

The independent news provider for the global tissue business

TWM

TISSUE WORLD MAGAZINE

ITALY

The classical tradition pioneers
a new smart era

PLUS MARKET ISSUES

The Europeans are coming.
Fight for margins in a crowded US market?

DISTRIBUTION: Smart Robotics

'We need speed ... and we need it now.'

TECHNICAL THEME: Converting

Key innovations in the search for perfection

ConsumerSpeak

'Luxury tissue is essential for a girlfriend's nose'



Italy Country Report: TWM interviews Sofidel's Luigi Lazzareschi (above), Lucart's Francesco Pasquini (right) and Centralcarta's Bruno Del Ministro.



Quick links Page

F	Frontlssues	03
M	Marketlssues	04
W	World News	07
F	Country Report	19
T	Operations Report	34
S	Technical Theme	42
E	Exitlssues	53

TWM

TISSUE WORLD MAGAZINE

In this issue

Page

Frontlssues	3
The fierce battle to define the products of the future in the Home of Tissue.	
Marketlssues	4
How will the tissue connection between Europe and North America continue? By RISI's Esko Uutela.	
World News	7
An in-depth round up of the key tissue news stories from around the world.	
Country Report: Italy	19
T&T capacity leader in Western Europe. By Fisher International.	
Country Report: Euromonitor International	24
Growth in consumer tissue sales hampered by market maturity and sluggish economy. By Euromonitor International.	
ConsumerSpeak	26
Tissue consumer Matt discusses his three-point guide to tissue etiquette.	
Country Report: Italy	28
Converting technology sector in positive mood heading into 2017. By Martin Bayliss.	
Q&A: Sofidel Group	30
Defining the products of the future; TWM interviews Luigi Lazzareschi.	
Operations Report: Lucart Group	34
"We are facing a sophistication of demand" – TWM visits the company's Diecimo, Lucca-based site.	
Operations Report: Industria Cartaria Fenili	39
Searching for distinction in a complex market: TWM visits Centralcarta's tissue mill in Lucca to get the latest.	
Technical Theme: Converting	42
Key innovations in the search for perfection on the converting line. We asked the world's leading converting machinery manufacturers to explain where their R&D efforts are leading them.	
Special Feature: Distribution Special	50
Adapting to every request for end of line or the automatic conveying system: TWM hears from OCME on its latest offering.	
Plus: "We need greater speed on the production floor ... and we need it now". JMP Automation discusses.	
Exitlssues	53
Tissue EU Ecolabel: its current success is the best proof that the scheme works and should not be abolished. By Fanis Papakostas, European Tissue Association.	
Events Calendar	55



TT SYD - 22 FT

EXPAND YOUR PERFORMANCE.

The 2nd Generation TT SYD-22FT confirms Toscotec's global leadership in the design and manufacture of the main component of the tissue drying section.

- OVER 180 INSTALLATIONS IN 33 DIFFERENT COUNTRIES
- FROM INVENTION TO INNOVATION – UNPRECEDENTED KNOW-HOW IN THE PRODUCTION OF STEEL YANKEE DRYERS
- NEW "TT SYD-LAB" DEDICATED TECHNOLOGICAL CENTER: 5,000 m² WITH QUICK ACCESS TO THE PORT
- 2nd GENERATION DESIGN TO IMPROVE YANKEE PERFORMANCE AND REDUCE ENERGY CONSUMPTION IN THE DRYING PROCESS
- SPECIALIZED SERVICE FOR PROCESS OPTIMIZATION, GRINDING, REPAIR AND NON-DESTRUCTIVE CHECKS
- PRODUCT STAMPED ACCORDING TO PED, ASME, CSEI AND JIS REGULATIONS
- UP TO 26 FT IN DIAMETER AND 10 m IN WIDTH

YOUR NEEDS, OUR SOLUTIONS.

The Home of Tissue: driving forward innovation to create the products of the future

It's pressure which produces diamonds, and the fiercely competitive nature of the Italian market is producing some sparkling results. They have been called "smart factories," but tissue factories have always been smart ... these are smarter still.

Industry 4.0 is where tissue technology is advancing: automation collecting data from the entire production line and remotely altering parameters to improve product quality, efficiency, energy consumption ... while the machine doesn't skip a beat, thereby eliminating downtime.

Full integration is the target. Data gathered to create a self-adjusting line. Many fine-tuned small changes to build a better whole.

And the innovation doesn't end there. TWM's Country Report delivers extensive coverage of the sophistication of process and product being employed to fight and win the price war raging across tissue's pioneering homeland.

Italy has long been tissue capacity leader in Europe. By the end of last year there were 204 machines making 6.7+ million metric tonnes of T&T annually in western Europe. That is one-third of the machines and about 30% of the region's tonnes. The share has varied only between 27% and 30%.

While the market is tough anywhere, it's tougher still at the top. A price war is never sound long-term strategy. Customers get to like paying less.

Talking first-hand with leading players the same assessments crop up. Investments and

acquisitions for Lucart Group's Francesco Pasquini need to be organic and targeted "because the competition is so crazy here. Growth is important, but it needs to happen so that each company finds their right position. We focus on leveraging on the point of difference with the product.

"That's the main opportunity and challenge for us amongst the price war we're seeing."

For Bruno Del Ministro, founder of Centralcarta, "the market is at war ... it's all about price in Italy."

Sofidel's CEO Luigi Lazzareschi points to slow economic recovery, lack of consumer confidence, political uncertainty, and strengthening private-label products building positions as premium brands.

Italy remains a steady growth market, but it's much tougher to save margins. How is that being done?

All our Country Report leaders detail their answers inside. It's a fascinating combination of strategies: fearless innovation; immediate and flexible response to increasingly sophisticated consumer demands which are changing with amazing speed; advancing technologies like Industry 4.0; e-commerce; subscription supply; home deliveries; enhancing value creation across the entire route to market; aiming, in Luigi Lazzareschi's intriguing phrase - to de-commoditise tissue paper products.

Speaking of innovation. During our visit, TWM was introduced to a tissue product called Carezza di Latte - which translates as "milk



caress", a premium-priced product made from milk. Sitting in a coffee shop in Lucca I almost ordered one by mistake.

Tissue World Milan 2017

World tissue's biggest attraction is all set for take-off. This is Tissue World's 'Big One,' and kicks off from 10-12 April 2017.

We are expecting to break a few records along the way. An impressive number of world leading companies will be on the show floor. An equally impressive number of leading figures in the industry are set to discuss and share insider information across our conference sessions.

The sampling of all that the best of the Milanese social scene has to offer will be unconfined.

All of us at Tissue World would like to extend the warmest of welcomes. Let's do the business. See you there. Buona fiera.

EDITORIAL HEADQUARTERS

UBM Exhibition Singapore Pte Ltd.

10 Hoe Chiang Road, #20-05 Keppel Towers, Singapore 089315
Tel: +65 6592 0888 • Fax: +65 6221 2282

SR. GLOBAL EVENT MANAGER & PUBLISHER

Agnes Gehot
agnes.gehot@ubm.com

SENIOR EDITOR

Helen Morris
helen.morris@ubm.com

ASSISTANT MARKETING MANAGER

Lei Ching Yew
leiching.yew@ubm.com

MANAGING DIRECTOR

Paul Wan
paul.wan@ubm.com

SENIOR VICE PRESIDENT

Chris Eve
christopher.eve@ubm.com

PRESIDENT/CEO

Jimé Essink
jime.essink@ubm.com

ADVERTISING ENQUIRIES

Americas and Europe

Paolo Rampetta
Tel: +32 497 050 755
Skype: paolo.rampetta
paolo.rampetta@skynet.be

Sales Asia-Pacific

Agnes Gehot / Rane Tan
Tel: +65 65920888 ext 886 / 861
agnes.gehot@ubm.com / rane.tan@ubm.com

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

Please send address corrections to **UBM Exhibition Singapore Pte Ltd.**

10 Hoe Chiang Road, #20-05 Keppel Towers, Singapore 089315
Tel: +65 6592 0888 Fax: +65 6221 2282
Email: info@tissueworld.com

Subscription online at www.tissueworldmagazine.com

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

Copyright 2005 - 2016 by UBM Exhibition Singapore Pte Ltd. All rights reserved. All materials printed in Tissue World magazine is owned by UBM Exhibition Singapore Pte Ltd and protected under the copyright act. No material may be reproduced in part or in whole without the prior written consent of UBM Exhibition Singapore Pte Ltd.



How will the tissue connection between Europe and North America continue?

For several decades, North America and Europe shared some of the same tissue suppliers. However, during the last decade a lot has changed. Previously, North American companies were expanding into Europe, and now exactly the opposite is taking place. European tissue companies have shown increasing interest in participating in the North American tissue business, while in recent years every North American supplier, with the exception of Kimberly-Clark, has withdrawn from their former European operations.

This is an interesting issue, and in the following some developments and reasons why this is happening will be discussed.

We believe it was in the 1950s when the first North American tissue company, Kimberly-Clark Corporation (K-C), became active in Western Europe, namely in West Germany and the UK. Scott Paper followed a couple of decades later, as well as Kruger with its acquisition of a tiny mill (Velcarta) in Italy; Kruger later entered the UK market.

James River expanded into consumer papers in the 1980s and a couple of acquisitions that included tissue capacity in France and Spain were part of its European shopping tour. Procter & Gamble (P&G) was the last main player who came to Europe through the acquisition of the VP Schickedanz tissue assets in 1994, expanding further thereafter.

