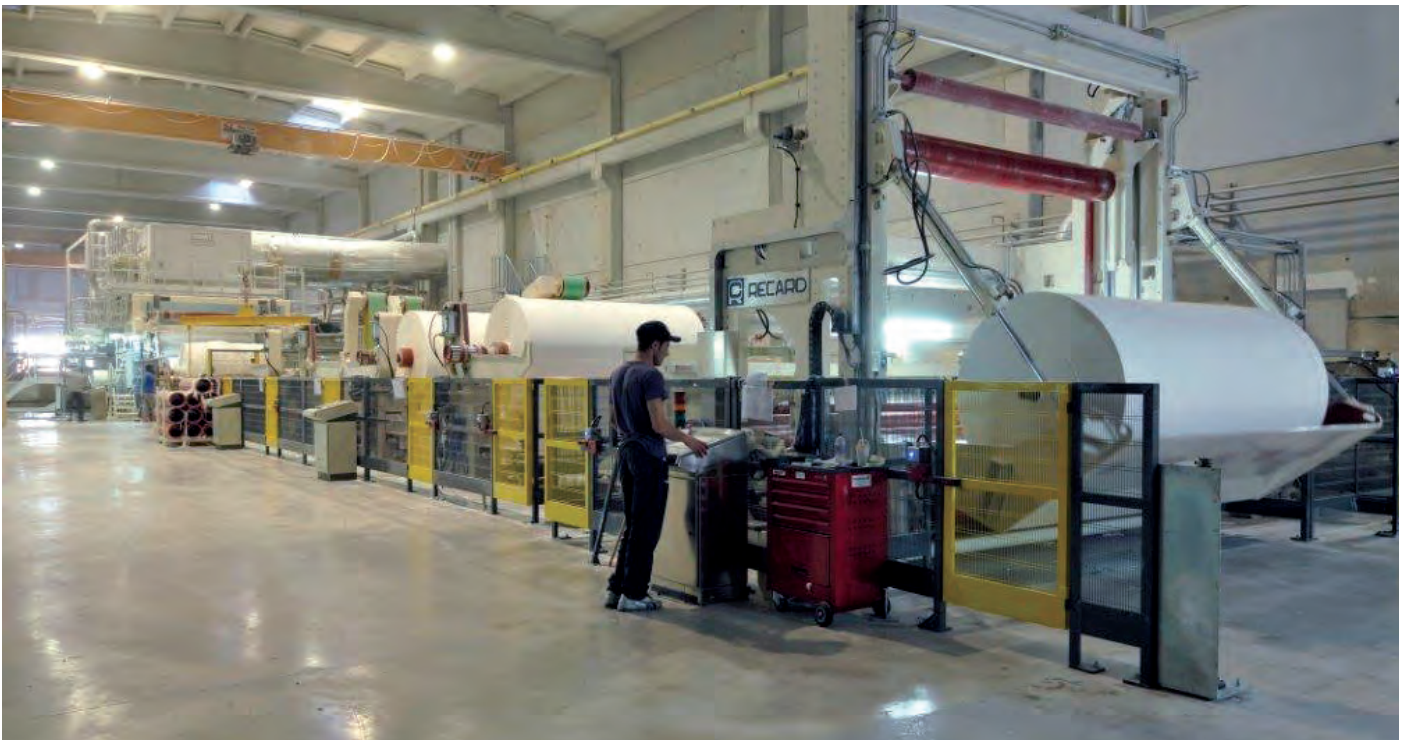
Editor,  
Tissue World magazine

**'Crucially, there is very much under-capacity in the Greek tissue market. It seems that there is enough space for several new paper machines.'**



In response to customer demand, Maxi expanded its production facilities and constructed "an ultramodern production unit for paper pulp".





"We are planning to invest further in paper machines and converting lines as we are not currently able to cover market demands."

## How is the Greek crisis impacting your business and the Greek tissue industry as a whole?

**Vantsis:** "Up to this moment it seems that there is not any important impact. Some tissue producers went bankrupt or stopped production during the past few years: Thrace paper mill in 2012 (three narrow paper machines), Viochartiki in 2015 (one narrow PM), also SCA shut down the former Georgia Pacific mill in Patras. So in total, five paper machines were stopped and only one new machine was installed, which was here at Maxi.

"In addition to this, larger tissue producer Athens paper mill, a month ago after a fire in the roof, part of the roof of the building of the PM8 and PM9 (both wide) collapsed and the production was stopped. I have no information about the damages or if they are going to restart production soon."

## Is there overcapacity in the Greek tissue market? How are you dealing with this if so?

**Vantsis:** "Crucially, there is very much undercapacity in the Greek tissue market. It seems that there is enough space for several new paper machines."

## What new geographical areas are you looking to export into?

**Vantsis:** "We are looking to export our jumbo reels and finished consumer products more and more. We are already exporting to Bulgaria, Albania, FYROM, Serbia, Romania, Kosovo. We have already started exporting to Cyprus."

## Are you planning on investing further at the plant?

**Vantsis:** "We have one paper machine that was supplied by Recard. For converting, we have one consumer products rewinder, one industrial rolls rewinder, napkins lines, three folded handtowels and facial tissue lines as well as three tissue tablecloth lines. We are planning to invest further in paper machines and converting lines as we are not currently able to cover market demands. We are also planning to install a new fast and flexible rewinder line and then a new paper machine."

## What are the main opportunities for you in the Greek tissue market? What are you doing to take advantage of these?

**Vantsis:** "The main opportunity is to cover the empty space in tissue papermaking."

## What are the main challenges?

**Vantsis:** "The main challenge is the general economic conditions in Greece."

## Are you seeing an increase in demand for tissue products in Greece? How much growth year-on-year are you seeing and do you expect this to continue?

**Vantsis:** "It seems that there is a slight increase of around 2.5% in the Greek tissue market. We are expecting that this will continue to grow as we expect the demand for tissue will continue to grow."

"We expect that the AFH tissue market (mainly horeca) will grow the quickest because we expect tourism to Greece to continue to increase."

## Do you believe tissue is recession-proof?

**Vantsis:** "Nothing is recession proof, however tissue seems to be more resistant than other sectors."





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# PIX Pulp indices 14.7.2015

## NBSK pulp Europe

The pulp market in Europe is slowing down in the seasonally quieter period of the year. In addition to the usual weakening interest to transact with pulp, the lower softwood pulp demand in China is affecting the BSKP markets elsewhere in the world. As a positive note, the emerging hopes, although still not finally approved, for a continued support for Greece and reduced fears for a Grexit, could start creating a more positive environment also to pulp markets. The fundamentals in BSK are supported by the continued shrinking of the price differential to BHK pulps which, when comparing the PIX index values, was down in early July to below 50 USD per tonne, about one-fourth of the average during Q3 last year.

Our PIX NBSK index in dollars moved this time again slightly down as it retreated by 0.13 USD/tonne, or by 0.02%, and closed at 851.16 USD/tonne. US dollar appreciated against the Euro by 0.7% (weekly average). Due to the weakening of the Euro against the US dollar, the benchmark value in euro headed north by 5.22 euro, or by 0.68%, and the PIX NBSK index value in euro ended at 770.98 EUR/tonne.

## BHK pulp Europe

In BHKP, the demand pull remained strong in June and it seemed to continue similarly when going into July. However, the long predicted negative impact of the new tonnage from the Guaiba mill might have only moved forward due to the difficulties in the start-up and several production stops during the first two months of the pulp line's history. Since early July the new line is back in production and is on track to reach the targeted volume of 500 000 tonnes this year.

The healthy hardwood pulp statistics seen for April are likely to have continued reasonably well also in May-June, based on the BHKP index development which has shown an increase of USD 10-15 per tonne each month during the second quarter. The new pulp statistics over June are expected to include again hardwood, too, and are therefore waited for with keen interest.

Our BHKP benchmark moved up this time by 0.65 USD/tonne, or by 0.08%, and closed at 800.25 USD/tonne. Last week, the value of Euro depreciated by 0.7% against the US dollar (weekly average). When converting the USD-value into the weakened Euro, the PIX BHKP index in Euro moved up by 5.60 euro, or by 0.78%, and closed at 724.86 EUR/tonne.

Lars Halén

Senior manager,  
FOEX Indexes

Timo Teräs

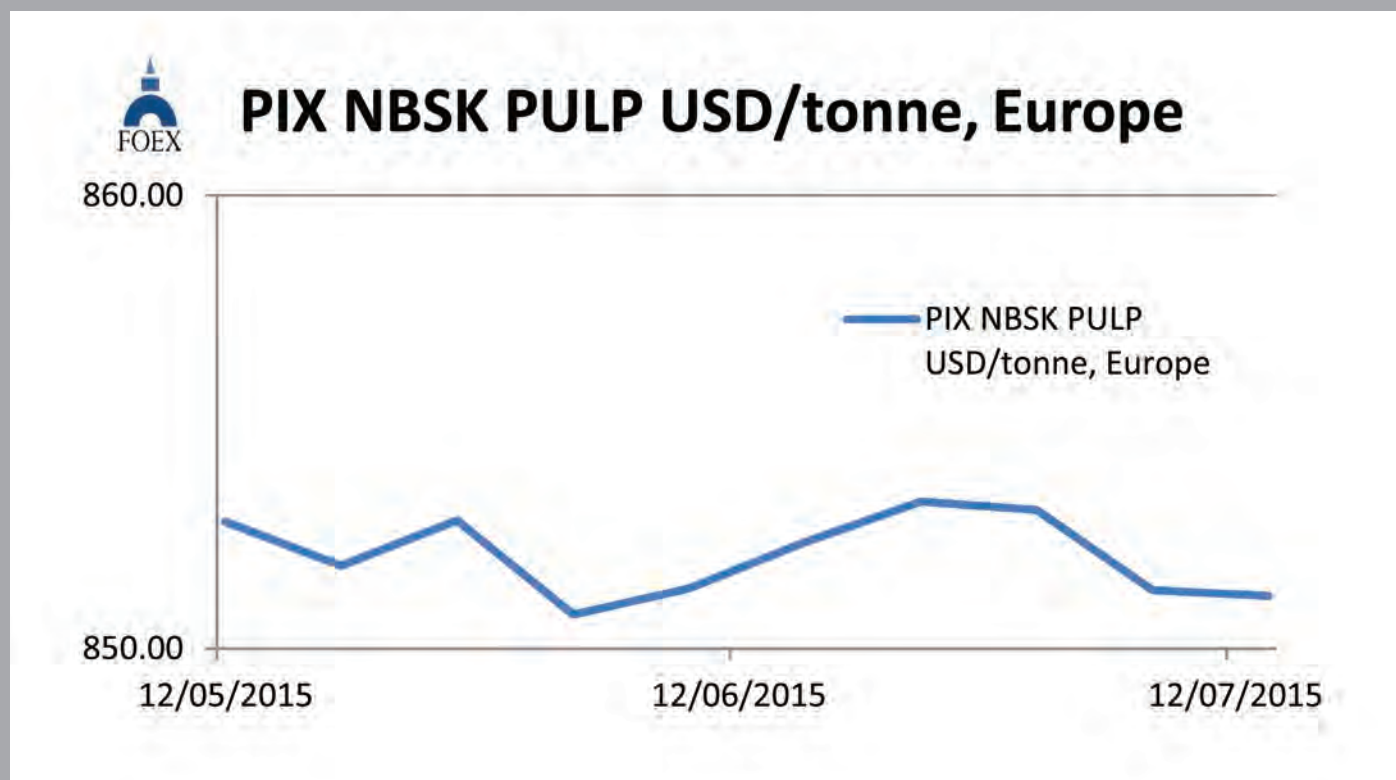
Managing director,  
FOEX Indexes

## Paper industry

The seasonally slow part of the year has started. During July-August, shipments of pulp and paper go down. In pulp, July is typically the weakest month as buyers in the paper industry segment do not want deliveries just prior to their holidays and downtime period. In paper and board, August is the slowest month. Consumers on holiday have their needs down, buyers in printing and related industries are not active and the peak demand for packaging by the large agricultural sector only comes in September. On the other hand, weather conditions are typically favourable for the production process and especially in pulp, but also in paper, Q3 production tonnage tends to exceed to shipment volumes. This means rising inventory levels at/near the producers.

Several paper price increase initiatives are on, mostly from July 1. Due to the seasonal factors mentioned above, this is not the ideal time for trying to raise prices. On the other hand, there are many factors supporting these paper industry initiatives. The main one is, obviously, the decreases in prices seen over the past 1-2 years and the insufficient profitability. The weakening of the Euro is another, as the price of pulp is up in Euro-terms. Recently, also the recovered paper prices have been on a rise. Finally, the countervailing duties and other efforts to protect the domestic producers help prices higher, at least in theory. In practice, the downside pressures move from one region to another. The level of success, if any, of the price increase efforts will start becoming visible in late July/early August.