In 1995, Scott Paper merged with K-C and in 1997 James River purchased Fort Howard to form Fort James.

In 2000, Georgia-Pacific (GP) acquired Fort James and in 2005, Koch Industries acquired GP. However, today, the first entrant, K-C, is the only remaining North America-headquartered tissue supplier still active in Europe, although it recently rationalised its supply scope by closing or selling a number of its mills.

Until the late 1980s, North American suppliers were able to use their well-known brands and strong marketing support to establish a healthy position in the European markets. However, in the 1990s this started to change very rapidly, mainly for two reasons: private or retailer labels started a very fast initial growth phase and competition became extremely fierce because of sub-regional overcapacity after too many investments, in France and Spain in particular, and the aggressive expansion of Italian suppliers in the export markets, which was tightly linked with the private label growth.

This competitive situation resulted in shrinking profitability and retailers saw a chance to achieve better margins through selling private labels than participating in brand promotions together with the brand owners. The same strategies used in the US market did not work in Europe, and this was very difficult to understand by the managements of the leading marketing-oriented consumer goods companies, such as P&G and K-C.

Kruger was the first to withdraw from Europe. First, the company lost the Italian mill in a serious fire only a few years after the acquisition, and decided not to continue that operation as heavy investments would have been needed. In the UK, it also closed some capacity in the early years of the last decade, but its final retirement from the UK (and European) business did not take place until late 2009.

However, the first major hammer hit was made by P&G when the company decided to withdraw from the European tissue business after heavy and costly promotional efforts did not bring the targeted market shares for its brands in Europe, and the company sold its assets to SCA.

After its acquisition of G-P, Koch Industries was very suspicious about the European business, with which the



owners did not have much experience, and the rumours of the company's departure were flying even before SCA acquired the European tissue assets of G-P in 2012. K-C might have also been interested withdrawing from the European tissue business, but the deal between SCA and G-P removed the only reasonable purchasing candidate for all the assets, and the company's only alternative was to sell some of its non-core assets to improve profitability.

Meanwhile, on the other side of the equation, European tissue companies seem to have become very interested in North America. SCA was the first with its purchase of Wisconsin Tissue as a consequence of the G-P/James River deal. The company then decided to expand through both building a new mill and some smaller acquisitions, but only in the AfH business.

SCA is still not involved the North American consumer tissue business, but if it does jump in, it will most likely be through a major acquisition. Sofidel surprised almost everyone with its acquisition of Cellynne Corporation in 2012 and has continued its expansion through both converting acquisitions and new investments. The company's first new mill, in Circleville, Ohio, with two large PMs and converting, will likely be only the beginning of Sofidel's path to an important position in the North American tissue market. Further growth will certainly follow.

Will any other European tissue companies follow in the tracks of these two main European players? The next largest European tissue companies are WEPA of Germany, Metsä Tissue of Finland and ICT (Tronchetti) of Italy, in this order. Of these, it would be hard to believe that the Finnish Metsä Tissue with its strict focus on its Nordic and Central and Central-Eastern European operations would seriously think about expansion into North America, particularly considering the ownership of the company.

ICT is a cautious and deliberate company, with a good sense for how to succeed; we feel a North American entry would be risky, but not impossible. However, acquisitions have never been a key target in ICT's strategy.

But what about the third-largest European-based player, WEPA? The company's management is known to be interested in growth, and as a practically totally private label-oriented company,

its North American expansion potential is certainly interesting. The company is not very strong financially, although this has been improving recently; WEPA currently relies heavily on high-yield bonds, which might also be available for further expansion.

The latest information we have is that the company is actively searching for a chief executive for North America, so something seems to be going on. However, we do not know any further details of this plan, such as if the company would like to have somebody for a potential acquisition or for establishing converting and/or tissue mill building activities. We have heard this from several sources, in North American and elsewhere, so this seems to be more than just rumour, but we cannot 100% confirm what is going on.

But the question remains: why is the industry developing in a completely different direction from before? The answer is actually very simple.

Companies are well aware of where you can make money more easily or have higher margins, and for the past 10-15 years, or probably even longer than I can remember, this has been in North America rather than Europe.

Furthermore, the European market is rather mature as population growth is minimal and product penetration levels rather high, and it may never reach the average US level of consumption because of different cultural habits.

However, North America is now getting very crowded with new projects, and it is unclear how all the new competition and supply will affect the average price level and margins.

For any further new movements, we do not see the North American market offering any handsome opportunities for new companies, as this year and next will see tighter competition in spite of the likely more-than-expected demand growth seen in 2016.

TISSUE TEC

Sales & Service GmbH

We are your experienced and reliable partner for

SECOND HAND / USED TISSUE CONVERTING EQUIPMENT

- Toilet and Kitchen Roll Rewinder Lines
- Napkin Folders and Wrappers
- Facial Tissue Interfolders and Cartoners
- Industrial Roll Rewinder Lines
- Pocket Handkerchief Lines
- Handtowel Folders

SMART SURPLUS SOLUTIONS

www.tissue-tec.de

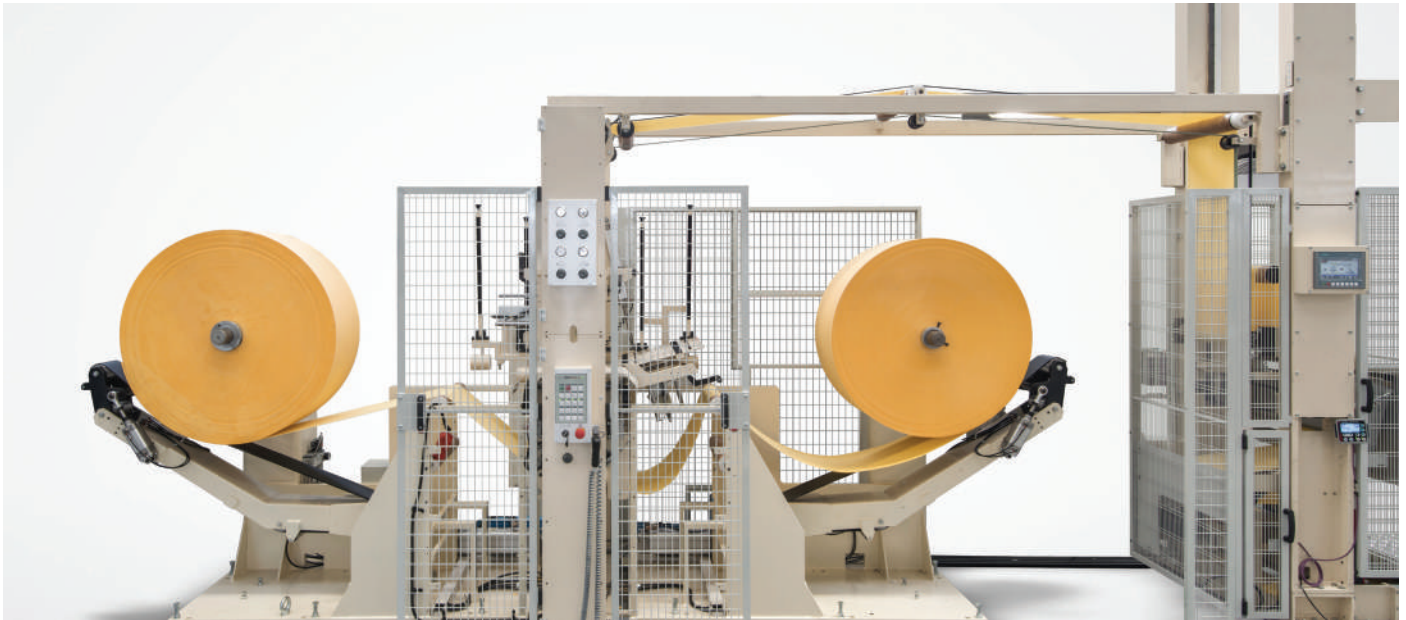
TISSUE TEC Sales & Service GmbH
In der Birk 9 / D - 41542 Dormagen
Tel. +49-2133-9771616 / Fax +49-2133-9771618 / info@tissue-tec.de



Constellation

18 MONTHS, 5 CONTINENTS, OVER 50 LINES
THE CONSTELLATION EFFECT

VISIBLY MORE



No-Stop unwinder: Omet's patented new launch allows operators to change paper rolls without stopping the machine within a specific timeframe

GLOBAL

Omet launches "No-Stop" unwinder

Omet has responded to customer demand with the launch of the No-Stop unwinder.

The patented module allows operators to change paper rolls without stopping the machine within a specific timeframe, which according to the supplier increases production and reduces waste levels.

This latest innovation from OMET was born from listening to numerous customers' requests to have more control over production planning, assuring more and more efficiency.

Omet said: "The No-Stop unwinder automatically switches from one paper roll to another, even on double-ply, without stopping the press thus allowing the operator to change the roll in a much quicker and certain manner."

"When the roll currently being used by the machine comes to an end, a photoelectric cell detects this information and activates a buffer which begins to store the remaining paper."

"The paper reserves are then used as soon as the No-Stop unwinder connects the second roll, allowing the machine to continue to operate at a reduced speed, but sufficient enough to maintain the invariable machine settings, preventing the machine from stopping and notably reducing the amount of waste."

The new model can be integrated into all of OMET's tissue converting machines, offering a new opportunity for increased efficiency and production control.

K-C reports consistent 4Q results amongst "competitive environment"

Kimberly-Clark has reported fourth quarter 2016 net sales of \$4.5bn as it noted a "challenging economic and competitive environment".

Organic sales for the period increased 1%, including 3% growth in developing and emerging markets. Changes in foreign currency exchange rates reduced sales by 1%.

Fourth quarter operating profit was \$839m in 2016 and \$630m in 2015. Results in 2015 included \$108m

of charges for the Venezuelan deconsolidation. The consumer tissue segment reported fourth quarter sales of \$1.5bn, a decrease of 1%, as currency rates were unfavourable.

Fourth quarter operating profit of \$295m increased 13%. The comparison benefited from cost savings and input cost deflation, partially offset by slightly lower net selling prices and unfavourable currencies.

In North America, the company said sales were essentially even with year-ago levels; volumes were up slightly, including an increase in paper towels compared to 8% growth in the base period.

Sales in developing and emerging markets decreased 3%, volumes fell 4%, while net selling prices improved 1%.

In developed markets outside of North America, sales fell 1%, including: "a 4 point drag from unfavourable currency rates". Volumes were up 3%, mostly in Australia and Western/Central Europe.

For the full year 2016, the company recorded sales of \$18.2bn, a decrease of 2% compared to the year-ago period, as changes in foreign currency exchange rates reduced sales by about 4%.

Chairman and chief executive Thomas J. Falk said the full-year results were consistent with the company's previous outlook.

"While we experienced a challenging economic and competitive environment in 2016, our market share positions remained broadly healthy."

"We also achieved record cost savings, which helped us improve our margins

This latest innovation from OMET was born from listening to numerous customers' requests to have more control over production planning, assuring more and more efficiency. Omet said: "The No-Stop unwinder automatically switches from one paper roll to another, even on double-ply, without stopping the press thus allowing the operator to change the roll in a much quicker and certain manner."

"We will also continue to manage our company with financial discipline, with a focus on cost savings, cash flow and shareholder-friendly capital allocation. We remain optimistic about our opportunities to create long-term shareholder value."

Thomas J. Falk

and deliver bottom-line earnings in line with our guidance for the year.

"In addition, we generated strong cash flow and returned \$2.1bn to shareholders through dividends and share repurchases."

He added that in 2017, the company will execute its Global Business Plan strategies in what Falk expects to be "a continued difficult environment".

The company will target innovation, marketing and targeted growth initiatives.

"We will also continue to manage our company with financial discipline, with a focus on cost savings, cash flow and shareholder-friendly capital allocation. We remain optimistic about our opportunities to create long-term shareholder value."

He added that net sales in 2017 are expected to be similar to 2016, including organic sales growth of approximately 2%.

Solenis announces price hikes on process chemicals and PAM products

Solenis has increased the price on its process chemicals and Polyacrylamide (PAM) Products for the Asia Pacific region. Effective immediately or as contracts allow, a 5-10% increase will occur on select process chemicals and PAMs.

Varying increases can also be expected for different products and countries where there has been significant local currency devaluation.

Charles Robinson, senior vice president, pulp and paper, said: "Increasing costs associated with key raw material, labour, transportation and production are driving this price increase."

"Solenis continues to invest heavily in R&D and our manufacturing footprint to allow us to provide industry-leading product support and value to our pulp and paper customers."

The company is a global producer of specialty chemicals for the pulp, paper, oil and gas, chemical processing, mining, biorefining, power and municipal markets.

Metsä Tissue becomes fully owned by Metsäliitto Cooperative

Metsä Group has said its parent company Metsäliitto Cooperative has purchased Jozef Antosik's 9% ownership share in Metsä Tissue Corporation through a share acquisition.

The deal was completed on 2 February 2017 and as a result, Metsäliitto Cooperative now owns the entire share capital in Metsä Tissue Corporation.

Metsä Group focuses on wood supply and forest services, wood products, pulp, fresh fibre paperboards and tissue and cooking papers.

Sales totalled €4.7bn in 2016 and it employs approximately 9,300 staff and operates in 30 countries.

Metsäliitto Cooperative is the parent company of Metsä Group and owned by approximately 104,000 Finnish forest owners.

Elsewhere, Metsä Group's sales for the year January–December 2016 were €4,658m, compared with €5,016m the same time a year earlier. Operating result was €442m compared with €542m.

For the period October–December 2016, sales were €1,175m compared with €1,205m year-on-year.

President and chief executive Kari Jordan said: "Metsä Group's business operations developed according to expectations in 2016."

"Our profit-making ability continued to be good, and the balance sheet strong. Our profitability in comparison to the previous year was affected by the lower market price of pulp and the start-up phase of the new folding boxboard machine at Husum."

The company's production capacity is growing; Metsä Group's investments in 2015–2017 amount to approximately €2bn of which about 85% is directed to Finland.

He added: "Our starting point for 2017 is stable. We will continue our long-term work for profitable growth as well as efficiency and productivity improvement in all of our business areas. Metsä Group's year will culminate

in the start-up of the bioproduct mill in the third quarter."

Kemira hikes up prices

Kemira has increased the price of its pulp and paper FennoSize AKD chemicals in EMEA.

The price increase of the AKD sizing chemicals will be approximately 5-10%, depending on the specific formulations and could differ in selected geographies. The company said the adjustment is necessary due to "significant raw material costs increases".

It will be effective immediately or as customer contracts allow.

Kadant Solutions launches Conformatic AL creping holder for tissue industry

Kadant Solutions has targeted the tissue industry with the launch of its Conformatic AL creping holder. The company said the next generation Conformatic holder incorporates the latest technology, bringing improved blade holder performance. The holder is designed for use in all Yankee doctor positions including cut-off, creping and cleaning. Kadant said: "Significant upgrades to the holder's adjustability was achieved with a proprietary adjustment mechanism allowing for precise control of the holder profile across the entire Yankee face without the need for edge fingers."

"The robust construction is designed for today's high-performance tissue machines and features a self-conforming liquid tube, a backup blade, and a quick removal feature that allows the holder to be removed for cleaning and maintenance."

"Optional smart features can be integrated to provide real time process feedback such as vibration and load. The holder is available in new doctor systems or as a retro-fit to existing Conformatic holders."

Jerry Vandomos, director of tissue market sales at Kadant Solutions, said: "With this next generation model, we focused on features that would make it easier to use and minimise risk to the Yankee."

"The proprietary adjustment mechanism allows for effortless bi-directional adjustment, with enough movement to accommodate even the most extreme Yankee crowns."

"The new design uses adjustment screws to maintain the desired positioning and eliminates the need for edge fingers."

Keep your tissue business moving forward



The Advantage NTT tissue machine gives you competitiveness and unique flexibility to easily swing from production of premium quality textured to conventional tissue in just a few hours. Compared to traditional technology it gives excellent softness and high bulk using less energy and fiber per roll. Advantage NTT – the new standard in premium quality tissue making.

Our advanced services and automation solutions improve the reliability and performance of your processes. Read more at valmet.com/NTT.



OMT targets green and lean with glue-free micro-embosser

OMT has responded to customer demand by introducing the glue-free micro-embosser glue-free micro-embosser, an optional feature that can be integrated into its napkin folding lines.

The company said it wanted to achieve a napkin free of any contamination from added chemicals such as glue.

It claims it is one of a kind and also translates into a 'green', eco-friendly product that respects the environment while remaining bacteria-free.

OMT said: "We're always striving for production to be greener, as well as looking for ways to contain costs while providing innovative systems."

"The napkins produced with our point-to-point micro-embosser do not use glue for the paper plies bonding - this creates an uncontaminated micro-embossed product that is free of any added chemicals and any potential bacterial charge."

UK

SCA strengthens UK tissue presence with TAD investment

SCA is to invest SEK160m in a through-air drying (TAD) machine at its tissue plant in Skelmersdale, UK.

The investment is to "meet the growing demand for high-quality tissue and strengthen the product offering in the UK" and once up and running, production capacity of TAD mother reels will be 28,000tpy. An older tissue machine in Stubbins will also be closed and SCA has signed an agreement to divest its tissue plant in Chesterfield to Sidcot Group.

In a statement SCA said: "These measures are part of SCA's Tissue Roadmap and are aligned with the company's strategy to streamline production and secure capacity for

future growth to increase value creation in the tissue business area."

Stubbins has an annual production capacity of 20,000tpy and the cost for closing the older tissue machine is expected to amount to approximately SEK120m. The site produces mother reels but has no converting capacity.

Sidcot Group will pay a consideration of approximately £3m for the production facility in Chesterfield. It has an annual production capacity of 31,000tpy, producing mother reels with no converting capacity. SCA said it has no internal need for the type of mother reels produced at the plant.

An older tissue machine in Stubbins will also be closed and SCA has signed an agreement to divest its tissue plant in Chesterfield to Sidcot Group.

PACKAGING SOLUTIONS FOR TISSUE PRODUCTS

HIGHLY EFFICIENT, COMPACT AND PROVEN CASE PACKING EQUIPMENT.



CASE PACKER | MODEL 459

PACKAGING SOLUTIONS

Since 1955, the name of FOCKE & CO is synonymous with the development of innovative machinery for special applications for the packaging industry. We focus on precision, service and customized packaging solutions for your product.