Source: FOEX Indexes



FOEX Indexes Ltd produces audited and trade-mark registered PIX price indices for certain pulp, paper packaging board, recovered paper and wood based bioenergy/biomass grades. The PIX price indices serve the market in a number of ways. They function as independent market reference prices, showing the price trend of the products in question. FOEX sells the right to banks and financial institutions to use the PIX indices for commercial purposes, while RISI Inc. has the exclusive re-selling rights for subscriptions to the PIX data and market information. Please enquire for subscriptions at [foexsubs@risi.com](mailto:foexsubs@risi.com) or via the following link [www.foex.fi/subscribe/](http://www.foex.fi/subscribe/)

Tissue papers are produced either from virgin fibre, recovered fibre and various mixes of both, depending on the end product. High quality hygiene tissue products like medical tissue products, facial tissues, table napkins or other such household and sanitary products are often made exclusively or almost exclusively from virgin fibre pulp, whereas the share of recovered fibre typically increases in tissue products for a variety of end uses outside personal hygiene, such as kitchen towels or towels for garages or other such industrial production facilities etc. Providing PIX pulp price indices gives the paper producer and buyer insight in the price trends with a weekly frequency. PIX indices are used as market reference prices e.g.

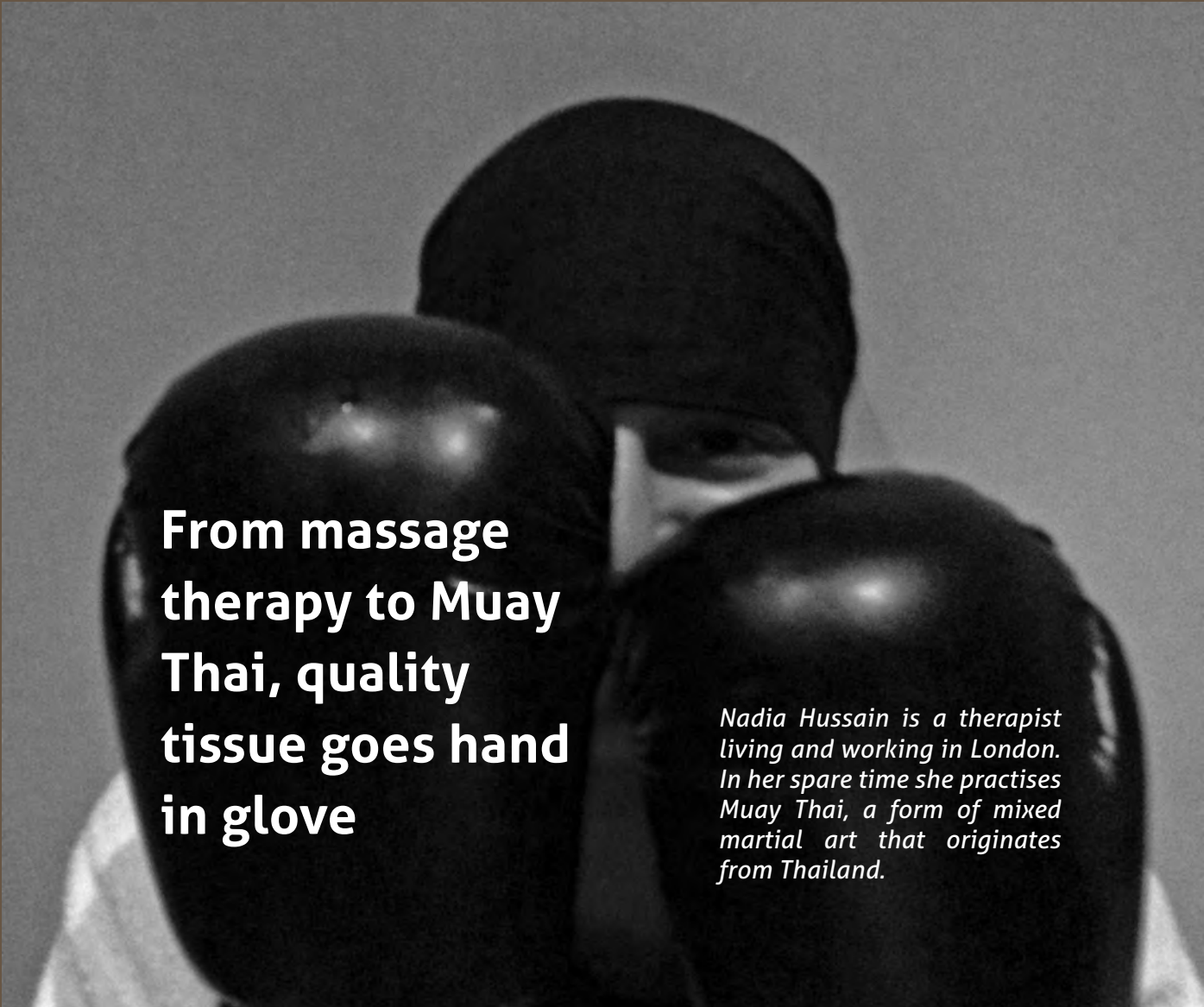
- by banks or exchanges that offer price risk management services for pulp buyers and sellers
- by buyers and sellers of pulp or paper in their normal supply contracts
- companies who want to employ an independent market reference price for internal pricing (e.g. pulp mill – paper/paperboard mill, paperboard mill – box plant) through licensing the commercial use from FOEX.

In addition, our price indices are widely used in financial analysis, market research and other such needs by all kinds of parties linked directly or indirectly to forest product or wood-based bio-energy industries.

This way the companies have better tools to budget their cost or income structure and profitability, and may concentrate on their core businesses with less time spent on price negotiations, which tend to increase in these days as the planning span narrows in the wake of the short, quarterly business cycles and, nowadays, in most cases, monthly raw material pricing decisions.

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### From massage therapy to Muay Thai, quality tissue goes hand in glove

*Nadia Hussain is a therapist living and working in London. In her spare time she practises Muay Thai, a form of mixed martial art that originates from Thailand.*

**A**t home I live with my two sisters and parents so we tend to go for family size packs or bulk buy toilet tissue. We're not big on labels and branded items. The main priority is that a product isn't harsh on the skin, so as long as this is the case we buy the regular white unscented toilet and kitchen paper.

We usually go for the regular Andrex products or most of the time supermarket brands. We shop at our local Tesco so we keep a close eye on prices and 'bogof' (buy-one-get-one-free) deals.

As a Muslim family our parents have emphasised personal hygiene ever since we were babies, so naturally we continue to perform these rituals in adulthood. We use both toilet paper as well as water. The idea of using wipes to clean makeup or just to clean oneself is a new concept to us, so they are not amongst our shopping items. We are so programmed to use clean running water to clean, wash and perform ablution it's second nature to us.

The second most used items is of course the good old

kitchen paper, used for almost everything, as hand towels, cleaning work tops, napkins and for that runny nose.

These two cover our family needs, I tend to carry pocket size tissues and antibacterial wipes with me. Living in a polluted city like London and commuting on the tube I find the antibacterial wipes for the hands a must have!

As a massage therapist, in my practice I do use a lot more tissue-based products. This is essential for good practice and health and safety, to avoid cross contamination between clients and myself.

Disposable hand towels, a couch roll and a box of tissues are all used during my work as a therapist. The hand towels are for me as I wash my hands before and after each client. Just imagine being seen by a therapist with unwashed hand ... eeew!

The couch roll is used to cover the massage bed, and again I use this generously for each client. A luxury box of tissues is there for client comfort and needs.

# Private label and brands – global market dynamics

The key forces shaping private label versus branded tissue markets stem from consumer behaviour, structure of the retail channel and supplier strategies. Here, Pöyry Management Consulting examines examples of each force at play in North American, European and Chinese retail tissue markets.

## Consumer behaviour – who is shaping the market now?

The North American tissue market is characterised by strong legacy brands, and private label market penetration is still significantly lower than in Europe – the North American private label market share is 27% vs. 63% in Western Europe. A decade ago private label market share in North America was only 18%, reflecting the expectation of high quality and familiarity with (iconic) consumer goods brands.

However, private label tissue products have gained share from branded tissue over the past few years driven by recession awakened frugality, increased availability of high quality private label tissue, and the emergence of a new force shaping the consumer market – the Millennials.

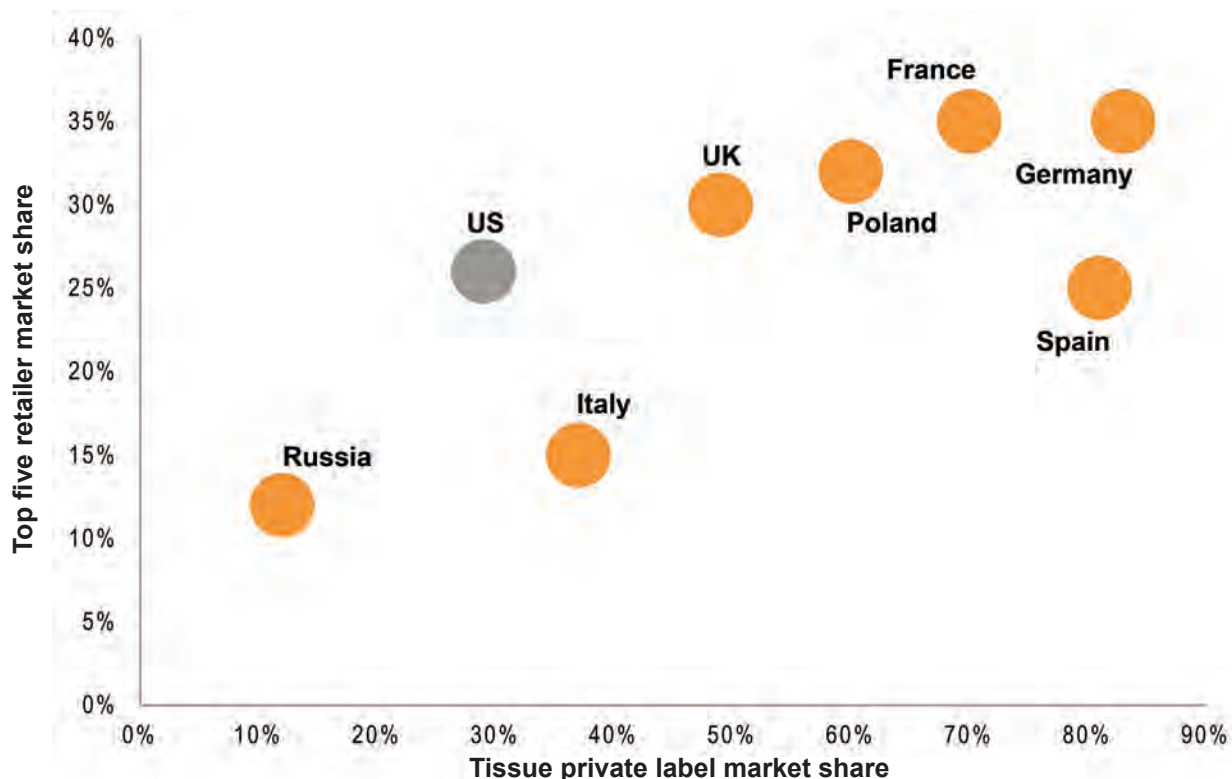
Tissue private label preference and consumption is higher among the Millennials than the more mature consumers. Interestingly, Millennials as a percentage of consumers will grow




**S** *Soile Kilpi & Sanna Kallioranta*

*Director, and PhD senior consultant, Pöyry Management Consulting*

**Retail sector concentration vs tissue private label market penetration in largest European markets**



Graph 1



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## Special Feature

from the current 31% to 46% by 2025. Millennials have matured into consumers amid surge of lifestyle brands. Retailers (such as Whole Foods, Trader Joes etc.) aim to offer a selection of lifestyle products and brands, including their own private label products. Moreover, Millennials have grown up with a multitude of private labels (from milk to apparel, from cookies to kitchen towels) and often without sacrifice to product quality. For them, private label is a less "suspicious" product alternative than for older consumer groups.

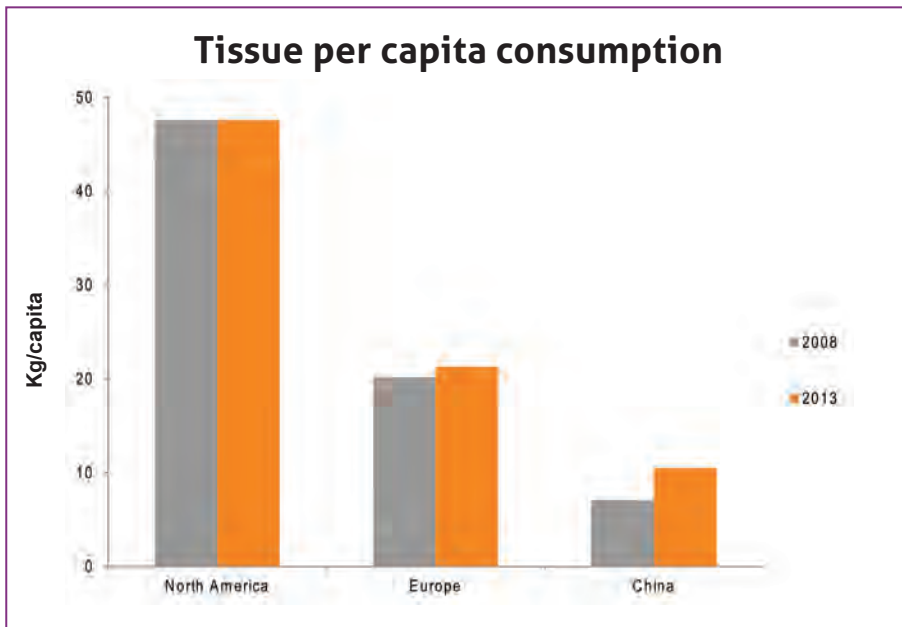
Although the Millennials are the most-educated consumer group, they are earning less than the same age group did in the past, burdened by student loans, slow economy, high unemployment and stagnant wages. Millennials' average earnings are \$33,883, which is the lowest inflation adjusted level since 1980 and down by 9.3% over the past decade vs. flat for older full-time employed Americans (The New York Times, "We Are Making Life Too Hard for Millennials", July 31, 2015).