GERMANY | Phone: +49 4499 82-0 | sales@focke-ps.de
USA | Phone: +1 336 449-7200 | sales@fockegso.com
www.focke.com

Tissue World Milan | April 10 - 12, 2017 | Milan, Italy
Fieramilanocity Hall 3, booth F10

FOCKE & CO
MASTERPIECES OF GERMAN ENGINEERING

CHINA

China's Guangxi Tianlifeng starts 20,000tpy tissue machine in Nanning

Guangxi Tianlifeng has kicked off production on a new 20,000tpy tissue machine at its sole mill in Nanning city, in southwestern China's Guangxi autonomous region.

The first sheet of paper rolled off the line earlier this month.

Supplied by Chinese firm Dazheng Machinery, the unit has a width of 3.5m and a design speed of 1200m/min.

Besides the new PM, the company runs another 11 tissue machines with a combined capacity of 35,000tpy at the same site.

According to a company spokesperson, the output of all the lines is furnished with a mix of bagasse pulp and wood pulp, both sourced from the market.

Guangxi Tianlifeng was acquired by Guangxi Lifeng Paper in 2015. The latter also distributes converted tissue products produced by Lee & Man Paper Manufacturing.

(News from www.risiinfo.com)

Vinda Paper (Zhejiang) boosts capacity with TM investments

Vinda Paper (Zhejiang) has taken delivery of two tissue machines supplied by Toscotec.

TM3 and TM4 are scheduled to be installed at the company's Longyou mill in spring and complete start-up in mid-2017.

Once production is underway, capacity at the site will be boosted by 60,000tpy to achieve a total production capacity of 210,000tpy. The mill is targeting the

The Taison Group is forging ahead with its tissue paper expansions in China, ordering four 60,000tpy tissue machines for its greenfield mill in Jiujiang city, Jiangxi province. Voith has been signed up to provide the units, each with a trim width of 5.6m and a design speed of 2,200m/min.

eastern China market.

According to the supplier, TM3 and TM4 have a wide-ranging energy saving concept, the TT DOES solution (Drying Optimisation for Energy Saving), and are able to deliver premium quality tissue.

Taison Group gets four tissue machines for Jiujiang mill in Jiangxi

The Taison Group is forging ahead with its tissue paper expansions in China, ordering four 60,000tpy tissue machines for its greenfield mill in Jiujiang city, Jiangxi province.

Voith has been signed up to provide the units, each with a trim width of 5.6m and a design speed of 2,200m/min.

The group's tissue expansion scheme in Jiangxi came to light in October 2016 when an environmental impact assessment document was published by Jiujiang city authorities.

It revealed that the group's subsidiary in Jiangxi province plans to invest RMB 9.81bn (\$1.43bn) in building a new plant which will have a 480,000tpy tissue paper capacity, and hygiene product lines capable of making 1.8bn sanitary pads and diapers per year.

The project will be carried out in two phases, with 240,000tpy of tissue capacity coming on stream in the first stage, and the remaining tissue capacity – as well as all the hygiene product lines – starting up in the second stage.

No detailed timeline on the expansion

project has been formally disclosed, but local media reported that construction began at the beginning of this month and the first phase will be finished by the end of this year.

Based in Putian city, Fujian province, the Taison Group is also building new tissue capacity elsewhere in China.

In late 2014, its subsidiary Shanghai Taison Pulp acquired Guizhou Chitianhua, a bamboo pulp producer in Chishui city, in the southwestern province of Guizhou.

Its facility is getting a pair of 60,000tpy tissue PMs from Andritz. The first unit was originally planned to start up by the end of 2016, followed by the second in 2017.

But a source close to the project said that construction work at the site is still underway.

The delay was caused by inconvenient traffic conditions, as the Chishui plant is situated in a mountainous area.

(News from www.risiinfo.com)

Guangdong Shaoneng orders new 27,000tpy tissue unit

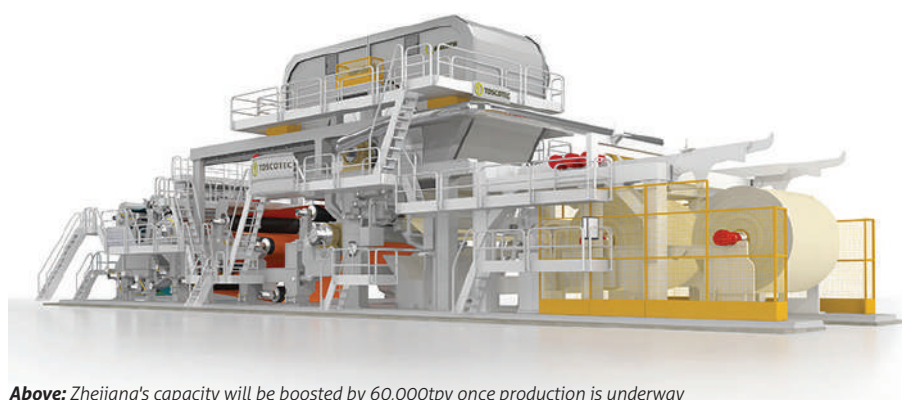
Guangdong Shaoneng Group has placed an order for a new 27,000tpy tissue machine for its pulp and paper mill in Nanxiong city, Guangdong province.

A.Celli has been signed up to provide the unit, which will have a trim width of 2.85m and an operating speed of 1,600m/min.

It will be equipped with a 12-foot Steel Yankee dryer, according to the Italian supplier. Capable of processing both wood pulp and bamboo pulp, the TM is scheduled to start up in the second half of this year.

The plant is run by the company's subsidiary Shaoguan Nanxiong Zhuji Paper and currently has a capacity of 65,000tpy of bamboo pulp, 35,000tpy of uncoated printing and writing paper and 25,000tpy of tissue paper.

The company diversified into the tissue sector in 2014, selling its bamboo pulp to tissue paper manufacturers and then marketing the final converted products under the brand Shaoneng Unbleached. In August last year, its first tissue



Above: Zhejiang's capacity will be boosted by 60,000tpy once production is underway

PCMCAD



Above: Shanghai-headquartered Taison Pulp-Making Group boosts capacity

machine came on stream at the Nanxiong mill. The Andritz-supplied unit is partly integrated with the on-site bamboo pulp line.

(News from www.risiinfo.com)

Taison Group boosts capacity with rewinder investments

Taison Pulp-Making Group has ordered four A.Celli Paper-supplied tissue rewinders to be installed at its Jiangxi-based mill during 2017.

The lines will have a width of 5.6m and a speed of 1,000mpm; they are equipped with four unwind stands, calendar, slitter system, winding system, dust removal system, etc.

They have been ordered just one year after the order of three tissue rewinders of the same model, also supplied by A.Celli Paper.

So far, the company has supplied one tissue machine Line and 14 rewinders to the Taison Group.

The TM has a width of 2.8 and a design speed of up to 2,000mpm and is located in the Chongqing Tongnan mill; five paper rewinders are located in the Zhejiang Haiyan mill; two 5.8m paper rewinders are located in the Anhui Maanshan mill and three 5.6m tissue

rewinders will soon be installed in its Guizhou Chishui mill.

Shanghai Taison Pulp-Making (Group) is based in Shanghai, China, and is a large international group enterprise integrating forestry, pulp-making, plastic packaging, timber processing, real estate and trading.

C&S Paper considers tissue expansion in Hubei

C&S Paper is mulling over adding 200,000tpy of new tissue paper capacity at its mill in Xiaogan city, Hubei province, to feed demand in central China.

The project would involve a total investment of RMB1.2 billion (\$172.5m), according to a statement from the Shenzhen-listed company.

It would be carried out in two phases, with the first stage needing an investment of RMB600m to bring 100,000tpy of tissue paper capacity online within five years. No further details were available at this time.

Ranked as the fourth largest tissue producer in China, C&S Paper operates six plants with a total capacity of 466,000tpy.

The Xiaogan mill currently houses two

tissue machines, which came on stream in 2005 and 2009 respectively, with a combined capacity of 22,500tpy.

In November, the company unveiled another expansion scheme, to add 75,000tpy of new tissue paper capacity at its Tangshan plant in the northern province of Hebei.

News from www.risiinfo.com

Hengan Group boosts capacity with double PM investment

Tissue manufacturer Hengan Group has increased its capacity after it invested in two MODULO-PLUS ES tissue machines. Supplied by Toscotec, the two lines will be installed at the company's Changji mill in the region of Xinjiang.

They are the first two tissue lines supplied by Toscotec to Hengan and they have a production speed of 1,600m/min and a width of 2.8m.

They are equipped with TT Headbox SL-T full hydraulic single layer headbox, TT SuctionPressRoll-SPR1200 big diameter suction press roll, TT SYD-12FT 2nd GENERATION Steel Yankee with optimised rib design, TT Milltech high efficiency natural gas heated hybrid hood, steam and condensate system.

Start-up is scheduled for during 2017.



Sofidel rewards its most sustainable suppliers

Sofidel awarded the winners of the first edition of the **Sofidel Suppliers Sustainability Award**, the recognition that the Company, first in the tissue sector, established to promote, disseminate and enhance the best practices and improvement measures implemented by its suppliers in the field of social and environmental sustainability. The award is based on the TenP platform, a self-assessment tool designed and sponsored by the Global Compact Network Italy Foundation, of which Sofidel is a founding member and promoter. In addition to congratulating the winners of the three categories, we extend our thanks to all the suppliers who participated and to the partners Elettric 80, Fabio Perini, Södra and Henkel (Global Partner), SAP, Pulsar and ICP (Premium Partner), Treedom (Official Partner) and TWM (Media Partner), who contributed to the event's success.

Best Supplier



Best Improver



Best Sustainable Project



AMERICA

Clearwater Paper restructures tissue facilities

Clearwater Paper has announced it will permanently close its Oklahoma City tissue converting facility and shut down two of its tissue machines at its Neenah, Wisconsin mill.

All 131 of the Oklahoma City staff will be impacted until the site's eventual shut down on 31 March 2017.

The facility converts large parent rolls of tissue into packaged products.

Group president Pat Burke said: "As an integral step in our overall strategy to optimise our operations through better asset utilisation, we will be taking these difficult but necessary actions while delivering on our growth objectives."

The company said that because of significant productivity gains from its cost and optimisation programmes across the company, it expects the site's production to be absorbed and supplied by other Clearwater Paper facilities.

The shutdown of two of the Neenah location's highest-cost tissue machines will affect some 85 of the facility's 400 staff and removing a total production capacity of 32,000tpy.

Three remaining tissue machines will continue to manufacture private label and AfH tissue products.

Clearwater Paper manufactures quality consumer tissue, AfH tissue, parent roll tissue, bleached paperboard and pulp at manufacturing facilities across the nation.

It is a premier supplier of private label tissue to major retailers and wholesale distributors, including grocery, drug, mass merchants and discount stores.

Clearwater boosts private label capacity with \$340m NTT investment

Elsewhere, Clearwater Paper has responded to customer demand for premium and ultra-premium products by investing in a second tissue machine and converting facility at its site in North Carolina.

The shutdown of two of the Neenah location's highest-cost tissue machines will affect some 85 of the facility's 400 staff and removing a total production capacity of 32,000tpy. Three remaining tissue machines will continue to manufacture private label and AfH tissue products.

The 200-inch, Valmet-supplied NTT tissue machine will be started up at a site adjacent to the company's existing facility in Shelby during the first quarter of 2019.

Construction is expected to start during the second quarter of this year, while the converting and warehouse operations are expected to be completed during the second half of 2018.

Linda K. Massman, president and chief executive, said: "Clearwater Paper's customers are requiring more premium and ultra-premium products, which we are addressing with the new capacity."

"These high growth segments have increased 3.5 times than the overall tissue market, and we are committed to growing with our strategic customers and positioning ourselves to add new customers."

"We believe this new capacity will reinforce our leadership in the private label tissue business and will be a significant driver of operating earnings growth while strengthening the quality of our manufacturing assets."

At full production capacity, the tissue machine is expected to produce approximately 70,000tpy of bath, paper towel and napkin products.

The estimated cost for the project includes \$283m for the tissue machine, converting equipment and buildings, and \$57m for the purchase and expansion of an existing warehouse that will consolidate all southeastern warehousing in Shelby.

Clearwater Paper projects that the construction of the new facility will be completed in early 2019 and fully operational in 2020.

Clearwater Paper Corporation: Net 4Q sales down 1.4% y-o-y

The company has also reported net sales of \$425.6m for the fourth quarter

of 2016, down 1.4% compared to \$431.6m the same time a year earlier.

The company said this was mainly a result of lower paperboard prices and shipment volumes.

EBITDA was \$49.3m for the quarter compared with \$58.2m year-on-year.

Net sales in the Consumer Products segment were \$242.1m for the quarter, up 1.6% compared to \$238.3m.

The company said this increase was due to market share gains, which resulted in growth of total tissue volume and a richer product mix that included a 6.4% increase in retail tonnes sold.

Total tissue sales volumes of 96,886 tonnes in the fourth quarter of 2016 increased by 0.8% and converted product cases shipped were 12.9m, up 2.1%.

Average tissue net selling prices increased 0.7% to \$2,496 per tonne in the fourth quarter of 2016, compared to the fourth quarter of 2015.

Massman added: "Our priorities for 2017 are to complete what remains of our previously announced strategic projects, integrate our Manchester Industries acquisition and begin work on the newly announced paper machine in Shelby, North Carolina."

Clearwater Paper manufactures quality consumer tissue, AfH tissue, parent roll tissue, bleached paperboard and pulp at manufacturing facilities across America.

It is also a premier supplier of private label tissue to major retailers and wholesale distributors including grocery, drug, mass merchants and discount stores.

Resolute reports results; prepares to ramp-up Calhoun tissue operations

Resolute Forest Products has reported a net loss for the quarter ended 31 December 2016 of \$45m, compared to \$214m in the same period a year earlier. Sales were \$889m in the quarter, essentially unchanged from the fourth quarter of 2015.

For the year, the company reported a

"Clearwater Paper's customers are requiring more premium and ultra-premium products, which we are addressing with the new capacity."

Linda K. Massman, president and chief executive

The company's tissue segment generated operating income of \$1m during the quarter, \$6m more than the previous quarter. This result was largely due to "a substantial reduction in the delivered cost", which fell by 27% over the quarter.

net loss of \$81m compared to a net loss of \$257m in 2015.

Annual sales were \$3.5bn, down 3% to \$100m from the previous year.

Richard Garneau, president and chief executive, said: "We maintained our focus on costs and reliability, delivering improved operating performance compared to the third quarter.

"Contribution from our paper segments ended the year on a solid note, as cost reductions offset price declines.

"In tissue, our efforts at Atlas started to yield results and our Calhoun converting operations are now fully commissioned. We expect the start-up of our new tissue machine to begin over the coming weeks."

The company's tissue segment generated operating income of \$1m during the quarter, \$6m more than the previous quarter.

This result was largely due to "a substantial reduction in the delivered cost", which fell by 27% over the quarter. EBITDA was slightly positive for the quarter, an improvement of \$3m when compared to the third quarter.

For the year, the segment reported an operating loss of \$10m and negative EBITDA of \$5m.

Garneau added: "2016 was a critical year in our business transformation. We deployed significant capital and increased our leverage to accelerate our transformation towards more sustainable and profitable business segments.

"We are nearing the completion of these capital projects, and we remain confident in our ability to compete in these segments despite unfavourable short-term market dynamics.

In market pulp, market conditions appear more favourable over the next two quarters given recent price increase announcements, but we anticipate the latter part of 2017 to be more challenging."

He said that in 2017, the company's priorities will be the ramp-up of the tissue operations at Calhoun as well as to continue its improvement plan at Atlas.

JAPAN

Daio Paper looking to buy tissue mills from Nisshinbo

Daio Paper has announced it is in talks to take over the tissue production activities of fellow Japanese firm Nisshinbo Holdings.

The latter operates four mills in Japan. Two are located in the Shizuoka prefecture and produce tissue: its Fuji facility is operated by subsidiary Tokai Seishi and is able to produce 28,000tpy, while its Shimada mill produces 40,000tpy.

Internally, Daio is planning on expanding its tissue production with a new 4,500 tonne per month machine at the Kawanoe mill, which is expected to start in October next year. It will be supported by a new processing centre close to Tokyo in the Saitama prefecture.

News from www.risiinfo.com

CHILE

Chilean press reports CMPC, Kimberly-Clark involved in diaper collusion case in Chile

Almost two years after pulp and paper producer CMPC self-reported to the Chilean authorities about coordinated price arrangements carried out between executives of its tissue division and its competitor Pisa, a subsidiary of SCA, between the years 2000 and 2011, the Chilean press reported that CMPC was also involved in a diaper collusion case. The daily La Tercera said that CMPC's self-report sent to the country's competitive practices regulator (Fiscalía Nacional Económica – FNE) in March 2015 mentions that the company also had price arrangements with its competitor Kimberly-Clark involving baby diapers. According to the daily, CMPC's self-report reveals that CMPC Tissue and Kimberly-Clark closed price increase agreements on baby diapers, as well as exchanged information involving price adjustments and coordinated their participation in promotional activities. In a notice to the market published on

INDIA

SCA to discontinue hygiene business in India

SCA is to discontinue its hygiene business in India just four years after entering the market. It reported net sales for the business of SEK 110m in 2015, the majority of which related to baby diapers. It will be discontinued in the first quarter of 2017.

SCA said that "profitability cannot be achieved within a reasonable timeframe". It added the company prioritises growth in selected emerging markets such as China, Southeast Asia, Latin America, Eastern Europe and Russia. Emerging markets accounted for 32% of SCA's net sales in 2015. The total cost of the discontinuation of operations are expected to amount to approximately SEK 350m.

Internally, Daio is planning on expanding its tissue production with a new 4,500 tonne per month machine at the Kawanoe mill, which is expected to start in October next year.

20 December, CMPC stated that the company is not allowed to issue any further comments on this matter as the court defined the records of the material delivered in 2015 as confidential.

"In March 2015 CMPC's board of directors, as soon as it acknowledged the fact that antitrust infringements occurred in Chile, ordered the immediate reporting of those facts to the proper authorities, together with providing them with all the information gathered in the internal investigation, and to provide to those authorities all cooperation required.

"The information reported to the antitrust authorities included all the facts related to antitrust infringements detected in the internal investigation.

"Therefore, all infringements detected were communicated to the authorities in 2015."

News from www.risiinfo.com

Gambini Ad



Above: Grupo Corporativo Papelera's new TM will have a production capacity of 34,000tpy

MEXICO

Grupo Corporativo Papelera boosts capacity with tissue investment

Grupo Corporativo Papelera has invested in a tissue machine for its Mexico-based site.