Frugality has taught Millennials to discount product quality and brand status over cost. Tissue brands have been challenging private label growth by introducing more affordable, less fluffy or strong "basic" versions of the branded products, as well as reaching into their deep pockets for promotional strategies to sway the price sensitive tissue consumers, especially the Millennials, who have significantly higher price sensitivity than the mature consumers.

### Retail sector structure

The key drivers for high private label penetration in Europe, in addition to general higher consumer value orientation and slower economic growth, are heterogeneous local markets from language to culture making it difficult to build pan-European tissue brands, and moreover, high concentration of the retailing sector in many European countries. For example, the German market with over 80% tissue private label share is controlled by the top five retailers (Edeka Zentrale, Schwarz Beteiligungs, Aldi, Rewe, Metro) holding around 35% share of German retail sales. France has a similar retail sector concentration with over 70% private label tissue market share (Graph 1).

Discount stores, as well as super and hypermarkets with a focus on economy



Graph 2

products which typically have strong private label programmes have gained in popularity in Europe. 2014 was the first year a discounter, Schwarz Beteiligungs, made the top five global retailers list displacing Tesco. This highlights the power of low-price and reduced assortment product positioning.

Hence, developing and growing private label programmes has been a key strategy for the largest European retailers to counter the growth in in the discount channel, as well as sluggish overall sales.

The major chains, such as Carrefour and Tesco, have invested in upgrading their private label categories by developing private label lines with more upmarket positioning to attract higher income consumers towards these products. Also the leading discounter chains, such as Aldi and Schwarz Beteiligungs, are developing premium private label lines making it harder and harder for brands to compete and differentiate. Kimberly-Clark is the only North American brand power house left in the European tissue market, after recent exits by Georgia-Pacific and P&G.

## Growing pains

China is still a young tissue market – both for brands and especially for private labels. Tissue demand in China has grown by 8.4%/a since 2008, yet it is still only 22-50% of the per capita consumption levels in the West (Graph

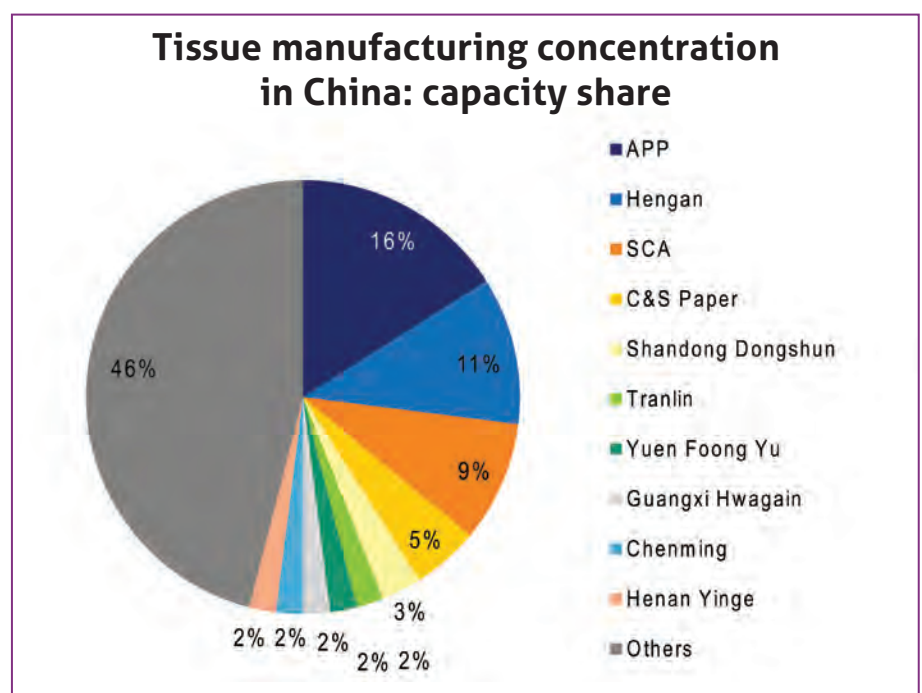
2). Private label products are available in Chinese supermarkets, but the majority of supermarkets have private label share less than 10% of sales. Food, beauty and paper products are key private label categories in China, due to their relatively low technical complexity, high price sensitivity and purchase frequency. Developments in the structure of the Chinese retail sector bodes well for private label growth. The Chinese retail sector has been very fragmented and international chains have been struggling. Hence, the Chinese retail

sector has entered an era of active M&A. A more consolidated retail sector typically brings better opportunities for private label product growth.

If the Chinese retail sector is fragmented, so is tissue manufacturing (Graph 3). There are over 850 tissue mills in China, and the top 10 tissue manufactures have only 46% of the industrial scale manufacturing capacity in the country. APP is the clear market leader with only 16% capacity share and strong tissue product brands (e.g. Virjoy, Breeze, and Zhen Zhen). The tissue manufacturing sector has been booming and 5 million metric tonnes of capacity have been added to the market since 2010, by more than 40 different companies. And more capacity is coming... 2.5 million metric tonnes of new capacity have been announced, by 25 different players. Although brands dominate the Chinese tissue market, high supplier fragmentation and rapid build up typically provide opportunities for private label market growth.

## Markets in North America, Europe and China

One can conclude that change is the only constant in life and actions by all the consumers, retailer and suppliers together shape the market landscape and dynamics. The question is how to embrace change for a winning strategy in the tissue business?



Graph 3



# Why (not) Private Labels?

F.A. RETAIL founder **Fernanda Accorsi** talks to TWM about the issues for tissues

**P**rivate Label (PL) is already a recognised brand in the market. If we consider the thousands of brands from all the retail chains worldwide as a single and solid brand, we realise that it became an important competitor, probably for almost all categories – of course with peculiarities among them. The sales of this new player have been increasing substantially during the past few years and the emerging countries point as a great opportunity for producers and exporters.

It is very important to mention the market share of private labels varies when we compare them across the globe. In the developed markets of North America, Europe and Australia, they are much more accepted as brands than in Asia, the Middle East, Africa and Latin America,

where the quality of cheaper options is still questionable. The perceived value also varies widely from one category to another. Paper products are naturally perceived with little differentiation, and because it is usually considered a commodity, the generic brands in this case gain a larger space.

It is essential to understand that even within part of the same tissue segment, each category requires different purchase behaviours once they are addressed to different uses. Of course, we don't buy toilet paper and facial tissue through the same insights we buy paper towels and napkins – and this statement is enough to explain why 'personal care' products present a higher degree of difficulty in switching from a name brand to a private one.



**Fernanda Accorsi**

*Retail expert and founder of F.A. RETAIL, content and solutions*



Purchase insights: Every tissue category requires different purchase behaviour. Paper can be a commodity, but not always!

## The issue for tissue

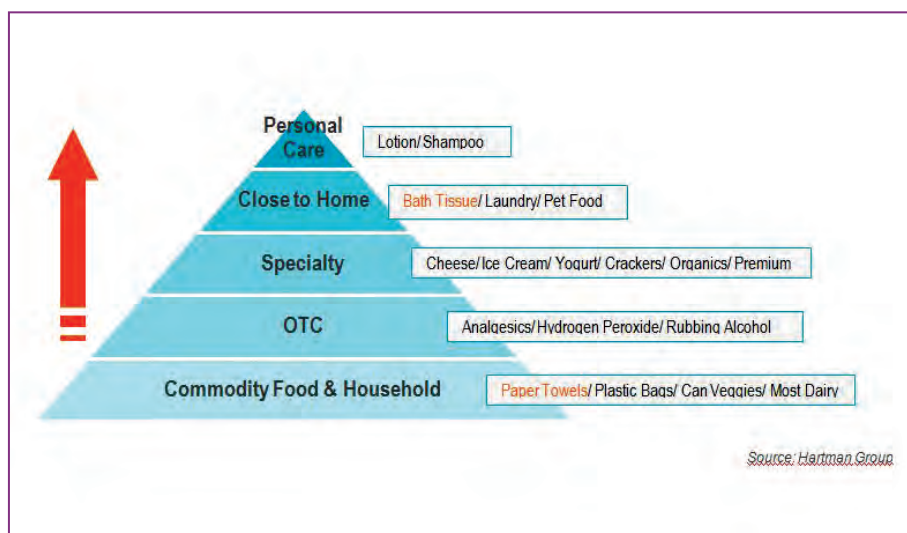
The purchase migration from national brands to supermarket store brands in the tissue segment is a reality and the level of sophistication gradually increases among the new players. It is not difficult to achieve the averages of softness, absorption and strength, especially today with the high number of manufactures, machines and new technologies. The issue is the 'good value for money' positioning that determines the costs and, consequently, the product quality. In developed markets (Switzerland and Spain, for example), with favourable perceptions about private labels, some SKUs already have quality comparable to national brands, and so consumers who expect a price advantage – in this segment it can be 30% less – also understand the similarity in attributes offered.

## What is happening on the shelves?

It is in the POS (Point of Sales) where the private label movement shows its power, and this is where we see both sides performing their best strategies. Brand names at one side are investing time and effort in marketing to build recognised brands that can be purchased nationally (or internationally): new packaging, charismatic mascots and icons, (more) sustainable solutions, better embossing, value proposition, brand message, merchandising campaigns, three and four ply products. Brands that can react to price conflicts by offering small gifts and rewards or specific promotions to compensate their loyal shoppers.

On the other side we see the store brands bringing a timeless deal and a safe option for the neediest pockets. We also see higher investments on their marketing strategies and significant improvements on their SKUs – especially because some brands are produced by the same manufactures of the national brands and they have the know-how to reproduce quality patterns.

Facing this scenario, what is the best option? The answer is quite simple: both. There is no winner, they were made to survive together. For some retailers, PL is the main strategy and they have already replaced almost 100% of their paper portfolio with their own house brand, like the Spanish chain Mercadona – with its brand 'Bosque Verde'. For the others, private labels can be the best option



Private Label tissue pyramid

between the small and mid-sized brands and the fact of having an own label on the shelves can bring their customers closer to their business, improving the brand equity of the whole chain. My advice for these last retailers is: do it well because otherwise, if the clients notice that the quality is low, this will reflect on the company's image and not only paper consumers will be disappointed – but all the customers.

## Finding the balance is a challenge

PL is not usually a direct competitor for the leading brand(s). Actually, the smartest way to show the consumers you have a good deal for them is by creating a healthy comparison between products and tiers – number of ply, softness, jumbo rolls, sizes, packs, etc. Keeping the main national brand in the assortment is a way of establishing a 'quality standard' for the chain and developing a correct 'category management' is also necessary in order to facilitate the purchase process to the shoppers. I have followed chains demanding that their brands should stand side by side with leading brands, not because of a common value proposition between them, but because of a forced positioning and this attitude does not help the client during his purchase experience.

Having the national brand is also profitable for the chains, once they usually get considerable contractual counterparts for having these big names on their shelves: they participate on big campaigns promoted by the brand, they negotiate extra investment for better exhibition, they negotiate secondary

placement in the store (end caps, main entrance island, clip-strip exhibitions), they have a deal for damaged products and packaging and, in some countries, they still request a merchandising assistant from the industry to help in the POS with the 'product replacement' (in Latin America, for example). Name brands also bring customers to the store.

It is extremely relevant to think about the positioning of the chain in the market. Having a private paper brand can be an insightful strategy for big groups or franchising because of the scale of consumption and production, consequently. Discount formats and Cash & Carry stores are great opportunities for high-purchase categories like paper, and adding a PL may be interesting for the target – attention in addressing the right portfolio according to the store and the target profile.

While I was writing this article I tried to remember the first time I used (actually, the first time I bought) a tissue private label and I do not remember, which means that I did not notice much difference. And what about my current opinion: I buy PL sometimes and the quality of some SKUs is undeniable. If shoppers were submitted to an updated blind-test for tissue products, we would probably be surprised by the confusion among leader brands, small/mid-sized brands and private labels.

One last tip: transparent packing and a white and fluffy appearance are 50% of the success in this segment. Have you already noticed this?