Supplied by A.Celli, the line will add an additional 34,000 tonnes to the company's annual production.

The machine is 2.6m wide machine and has a speed of 2,000m/min.

It is part of a complete turn-key project that includes the Control & Automation system, as well as the latest-generation hood design and the 16-foot Yankee Dryer.

Grupo Corporativo Papelera is a manufacturer of private label tissue products.

BRAZIL

Suzano's board approves Real 346m loan for tissue projects in Brazil

Suzano's board has approved a Real 346.4 million (\$105.8m) loan with the Brazilian Northeast Bank (Banco do

Nordeste) to be used in the construction of two tissue paper production units in the country – one in Imperatriz, Maranhão state, and another in Mucuri, Bahia state.

According to the company, the loan will be amortised in up to 132 monthly instalments due after a grace period of 48 months.

The interest rate was fixed at 10% per year, due quarterly during the grace period and monthly during the amortization period.

Suzano's total investment in the tissue projects is estimated at Real 425m, including two paper machines, each with capacity to produce 60,000tpy of paper. The equipment will be supplied by Voith. Both Imperatriz and Mucuri tissue machines will produce jumbo rolls to be supplied to toilet paper converters in the northeast region of Brazil.

Production at Imperatriz is expected to begin in the third quarter of 2017 and the Mucuri machine should start operating in the fourth quarter of the same year.

News from www.risiinfo.com

FRANCE

Lucart's French site starts-up PM rebuild

Lucart has started up its PM10 at its Laval sur Vologne mill after a rebuild project undertaken by Toscotec.

The rebuild will boost the machine speed from the current 1,300mpm to 1,600mpm for the production of high-quality tissue from virgin or recycled fibres.

Toscotec's turn-key supply included wire and felt section modifications, a new TT SYD- 12FT, Yankee steam and condensate and a TT MachineBrokePulper-MBP75.

The new TT SYD has replaced the existing cast iron one.

Massimo Pasquini, Lucart Group chief executive, said: "This investment is a strategic step to strengthen our presence in central Europe and is part of our integrated strategy of reducing energy consumption in our paper making process."

Lucart Group is Europe's largest producer of thin MG paper for flexible packaging and is one of the top European manufacturers of paper, airlaid and tissue products.

It produces 300,000tpy with 10 paper machines and 55 converting lines.

Italy – T&T capacity leader in Western Europe



Bill Burns

Senior consultant,
Fisher International

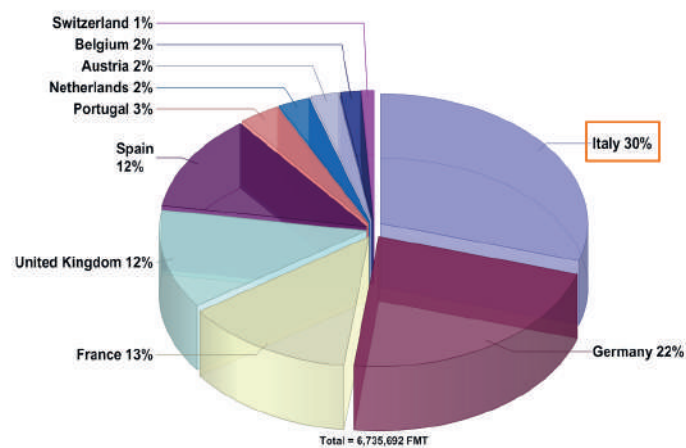
Italy is traditionally a major player in the story of tissue and today remains the capacity leader in the Western European market. Comparisons to competing countries within Italy's natural market provide a good overview of these local market areas. This article has the added twist that it characterises competitiveness across the set of paper machines in Western Europe.

At the close of 2016 there were 204 machines making 6.7+ million metric tonnes of Towel and Tissue (T&T) annually in Western Europe. Italy represents one-third of the machines and makes about 30% of the region's tonnes (Figure 1).

The country has long been the capacity share leader, with its share varying between 27% and 30% (Figure 2) as the region rationalised assets. A look at the other Western European countries hints at some softening across the area but the impact is significantly less than in Italy (Figure 3). Generally, asset rationalisation (closures, upgrades, and expansions) stems from issues with market demand, regulatory pressures, corporate health, and competitiveness. The remainder of this article will look at some of the factors that define the competitiveness of Italy's machines.

At the close of 2016 there were 204 machines making 6.7+ million metric tonnes of Towel and Tissue (T&T) annually in Western Europe. Italy represents one-third of the machines and makes about 30% of the region's tonnes

Italian Share of Western European T&T Capacity

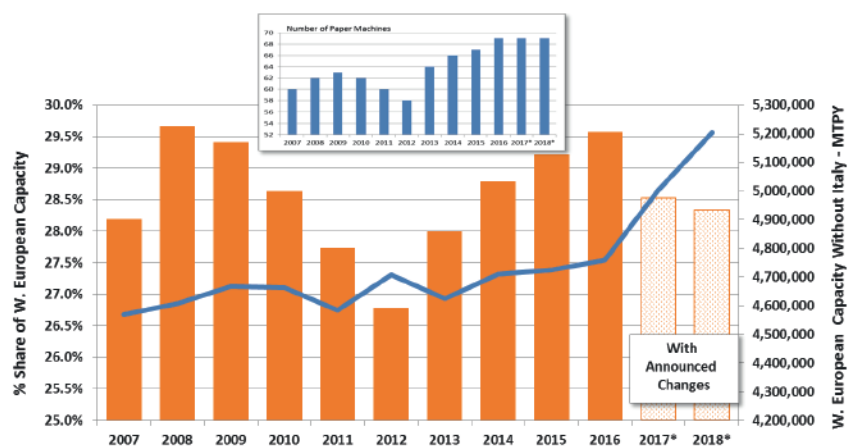


© 2016 Fisher International, Inc.
Source: FisherSolve™



Figure 1: Italian share of Western European T&T capacity.

Italian Share of Western European T&T Capacity Trend Plot



© 2016 Fisher International, Inc.
Source: FisherSolve™



Figure 2: Italian share of Western European T&T capacity trend plot.

Machine speed and trim are two key measures of competitiveness as they determine much of a machine's production capability, assuming an equivalent product. A histogram analysis shows how distribution of machines in Italy compared with the rest of Western Europe changed before and after the Italian share drop off.

The distribution of Italian machines is skewed in 2007 (the "before" benchmark year) and 2016 (the "after" benchmark) with peaks around 1,600 – 1,700mpm (Figure 4). It is clear that speeds are increasing, by existing machines speeding up and/or by older machines being replaced by newer, faster ones.

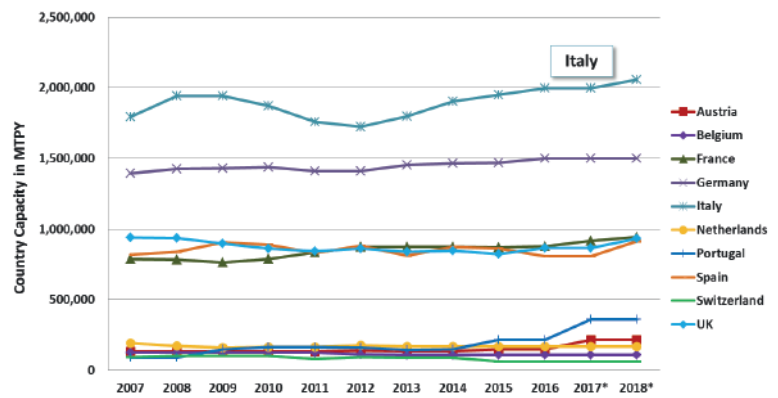
The remainder of Western Europe machines collectively also bias to higher speed and appear to be bimodal in nature. Like Italy, there is a set of machines that peak around 1,600mpm. Unlike Italy, there also appears to be a set of machines that peak in the 2,000mpm range (Figure 5). Both analyses show broad distributions with several machines well off in speed and a few machines well above the speed of others.

The distribution of Italian machines is skewed in 2007 (the "before" benchmark year) and 2016 (the "after" benchmark) with peaks around 1,600 – 1,700mpm (Figure 4). It is clear that speeds are increasing, by existing machines speeding up and/or by older machines being replaced by newer, faster ones.

Results of the histogram analysis on trim are better defined. This is somewhat expected as paper machine trim is driven by physical building considerations and downstream considerations like product configuration and converting equipment investments.

Trim histograms for Italy are bimodal with peaks at 3 and 5.5 metres. Clearly, most machines are in the 3-metre size class with only 10 wider machines present (Figure 6). There is very little difference in the Italian trim distributions going from 2007 to 2016.

Western European T&T Capacity Trend

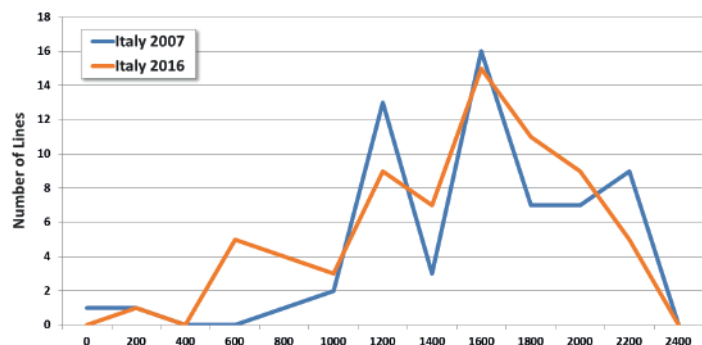


© 2016 Fisher International, Inc.
Source: FisherSolve™

Fisher
INTERNATIONAL

Figure 3: Western European T&T capacity trend.