# Grade specific optimisation: Permanent (PAE) versus temporary (GPAM) wet strength utilisation

**Kemira talks us through the latest chemical technical developments relevant to your business. A TWM report.**

**H**istorically, it has been quite clear in the manufacture of hygienic paper grades (bath, towel, facial and napkin), which ones have wet tensile specifications and the type and level of wet strength chemistry utilised. Polyamidoamine epichlorohydrin (PAE) resin has been exclusively used to provide permanent wet strength (PWS) sheet properties. Recent advanced development of modified glyoxylated polyacrylamide (GPAM) temporary wet strength technology (TWS) make this chemistry not only a viable option now but possibly the preferred one if one considers its total value proposition. GPAM temporary wet strength technology offers manufacturers' process efficiency benefits as well as sheet strength enhancement options that previously were not available.

This presentation discusses each key tissue grade strength requirement in their respective market segments; "At Home" (AH) consumer and "Away From Home" (AfH) commercial. Conventional manufacturing processes, and the thoughts behind them, will be challenged in this presentation.

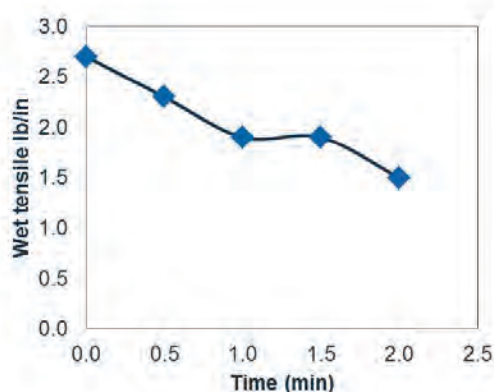
Two case studies will be presented. The first, commercial consumer (AH) bath tissue, will be presented to illustrate how utilising new glyoxylated polyacrylamide temporary wet strength technology addresses the market need to be strong while wet, without flushability issues compared to PAE permanent wet strength.

The second case study will clearly demonstrate how substituting GPAM-TWS for PAE-PWS in a recycle white towel provides significant benefits to the manufacturer.



**Graph #1: Wet Tensile Decay (Finch Cup)**

(Advanced GPAM-TWS: 6 lb. /tonne solids)



TIME	(DECAY %)
IMMEDIATE	0
30 SECONDS	14.8
60 SECONDS	29.6
90 SECONDS	29.6
120 SECONDS	44.4

## Introduction

In some applications, packaging and board for example, the permanent wet strength attributes of PAE resin is essential in maintaining the performance of the packaging material stored in a wet environment for a long period of time. This is necessary because of the refrigerated storage required to maintain food quality up until it reaches the consumers.

The use of paper is much faster when considering applications for the various tissue and towel grades. The act of wiping the hands or the face, for example, does not last more than a few seconds. The consumer uses the paper (bath, napkins, toilet, and AfH towel) and then immediately discards it. The wet strength, in these cases, does not have to last more than a few seconds. However, historically, in both cases the same wet strength chemistry applied is the same - Polyamidoamine Epichlorohydrin (PAE) permanent wet strength resin.

Newly developed Glyoxylated Polyacrylamide (GPAM) technology for the tissue market provides initial tensile fully sufficient for its functional purposes, but has the added benefit of high rate of decay leading to better flushability and disposal. The product performance feature also can translate to easier reuse of any GPAM treated broke in the manufacturing process compared to that produced with PAE-PWS.

As they are distinctly different chemistries, new GPAM-TWS technology can increase crepe control performance, reduce felt filling, and improve broke repulpability compared to PAE application. Additionally, GPAM provides dry strength and improves sheet drainage/sheet drying in the papermaking process.

Temporary wet strength (TWS) additives are comprised of novel cationic glyoxylated polyacrylamide (GPAM) technology well suited to provide multiple benefits and allow PAE-PWS to be



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By Kemira's Clay Campbell, Harold Goldsberry, Kristin Wittich and Felipe Higa

Grades →	Towel		Bath (Toilet)		Facial		Napkin
Commercial Market →	Consumer (AH)	Commercial (AFH)	Consumer (AH)	Commercial (AFH)	Consumer (AH)	Commercial (AFH)	Both
PAE-PWS	Common	Common	Should never be used		Common	Common	Occasional
GPAM-DSR /TWS	Can be used as DSR and not as TWS	Yes Can reduce or eliminate PAE-PWS	Very commonly used	May be used as DSR while maintaining less than 100 sec. decay	Dry Strength	Yes Can reduce or eliminate PAE-PWS	Yes Can reduce or eliminate PAE-PWS
Comments		Users only require less than 10 sec. of wet strength integrity*	Goal: strong while wet good flushability	Provides dry Strength, lint and dust control		TWS and dry strength	TWS and dry strength

Table #1 DSR = dry strength resin, TWS = temporary wet strength, PWS = permanent wet strength

significantly reduced or eliminated. Commercially proven GPAM-TWS technology process and product economic benefits are:

- Increased wet and dry tensile strength
- Utilisation of lower cost furnish (fibre substitution)
- Reduced repulping time
- Reduced basis weight
- Optimized refiner(s) use
- Improved paper machine speed/productivity
- Reduced linting and dusting
- Improved converting efficiency

It is widely known and expected that PAE-PWS wet strength decay rate will only be 10-15% after a paper sample is subjected to 30 minute soak test. As shown in Graph #1, advanced GPAM-TWS technologies can provide much faster and controlled rate of decays in the range of 40-60% decay rate within 2 minutes paper soak time. Significantly higher percent decay and higher rate of decay! New advanced GPAM-TWS technologies are vastly improved over conventional GPAM technology allowing for both a wider range of cationic charge properties and significantly longer shelf life.

## Overview of Strength additives use in Tissue /Towel Grades

The determination of whether a PAE-PWS and/or a GPAM- TWS/ DSR technology should be utilised is dependant on the specific grade type, commercial market and the wet and dry tensile specifications. Even though PAE- PWS has historically been an industry standard, there are now other viable options available. Table #1 illustrates suggested wet strength guidelines for utilising PAE - PWS and GPAM - TWS technologies.

Key takeaways:

- All bath tissue grades: should never use PAE-PWS technology as there is concern for flushability issues, septic tank and municipality operational issues
- Consumer bath tissue grades: TWS GPAM is commonly used and meets consumer requirements for achieving required strength while wet with good flushability and decay
- Consumer Towel: Continues to require PAE-PWS as customer typically reuses and rewets towel and sheet decay may not be desired.
- Commercial (AFH) towel: traditionally, PAE-PWS was the only wet strength option; however, since users require only

10 seconds of wet tensile sheet strength\* and new TWS GPAM technology has become available in the market, there are now better alternative options to PAE-PWS for more effective towel strength decay and/or flushable towel to meet market needs

- Other grades: New GPAM technologies offering both temporary wet strength and dry strength can be utilized to significantly reduce or in some cases eliminate PAE-PWS technology

\* Test results from a February 2009 laboratory study completed by K. Redway, Department of Biomedical Sciences at the University of Westminster London showed that paper towels efficiently dry the hands of users achieving 90% dryness in approximately 10 seconds.

## CASE STUDY #1: PWS vs TWS in consumer (AH) bath (toilet) tissue grade

Store-bought samples of Consumer (AH) premium bath tissue samples were evaluated from both the U.S. and Brazil. The majority of bath tissue in Brazil is made with Permanent Wet Strength (PWS) to control dust and lint on machine and improve converting processes. However this may be the root cause for why the population does not flush bath tissue, and, instead are asked to place it in trash cans as the work around solution to the very low wet strength decay and decay rate of the PAE- PWS.

Figure #2 visually shows the decay of various tissue brands at an initial immediate soak along with a 5 and 10 minute soak. Br1, Br2, and Br3 tissue samples, which are South American premium consumer (AH) bath tissue grades, start breaking up between five to 10 minutes, but there are still large pieces at 10 minutes and even a few large pieces left after 30 minutes soak time. For the US2 a sample, which is a consumer premium bath tissue grade using GPAM-TWS, the US2 sheet is significantly dispersed within five minutes soak time.

This study clearly shows that the commonly used consumer premium bath (toilet) tissue brands in South America have poor rates of wet strength decay and can certainly explain in part the end user concern with both poor flushability and disposal. The root cause of the poor decay rate is most likely the utilisation of PAE-PWS. Implementation of effective GPAM-TWS application, as demonstrated in the US2 sample and one of the leading consumer bath tissue grades in the US, effectively demonstrates strong while wet with good flushability.

By Kemira's Clay Campbell, Harold Goldsberry, Kristin Wittich and Felipe Higa

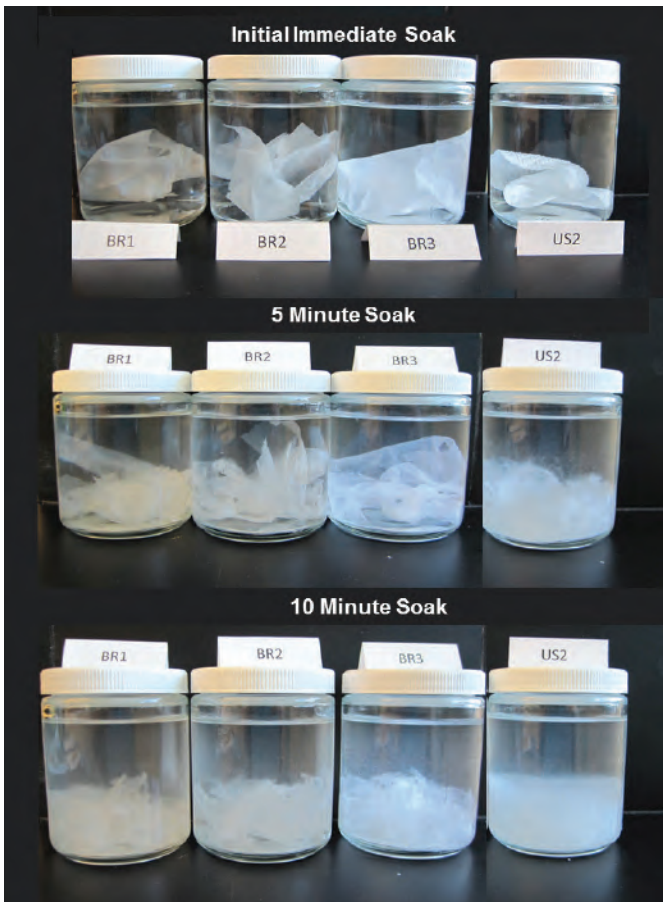


Figure #2

### Case Study #2 Using TWS on recycle fibre AfH white towel

A wet crepe machine producing single ply, 21 # basis wt. recycle white towel utilized 14.3 lb. /tonne, dry solids basis, of PAE-PWS. GPAM-TWS was added at 3 lb. /t, dry solids basis, allowing the PAE-PWS to be reduced by 30% to 10 lb. /tonne. There were multiple economic benefits achieved with this new wet strength programme. These included the ability to reduce basis wt. from 21# to 18# generating \$50/t in fibre savings due to the GPAM dry strength enhancement and 7% reduction in energy from the gas hoods thru improved sheet drainage and easier sheet drying. As well, converting efficiency was improved by 40%, requiring less operator sheet rethreading and increased throughput. White water turbidities were reduced by 50% and polymer usage in the DAF clarification process was reduced by 30%.

### Low pH tissue making

Whether utilising PAE-PWS and/or GPAM-TWS, it is important to understand and, if possible, control the process water chemistry to maximise wet strength performance efficiency (WSPE). The ideal process conditions for GPAM-TWS applications is an operating pH of 4.5-7.5 and less than; 400ppm hardness (ppm CaCO<sub>3</sub>), 5ppm sulfite, 150ppm alkalinity and 2,500ppm conductivity (µS/cm).

In tissue manufacturing processes utilizing virgin fibre sources, low pH (5.5-6.0) eucalyptus and acacia virgin fibres are commonly used. However, in many cases operators intentionally increase the alkalinity and pH by adding caustic soda or soda ash in the wire pit or pulper for several reasons or beliefs; improved

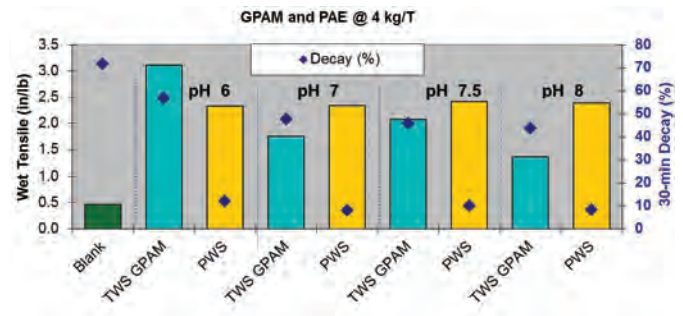


Figure #3: GPAM-TWS and PAE-PWS @ 4 kg/T

crepe control operations, improved WSPE and greater sheet bulk from fibre swelling.

New effective technologies in crepe control (FennoCrepe patented crepe adhesive) and TWS / DSR (FennoRez GPAMs ) allow processes to run very effectively at lower pH levels while obtaining sheet quality benefits and achieving operating process efficiency levels never seen before.

The graph clearly illustrates the wet strength performance and rate of decay differences between GPAM-TWS and PAE-PWS at various pH ranges. PAE-PWS consistently demonstrate low rate of decay (<15% in a 30 minute soak) across the pH spectrum. However, GPAM-TWS provides excellent overall wet strength decay and increasing wet tensile strength performance as the pH is lowered. Even though the GPAM-TWS provides wet and dry strength in the 7.0-8.0 pH range, the overall performance is improved significantly as the pH is reduced below 7.0 with low alkalinity.

### Conclusions

The use of permanent wet strength-PAE to obtain sheet wet tensile properties has been used for decades in manufacturing the majority of tissue and towel grades due to lack of viable alternative wet strength technology. FennoRez temporary wet strength technology can significantly reduce and potentially eliminate PWS- PAE chemistry, offering the manufacturer an alternative option in management of the wet end process, wet and dry tensile strength sheet properties, and the rate of wet tensile strength decay.

The case study #1, application of PWS in bath tissue, clearly highlights and illustrates the need for manufacturers to reevaluate the selection of wet strength technology on a grade specific basis to ensure proper alignment for process operating efficiency, meeting key sheet specifications, addressing end user needs and improved environmental sustainability. The practice of PAE-PWS application in bath tissue grades may not be limited to just Brazil and South America.

Substitution or elimination of PWS in commercial (AFH) towels with GPAM-TWS offers manufacturers a variety of economic benefits ranging from fibre substitution, reduced repulping time, reduced felt filling and the ability to introduce new and improved environmentally friendly tissue and towel products (even a flushable towel).

A process audit can be completed that incorporates the potential overall economic and quality benefits of lower pH (5.5-7.0) tissue making. This audit should take into account program and process goals. This can be an important step to unlock the full potential GPAM-TWS can bring to an operation for specific tissue and towel grades.

*Clayton Campbell is senior manager, global business development; Harold Goldsberry is strength and sizing marketing manager for the Americas; Kristin Wittich is an R&D scientist and Felipe Higa is a tissue application specialist for Southern America.*



# FOCUS ON: Southeast Asia

## An area of high growth using value engineered conventional machines



Bill Burns

Senior consultant,  
Fisher International

Southeast Asia's Towel and Tissue (T&T) production had been experiencing modest but steady growth going into the 2013 - 2014 period. In 2014 several new lines were started or were under construction. Additional expansions were also announced, which, taken collectively, promise a greatly accelerated growth for the 2015 to 2018 period (Figure 1). The Cumulated Average Growth Rate (CAGR) for the period from 2007 through 2017 including the announced lines is a very respectable 10.6%. This compares solidly with the remainder of the rapidly expanding Asia Pacific region with 11.8% CAGR over the same period and a worldwide rate of less than 5%. This significant growth is, for the most part, coming from capital expansions with multiple new machines coming on line or being announced. As announced, Southeast Asia's TM fleet will double by 2018 over the number of machines operating in 2007 (Figure 2), representing a three-fold growth in capacity over that timeframe.

Some logical questions to ask concerning the Southeast Asian market would have to include: Where are all these machines located? When were the machines commissioned? What are the key dimensions of the machine base and new machines being planned? Breaking the market by country,

### Southeast Asia T&T Mill Locations



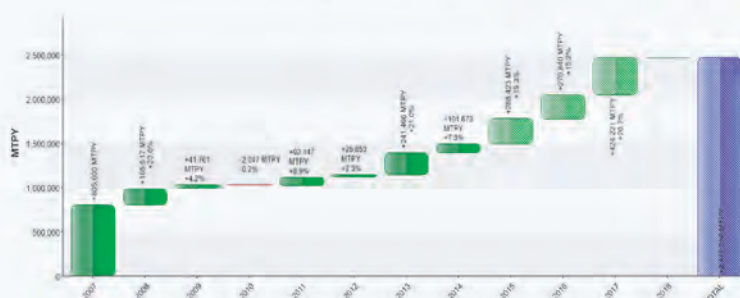
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Source: FisherSolve™



### Southeast Asia T&T Capacity Trend

#### Historic and 4-Year Announced Changes (2007-2018)



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Figure 1

By Fisher International's **Bill Burns**

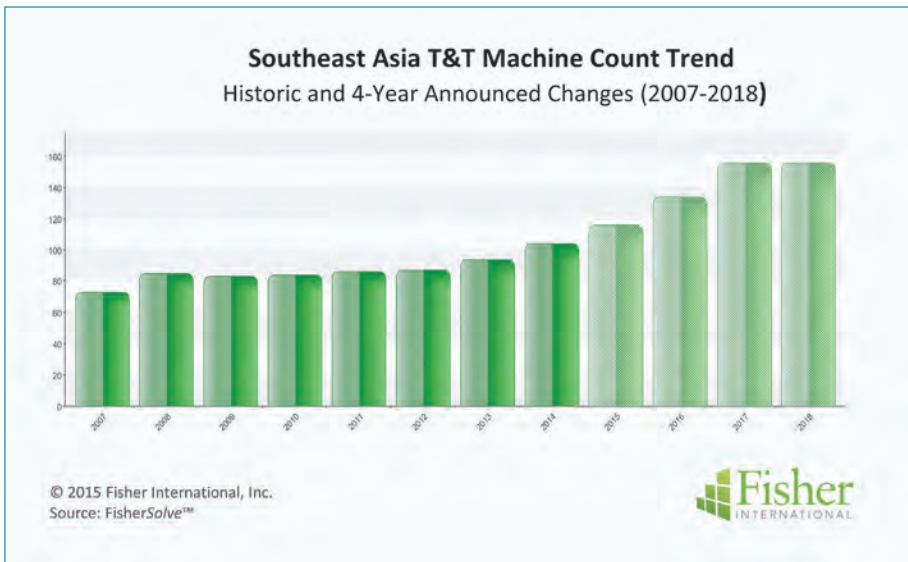


Figure 2

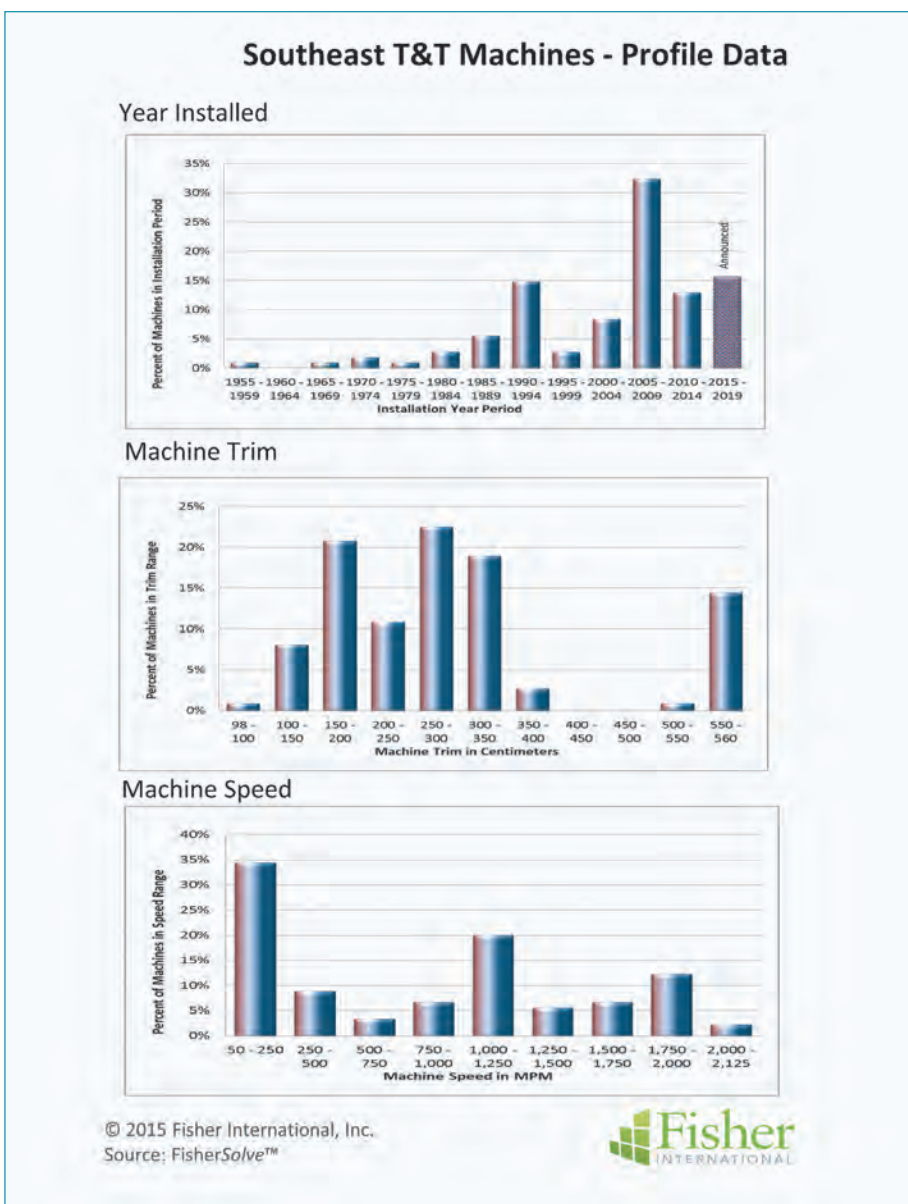


Figure 4

it is clear that Indonesia has a commanding share of production in the region (Figure 3). With 56% of the market share, Indonesia has been and will continue to be at the centre of growth in the area.

Looking at the installed base of machines it is apparent that growth has come in surges. The early 1990's accounts for the first notable surge as about 15% of the machines are from that time period. In 2008 there was a very significant surge with some 30% of the machines coming on line in that time period. Presently, the area is experiencing another capacity increase. Announced capacity increases will account for yet another early-1990's-like surge (Figure 4).

***'Looking at the installed base of machines it is apparent that growth has come in surges. Presently, the area is experiencing another capacity increase.'***

The technology being installed is conventional paper machines of modest speed and trim. Only about 15% of the capacity is from machines five metres and greater. About half of the capacity in the area is coming from two to three-metre machines. Less than two-metre trim machines still hold a significant presence in the area (Figure 4). Like trim, speeds are also modest. While many of the recent additions will run in the 1,700 metres per minute range, there is a large installed base of lines operating at the low end of the speed range (Figure 4).

Country to country, there is very little cost variance with one exception being the Philippines, which has a very advantageous cost profile compared to the remaining Southeast Asian countries. Looking



at cost breakdown by category does reveal some very interesting differentiations among this tight cluster of nations that may be surprising: There is a remarkable difference in fibre cost from one country to the next. The largest producing country is heavily weighted to purchased market pulp where others are more integrated, resulting in a disadvantage for Indonesia. On the other hand, Indonesia has an advantage in energy and labour, offsetting the fibre cost. The Philippines hold the low-cost position for fibre which largely accounts for its overall low-cost position (Figure 5).

**'Looking at cost breakdown by category does reveal some very interesting differentiations: There is a remarkable difference in fibre cost from one country to the next.'**

Heightened focus on global climate change makes carbon footprint a potential competitive factor in the future. Public demand and government regulations can be expected to exert pressure to minimise a mill's carbon footprint. Mitigation cost could be significant for some mills. For Southeast Asia, the mills using large amounts of coal and oil in their power and steam boilers will be most vulnerable. Although all countries have operations using some coal, Indonesia is in the best position while the country with the greatest exposure is the Philippines (Figure 6).

Thus far, we have presented an overview of Southeast Asia's T&T manufacturing environment with some comparisons between the countries in the region. The following profiles each of the five T&T producing countries in greater detail.