Speed Distribution – Italian Machines Histogram with Bin Size of 200 mpm

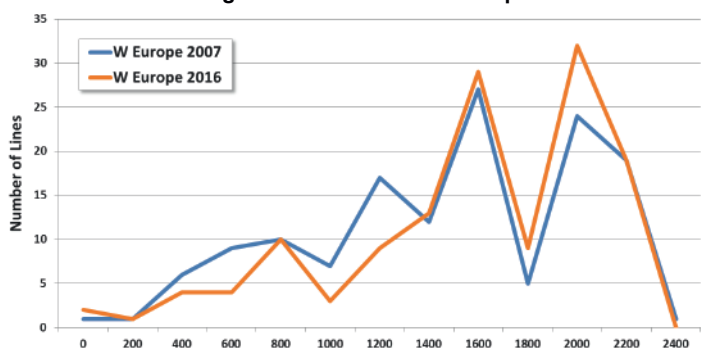


© 2016 Fisher International, Inc.
Source: FisherSolve™

Fisher
INTERNATIONAL

Figure 4: Speed distribution - Italian machines.

Speed Distribution Western European Machines Without Italy Histogram with Bin Size of 200 mpm



© 2016 Fisher International, Inc.
Source: FisherSolve™

Fisher
INTERNATIONAL

Figure 5: Speed distribution - Western European machines without Italy.

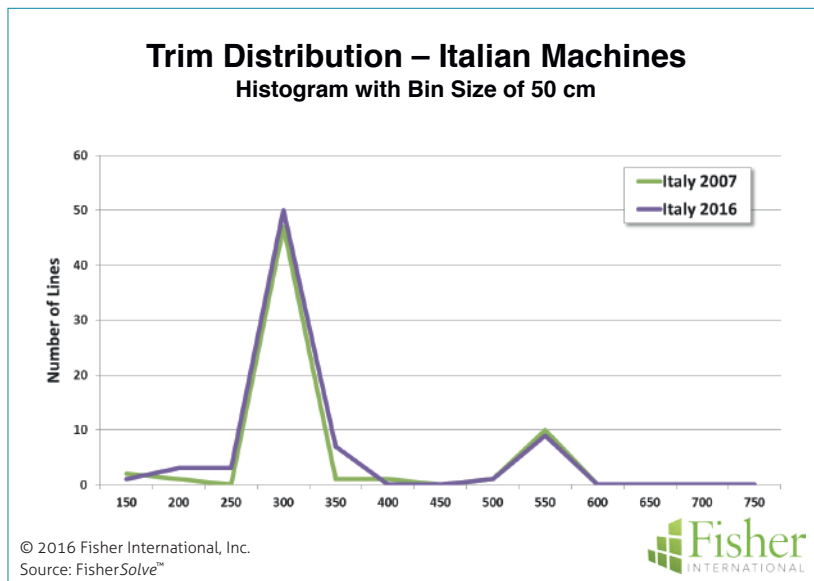


Figure 6: Trim distribution - Italian machines.

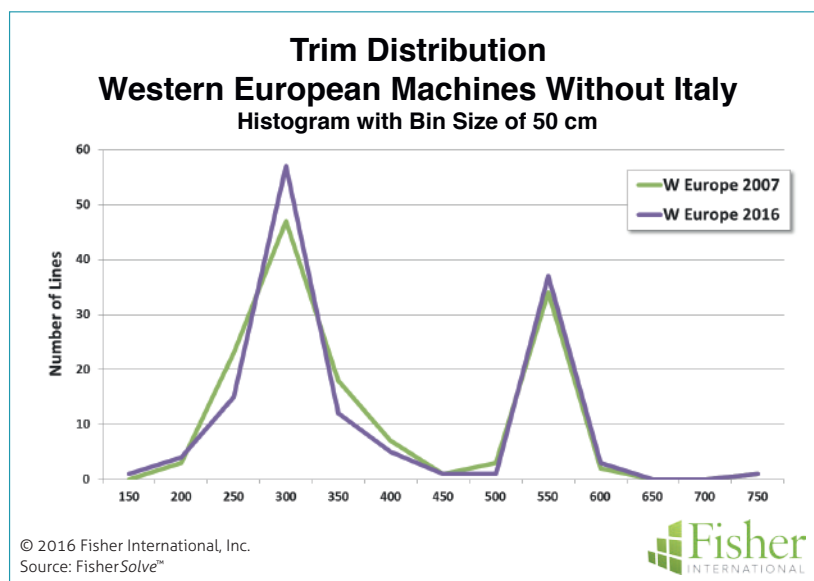


Figure 7: Trim distribution - Western European machines without Italy.

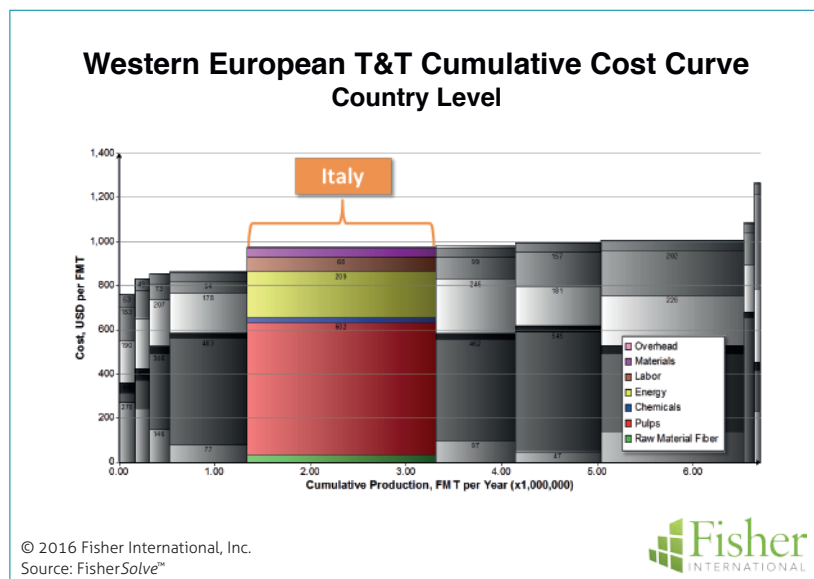


Figure 8: Western European T&T cumulative cost curve (country level).

Western European (without Italy) machines are similarly distributed with the same bimodal shapes but one significant difference. There are considerably more 5.5 metre machines present (Figure 7). As with Italy, there is little change between the two benchmark years.

A competitiveness assessment would not be complete without looking at cost. Country level average cash cost is not very revealing in Western Europe. Most of the tonnage falls in a tight band around \$1,000 FMT (Figure 8). There are some outliers with lower cost thanks to integrated fibre and advantageous labour cost. There are also a few higher cost countries driven by energy and labour costs.

Drilling down to machine level paints a more complete and interesting picture. The range of machine cost is much clearer, ranging from less than \$600 FMT to more than \$1200 FMT (Figure 9).

A competitiveness assessment would not be complete without looking at cost. Country level average cash cost is not very revealing in Western Europe. Most of the tonnage falls in a tight band around \$1,000 FMT (Figure 8). There are some outliers with lower cost thanks to integrated fibre and advantageous labour cost. There are also a few higher cost countries driven by energy and labour costs.

Lower cost machines are in integrated facilities while higher cost machines use purchased fibre and tend to have high labour and/or energy costs.

Using a histogram on machine-level cost and capacity can provide additional insight into Italy's competitiveness in its natural market. Cost histograms show Western European and Italian distribution around \$1000 FMT (Figure 10).

It also indicates that Italy has a tighter distribution than the remainder of Western European machines, suggesting there may be some vulnerable higher cost machines outside Italy. Capacity distributions are also somewhat interesting.



DISCOVER MORE



QUATIS FOR
WRAPPED TISSUE
PRODUCTS



QUALITY INSPECTION MACHINES FOR YOUR EXCELLENCE



DISCOVER MORE



QUATIS FOR
UN-WRAPPED TISSUE
PRODUCTS



DISCOVER MORE



Pulsar Engineering Srl
Headquarter
Via Marino Serenari, 29
I-40013 Castel Maggiore BO - Italy
Tel. +39.051.6323011
Fax +39.051.6323050
info@pulsarengineering.com
www.pulsarengineering.com

Pulsar America Inc.
975 Parkview Rd - Unit 15
Green Bay, WI 54304
Phone +1 (920) 4254078
Fax +1 (920) 221 0076
info@pulsaramerica.com
www.pulsaramerica.com

Western Europe (without Italy) has a bimodal distribution which is consistent with the speed and trims analysis results. Italy is different, showing a skewed distribution with little influence from the 5.5 metre machines (Figure 11). There could be some underutilised upside for these wider Italian machines.

This has been a high-level look at a local T&T market. As one might expect given Italy's market share, it shows the competitiveness of the country's machine base within its Western European market. There also may be some additional market share opportunity by leveraging wider machines, especially on high volume products.