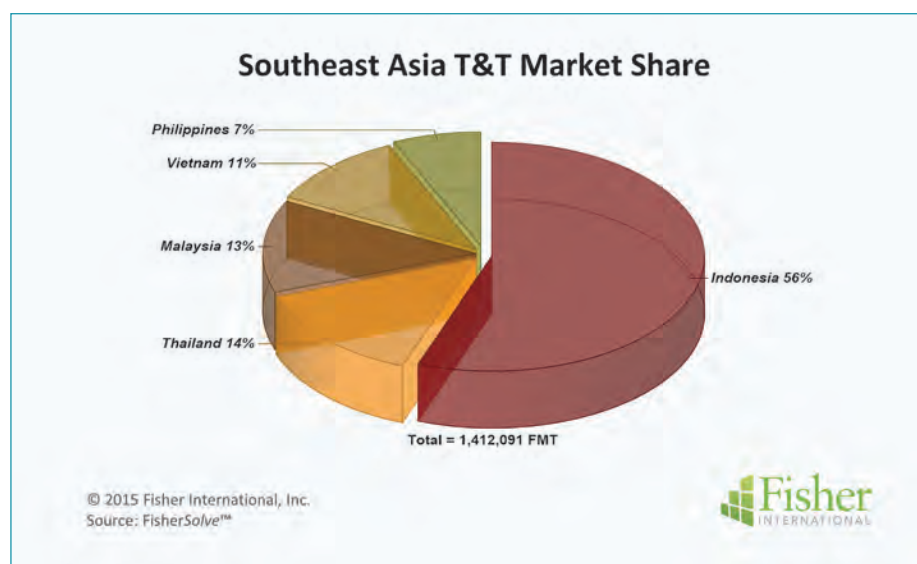


Figure 3

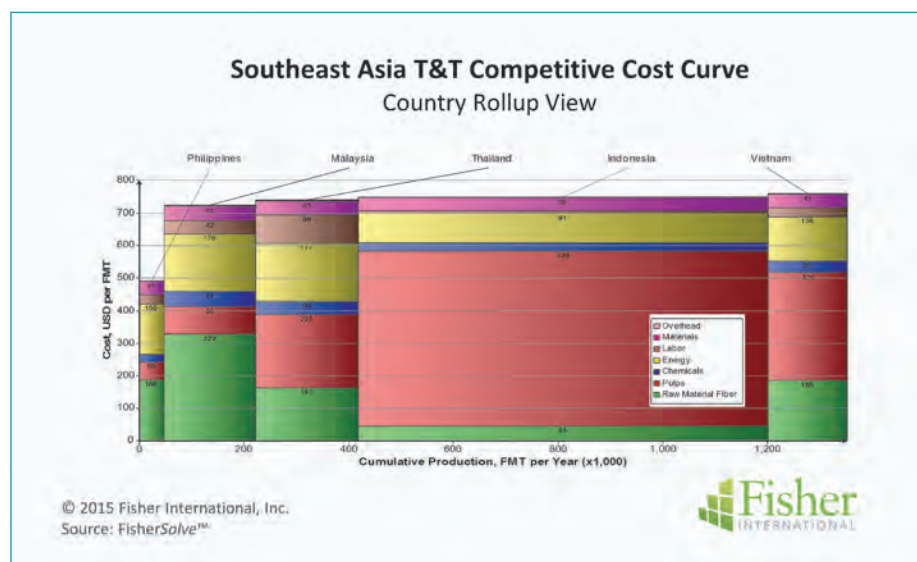


Figure 5

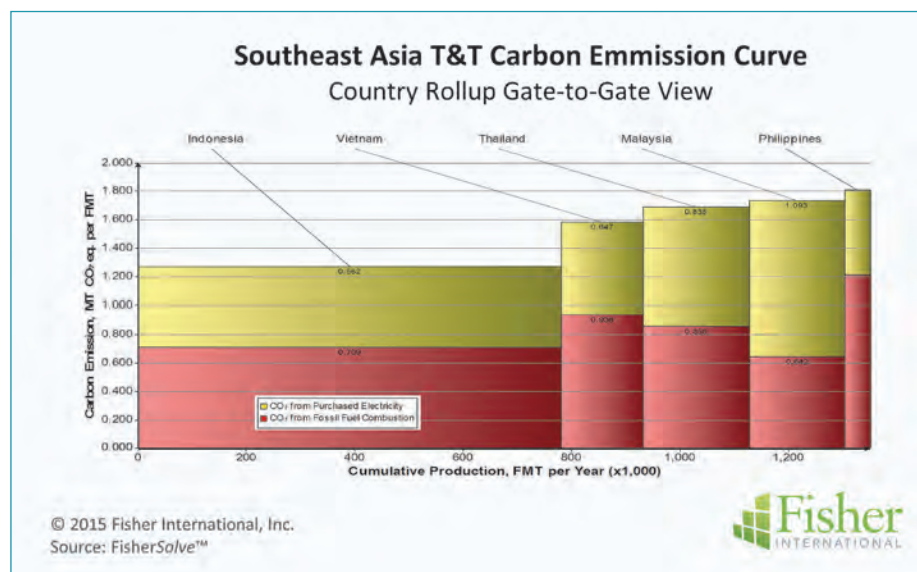


Figure 6

## Indonesia

Indonesia's T&T growth can be credited for much of the rapid expansion in Southeast Asia. With market share greater than 50% (Figure 3), it is clear that rapid expansion in this most populous country of the region, has placed Indonesia in a commanding position in the area. Taking announcements into consideration it appears that the trend will continue (Figure 7). Interestingly, Indonesia's growth is being accomplished with narrow 2.5 – 3.0 metre class machines despite experience with wider, higher-capacity machines. Some of the recent machines (circa 2008) are designed to operate at modest rates of 1,200 metres per minute while the latest additions clock in at very respectable speeds approaching 2,000 metres per minute (Figure 8), suggesting a shift in strategy to higher producing assets.

Indonesia's overall cost position is comparable to most of the other Southeast Asian T&T producing countries (Figure 5). But unlike the other four, fibre represents the lion's share of cost for Indonesia which relies heavily on the use of market pulps. Low labour and energy costs are offsetting some of the fibre cost disadvantage. Labour advantage is coming from both low wage rates and the ability to amortise the manning cost over high production capacity. Energy is driven by lower rates for both fuels and power when compared to the other Southeast Asian mills (Figure 9 side bars).

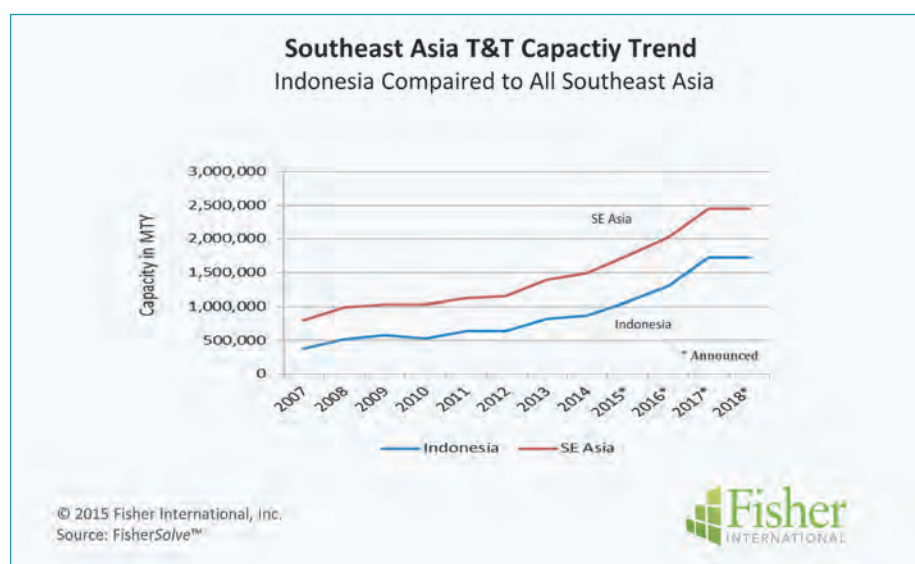


Figure 7

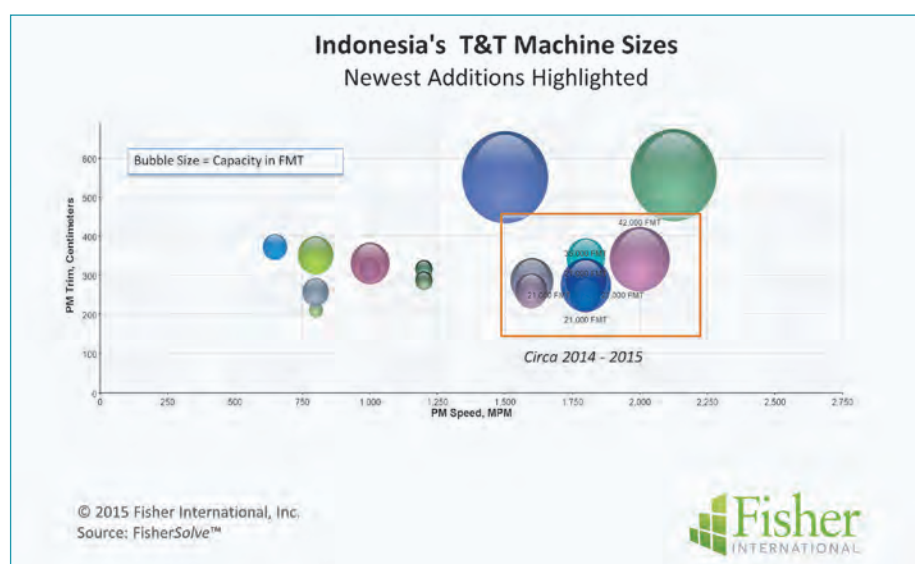


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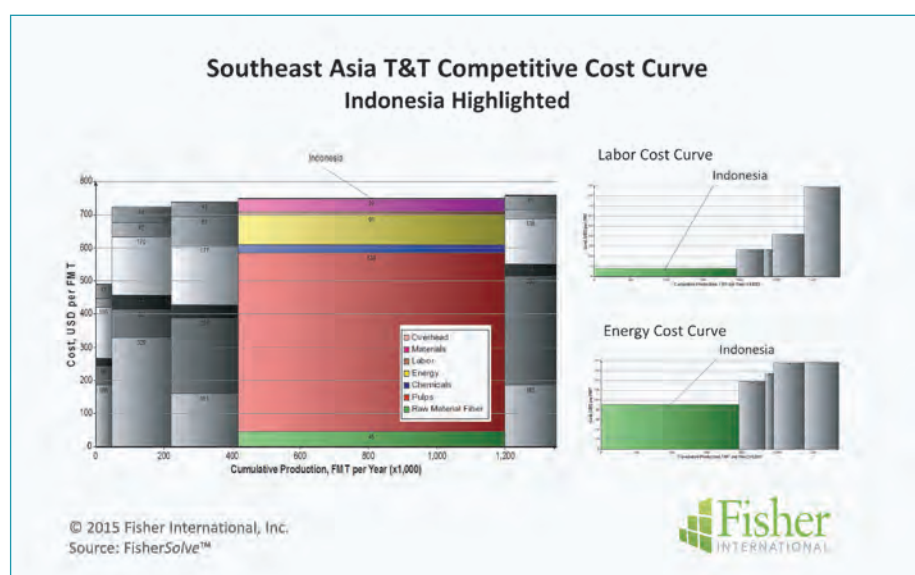



Figure 9





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By Fisher International's **Bill Burns**

## Thailand

Thailand's T&T industry has advanced at a Cumulative Average Growth Rate of 6.02% over the past eight years. This growth is, for the most part, coming from capital expansion with a new machine at the Nong Khai Mill and some productivity gains in recent years (Figure 10). With no announced capacity increases or decreases, future growth is somewhat in question at this time.

Thailand currently holds a 14% share of Southeast Asia's T&T capacity making it the second largest producing country (Figure 3); commensurate with its population but far behind Indonesia's 56%.

The paper machine base in Thailand is typical of the area with three metres or less in average width and operating speeds ranging from 450 to 1,600 metres per minute. The new machine, started in 2014, is big compared to other machines in the country. It trims out wider than most and at a speed within range of the fastest. Production rate of this new machine outpaces the remaining machines in the country (Figure 11).

Thailand's cost position is comparable to most other Southeast Asian countries (Figure 12). Fibre is typically the highest cost item and often the key differentiator throughout the region. For this cost class, Thailand is competitive. With labour and energy, Thailand is less competitive holding the high-cost position for the area in both categories (Figure 12 side bars).

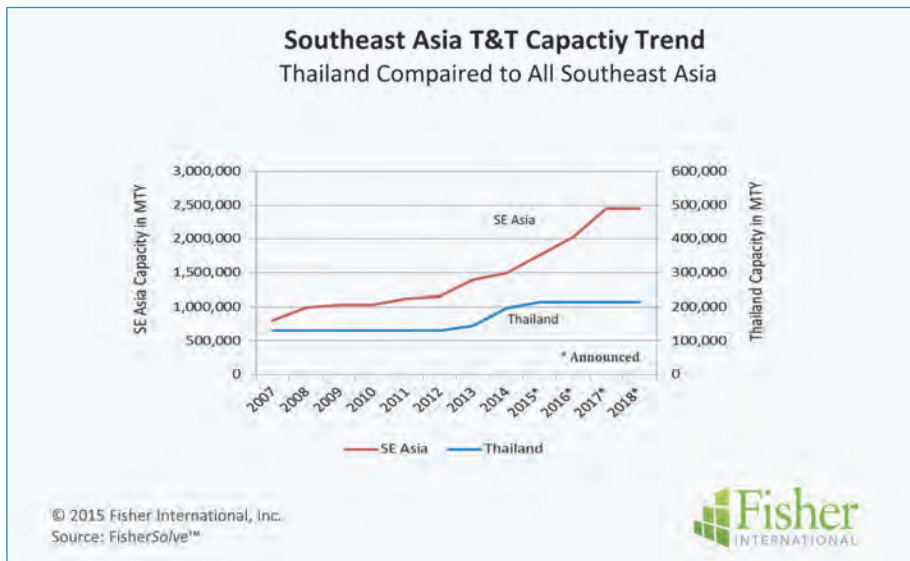


Figure 10

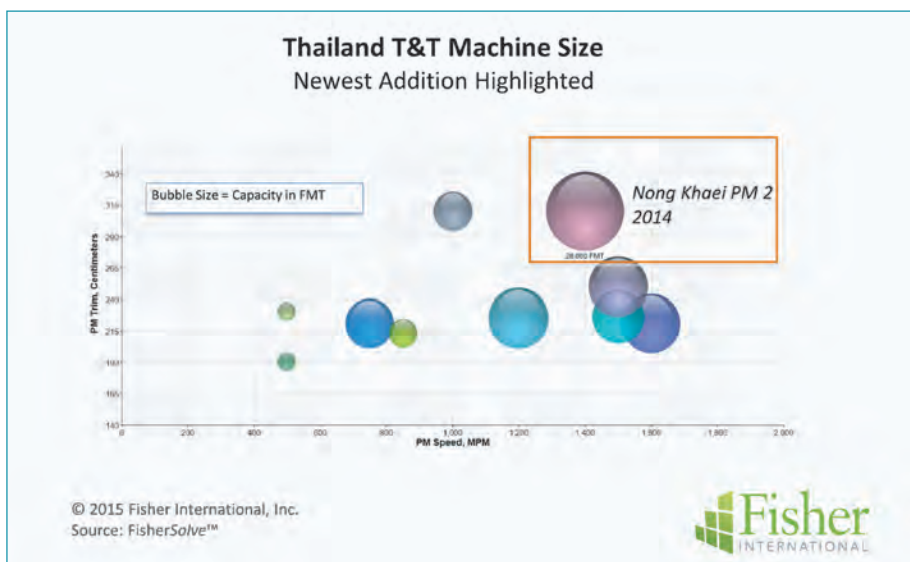


Figure 11

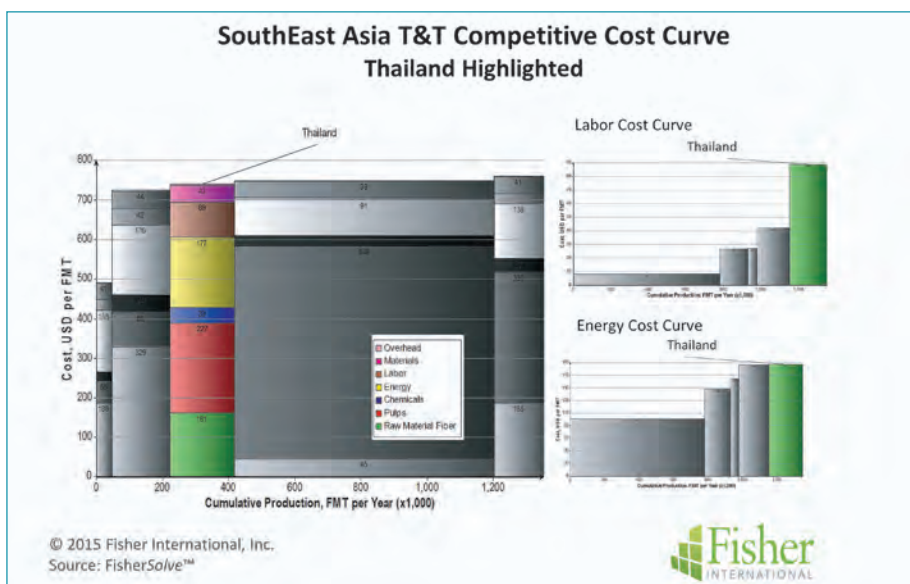


Figure 12



## Malaysia

Malaysia's T&T capacity trend is flat except for one new machine coming on line in 2013. There is some evidence of productivity gains as the new line is optimising. There is an announcement of another machine on the horizon but the timing is not clear.

The trend curve for Malaysia is similar to Thailand adding to the overall Southeast Asian growth as a minor contributor (Figure 13). The future growth is somewhat in question with the uncertainty on timing for the one announced machine and no announced decreases or shutdowns on the horizon. Malaysia currently holds a 13% share of Southeast Asia's T&T capacity (Figure 3) positioning it between Thailand's 14% and Vietnam's 11% even though Malaysia's population is 1/2 and 1/3 of those countries respectively.

The paper machine base in Malaysia is slightly on the higher side of three metre class machines and operating at speeds lower than most, ranging in the 250 to 1,600 metres per minute. The newest machine is a 3.5 metre machine running at 1,000 metres per minute (Figure 14).

Malaysia's cost position is second lowest on the cost curve but not too different from the other countries with the exception of the Philippines (Figure 15). Fibre (all inclusive of purchased pulp and raw materials) is typically the highest cost item and often the key competitive factor throughout the region. For this cost class, Malaysia is on par with the other countries except for the Philippines and significantly advantaged to the capacity leader, Indonesia. In the other cost classes, Malaysia is neither in the high- nor low-cost position versus other countries with the exception of Indonesia where Malaysia is at clear disadvantage on energy cost.

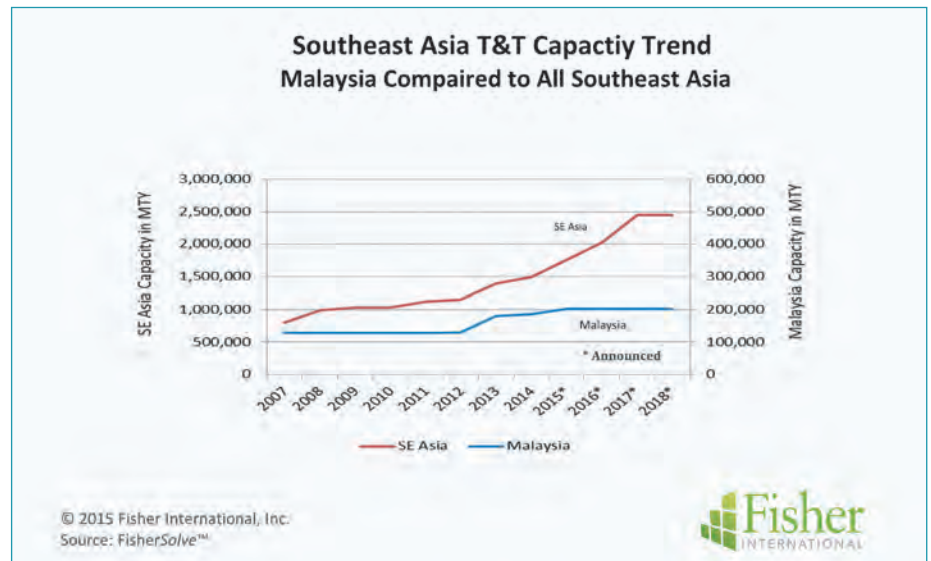


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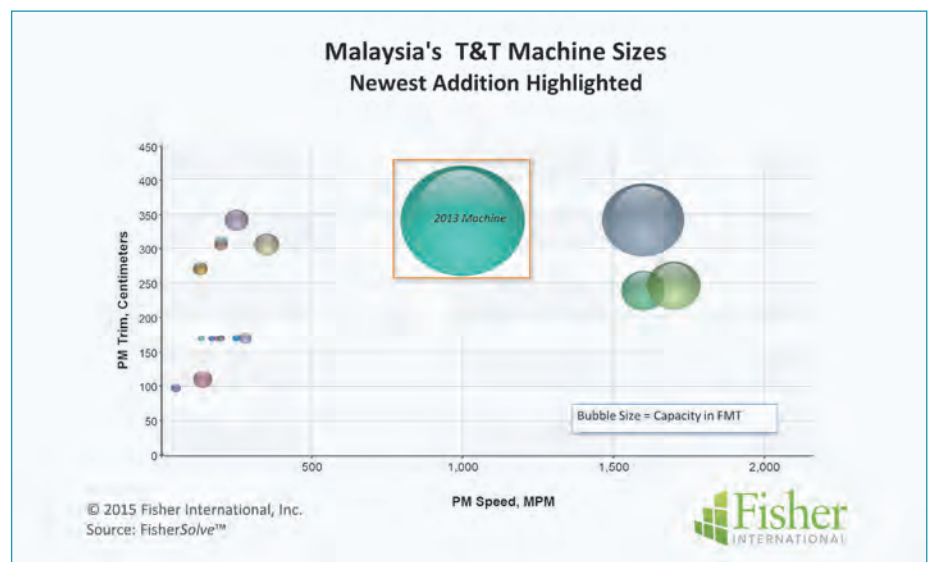


Figure 14

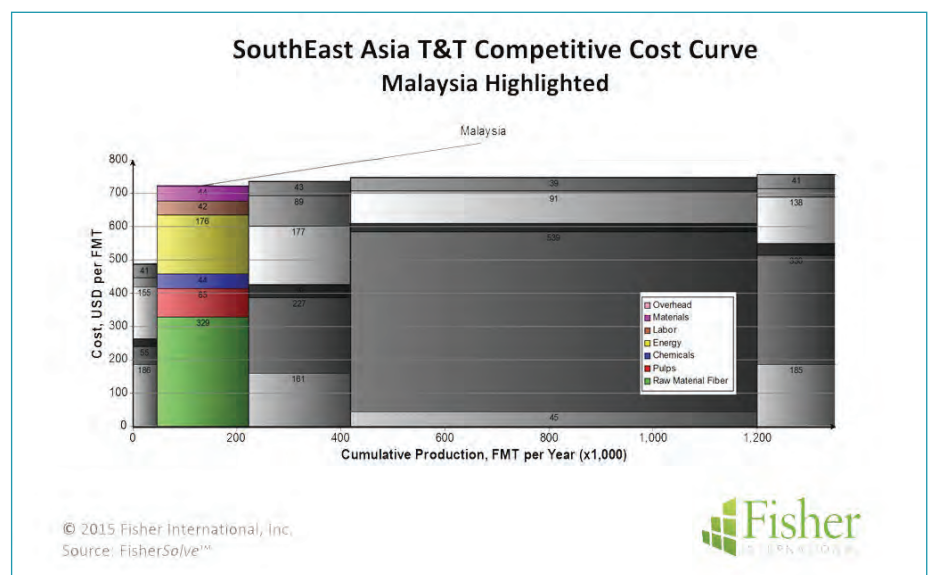


Figure 15

By Fisher International's **Bill Burns**

## Vietnam

Vietnam's T&T industry has advanced at a 6.67% CAGR over the past eight years. This growth is, for the most part, coming from capital expansion from three new machines added in 2009, 2010 and 2012 (Figure 16). With no further announced increases or decreases, capacity change is not anticipated at this time. Vietnam currently holds an 11% share of Southeast Asia's T&T capacity making it the fourth largest producing country (Figure 3) and far behind Indonesia's 56%.

The paper machine base in Vietnam is typical of the area with two to three metre class machines and operating speeds ranging from less than 500 to 1,800 metres per minute. The two fastest machines are 2010 and 2012 vintages and combined, they represent the greatest capacity in the country (Figure 17).

Vietnam's overall cost position is highest, albeit by a small margin, against the other Southeast Asian countries (Figure 18). Fibre is typically the highest cost item and often the key differentiator throughout the region. For this cost class, Thailand is competitive with the largest producer, Indonesia, but higher-cost than the other three producing countries. In other cost classes, Vietnam is neither the high-cost nor the low-cost producer.

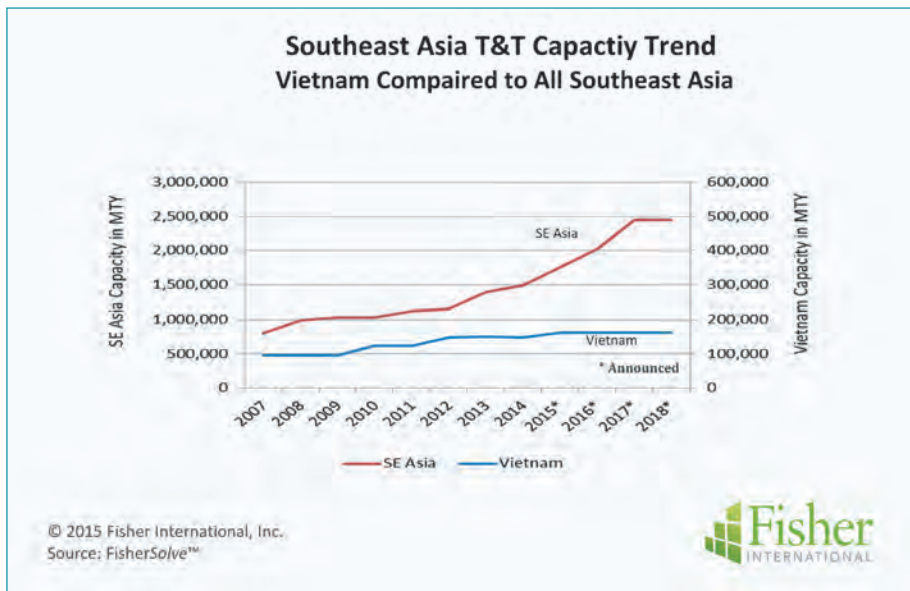


Figure 16

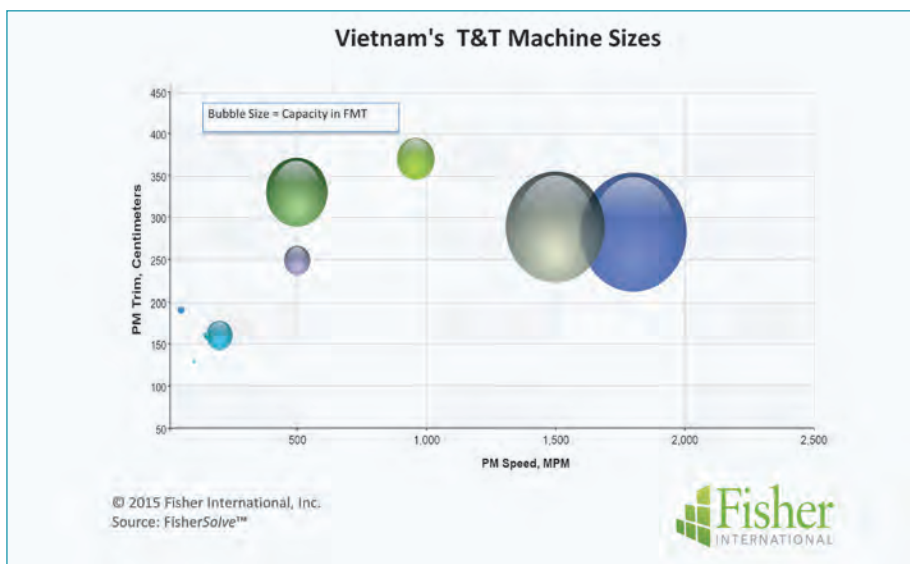


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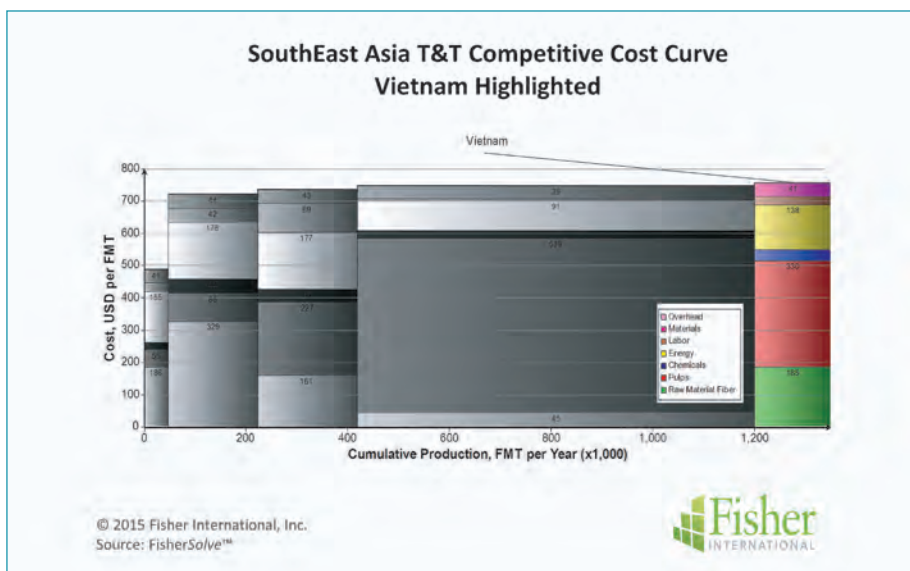


Figure 18



## The Philippines

Philippine T&T capacity has been on a slight downward trend over the past seven years. There were two very modest machines added in 2008 and another in 2010; however the net number of machines has been falling over the period. The condition could be reversing for the near future as there are two machines announced for 2016. The trend curve for the Philippines is mostly flat obviously not following the trajectory of Southeast Asia overall or the growth of the major producing countries (Figure 19). The Philippines currently holds a 7% share of Southeast Asia's T&T capacity making it the lowest producing country (Figure 3) though in terms of population, it is larger than Thailand.

The paper machine base in the Philippines appears to be specified to support local markets. The machines are one and two metre in width and operate in the 200 to 500 metres per minute speed range. The highest capacity machine is a two metre machine operating at 500 metres per minute.

The Philippines hold the low-cost position among the Southeast Asian countries. The nation has a clear cost advantage in fibre when combining pulp and raw materials (Figure 20). Looking at fibre alone, the Philippines has about \$140 per metric tonne advantage over the closet competitive country and about \$340 per metric tonne over the largest producing country, Indonesia. In the other cost classes, the Philippines is neither in the high- nor low-cost producer vis-à-vis the other countries.

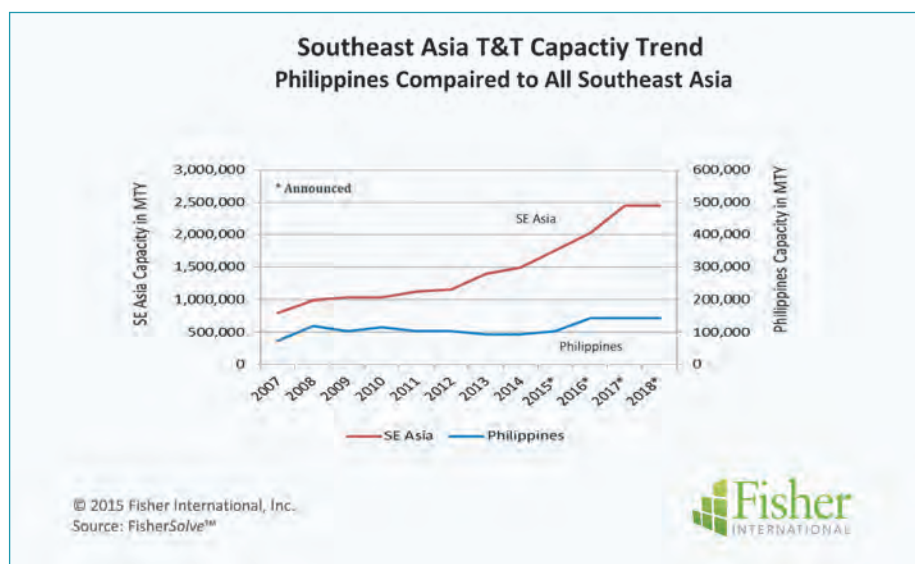


Figure 19

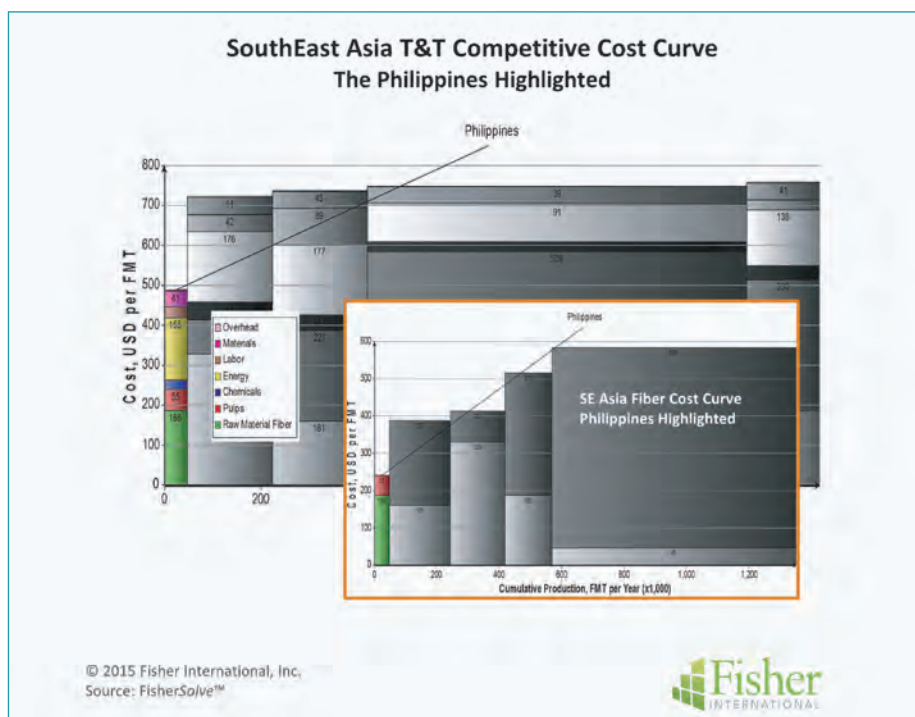


Figure 20

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

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# Southern America: Engaging in the world production chain

**The region's tissue market has three alternatives to respond to an ever-increasing import wave: entrench, adapt or transform yourself. Huntsfield Brasil Consultancy's Geraldo Ferreira talks to TWM about the benefits of a commercial vision.**

Over the last five years, at least, we have all witnessed an unstoppable investments wave in new tissue machines in the whole of Asia, lead by China.

Such a move, no different from any other industry but especially in our pulp and paper industry, is the sign of the typical race of who moves faster to discourage others to follow.

Such strategy is largely applied in the pulp sector and was also the case in coated paper and paperboard, but this does not seem to have brought the expected results for the companies making such moves: food for thought for the tissue industry.

As result of that, today we see the world - and China in particular - with an overcapacity of coated paper, paperboard and tissue.

Tissue paper is the newcomer to the "Obese" market club. Statistics show that China's tissue production capacity exceeds its present consumption by 30% and its operation rates are already in the low 70's%, which is critical to say the least.

Considering the projections of new capacities in the next five years, the situation will not be any easier despite the per capita consumption growth.

Being part of the "Obese" Club they have to find ways to lose weight and that will be through merger and acquisition activity, shutting down inefficient plants (government support), and finally searching for new export markets while increasing the share of the ones they already have a presence in.

Such inevitable moves might scare most of the world's tissue manufactured outside of China, particularly the Western world and especially the South American market, lead by Brazil, and where 10 years ago large-scale tissue

export was unthinkable. Southern America has never previously felt under threat from overseas suppliers and crucially, Brazil has the world's second largest import duty for paper imports (15%), behind only India.

Now the game is at another level and the production scale in China has reached a level where its cash cost against Brazil and Southern American suppliers is substantially lower. In addition, logistical costs in China are less than half of what Brazilians and its neighbouring countries faces, it is inevitable to have Chinese tissue manufactures focusing on this part of the world for their export, simply because it is one the few areas in the world with great consumption growth potential for the next decade at least.

Taking the above into consideration, the huge import duty protection will not be enough to stop China entering South America, and I doubt any country would dare to enter into a dumping threat dispute with China given its influence on the economies of all South American countries.

As I have been saying for almost 10 years; to face the Chinese development wave you have three alternatives; entrench, adapt or transform yourself. The only option I highly don't recommend is the first one. Saying that, why not find opportunities in adversities?

The opportunities I see for the South American tissue industry is to engage in the world's pulp and paper production chain.

China is already the destination of more than one third of all pulp produce in South America, while the Asian country is the largest single overseas supplier of writing and printing paper to the region that supplies them pulp. Thus, for writing and printing papers, to a certain extend, both regions are engaged in the world production chain already.



Such interaction can also happen with Brazil, for example, a country that is responsible for 60% of South American's tissue market, by having its tissue producers develop commercial partnerships with Chinese suppliers to sell their overcapacities through their main assets, which are the market's experience, expertise and knowledge, distribution infrastructures and credit facilities. That is a competitive advantage that is incomparable to any other alternative that Chinese producers could ever have.

On the other hand Brazilian producers could develop locally and create new markets with high value-added products that are not currently available, as well as enlarge their present ones of high commodities.

That will save them from a substantial initial investment in new machines, the headaches of the new equipment learning curves and price erosion due to a sudden new volume trying to find a marketplace.

Considering that such overcapacity in China may balance by the early 2020s, and since the Brazilian pulp and paper association (BRACELPA) has an excellent relationship with the central government, it could present a project to temporarily reduce the import duty for tissue, enabling local producers to



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## E Exit Issues

By **Geraldo Ferreira**, partner, Huntsfield Brasil Consultancy, Brazil

create and develop markets for later on to install new machines, phase out the imports, and avoiding disruption of the market price.

It is definitely a challenge but it is feasible, as long as our tissue manufactures switch their mind set to a commercially driven mentality rather than to a production-only view.

### Driving forces for future demand in South America

**E**conomic growth: constant up and downs, strong growth periods followed by financial difficulties.

Population growth - Latin America continues to grow but at a lower rate, around 1%pp.

Product penetration level - this will be the main demand driver by increasing the number of users and expanding the present users to consume a wider range of tissue products.

Development in tissue quality and product specification - main trend from single to double ply.

China market is less concentrated than developed regions:

China shows lower concentration of tissue supply as top five players take up 44% of total capacity.

Whereas the share in North America and Europe are up to 73% and 56%. Consolidation will take place in the future.

In 2013, the globe consumed 32m tonnes of household paper, of which China accounted for 19%.

In 2008-2013, global consumption of household paper surged by 4.21m tonnes, of which 45% was contributed by China.

Creating market for high end tissue products.

Head to the high end and added value product - Chicken and Egg factor.

Industry still production minded when it should be more commercial minded

Main assets of the Brazilian mills:

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- Distribution
- Brand
- Customer knowledge
- Credit know how and knowledge

Being part of the world production chain

Importation of regular toilet tissue to create and open market for a new machine.

Imports to increase mix products adding high end added value products to your range.

Explore the good government relationship the Brazilian pulp and paper association has to implement a programme of import duty free before a new machine is installed.

China will not invest in tissue production in Brazil. The focus is their local market.

\*(Statistics taken from Geraldo Ferreira's talk at Tissue World São Paulo).

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Shanghai, China



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