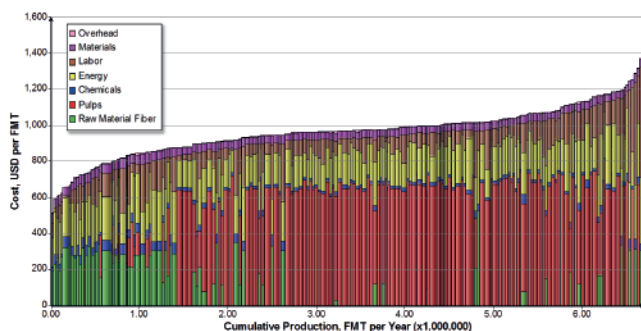
The source for market data and analysis in this article is FisherSolve™.

About Fisher International, Inc.

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

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

Western European T&T Cumulative Cost Curve Machine Level

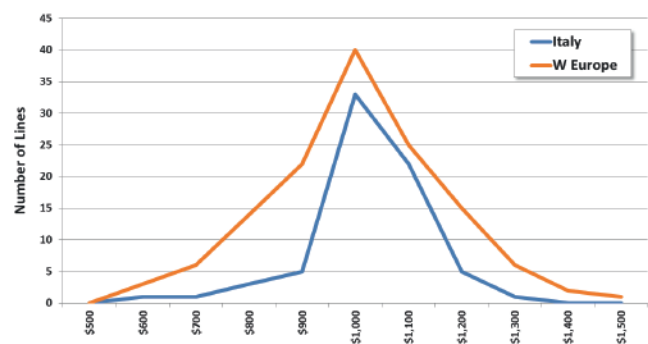


© 2016 Fisher International, Inc.
Source: FisherSolve™



Figure 9: Western European T&T cumulative cost curve (machine level).

Cost Distribution - Italian Machines Histogram with Bin Size of 100 \$/FMT

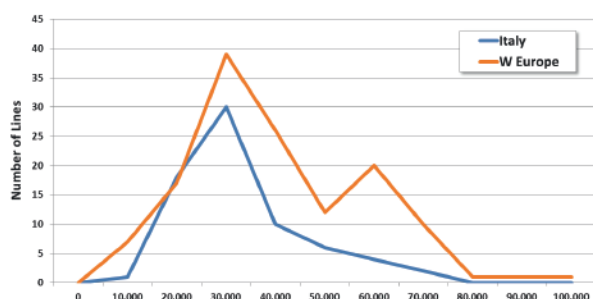


© 2016 Fisher International, Inc.
Source: FisherSolve™



Figure 10: Cost distribution – Italian machines.

Capacity Distribution - Western European Machines Histogram with Bin Size of 10,000 FMT/YR

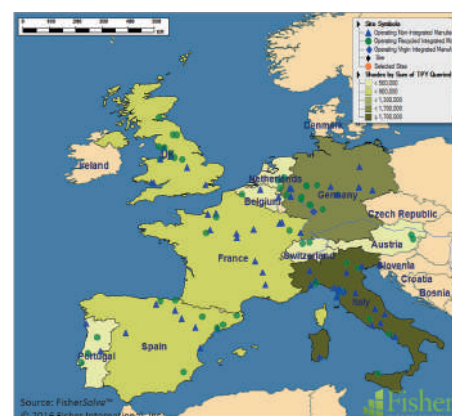


© 2016 Fisher International, Inc.
Source: FisherSolve™



Figure 11: Capacity distribution – Western European machines.

Western European T&T Mill Locations



Map: Western European T&T mill locations.

Italy: Growth in consumer tissue sales hampered by market maturity and sluggish economy

One of the largest economies in Europe and in the world, Italy has gone through a period of significant economic and financial downturn. The country's economy contracted for three years since 2011, while real disposable income of households declined dramatically. In 2015, real GDP rose by only 0.8% and demonstrated a similar trend in 2016. The level of unemployment stood at 11.9% in 2015, with a further marginal drop in 2016. Unemployment levels among the youth are even higher, and female employment rate – at 46.8% in 2015 – remains among the lowest in developed countries. Moreover, Italy will continue to experience difficulties, with projected slow GDP growth and a sluggish rate of increase for disposable incomes in the next five years.

Coupled with a fairly high per capita consumption of consumer tissue in Italy, economic headwinds impact consumer

demand and result in sluggish retail sales growth. At the same time, consumer price sensitivity creates a good platform for growth of private label, which continued to see increases in volume in 2015 and 2016. Price has become of paramount importance for many Italian families on tight budgets, although higher quality value-added features continue to meet the needs of consumers on higher incomes and less affected by the financial hardships.

Slow growth amidst limited unmet potential and economic worries

At nearly 9kg in retail per capita – a Western European average – Italy is a fairly mature retail tissue market. Although the country's estimated unmet potential for retail tissue does leave some room for future volume growth, slow population increases due to declining birth rates and persistent



economic worries pose challenges for industry expansion.

In 2015 consumer tissue volumes grew by less than 1% in 2015, with only a marginal improvement observed in 2016. Furthermore, growth in value terms had fallen behind volume, reflecting a downward pressure on prices stemming from price promotions, the continuing push from private label, and expansion

Western Europe, retail tissue sales, % y-on-y growth, 2010-2021

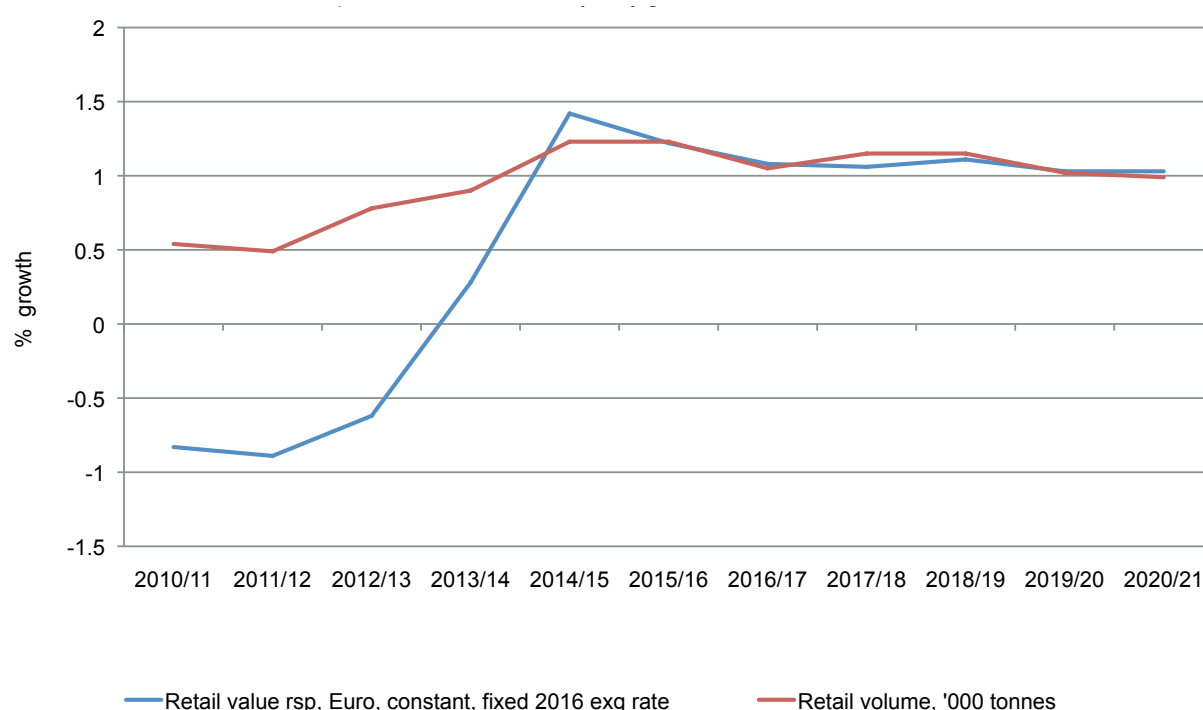


Table 1: Western Europe, retail tissue sales, % y-on-y growth, 2010-2021

of retailer formats like discounters that offer lower prices on a regular basis.

Toilet paper remains the largest product category within consumer tissue in Italy, accounting for almost half of all retail consumer tissue volume in 2016. The category saw a decline in prices, as private label and economy brands were favoured by many consumers. Furthermore, many Italians opted to buy in bulk and moved to larger rolls to save. Despite the challenging times, however, value-added products remained on the agenda, such as Scottex Karité by Kimberly-Clark featuring Karité butter and Tenderly Triple Soft toilet paper by Lucart Group.

Paper towels experienced similar headwinds, with volumes seeing a marginally better performance than retail value. All in all, in 2015 and 2016 paper towels saw less than 1% growth in retail volume sales. Maxi-rolls became more popular with Italians, due to their comparatively low price. Furthermore, brands and private label have been focusing on durable products that promise to last longer, thereby providing a combination of quality, convenience and savings.

Competing with the paper-based towels, however, are products made from nonwoven materials, such as Scottex Duramax and Tutto Pannocarta. An additional value that consumers look for in paper towels is the possibility to use them for surface cleaning, including windows. Improved performance is therefore increasingly sought after, and brands have been introducing and positioning products accordingly to meet this goal.

Facial tissue continued to evolve around design and aesthetics in boxed products and value-added functions in portable pocket handkerchiefs, such as Tenderly Dermo Tre Plus Pure Soft (by Lucart) which contains cotton fibres and honey essence to reduce skin irritation, as well as Tempo Complete Care, Tempo Aromathera and Tempo Cotton Touch by SCA. While value-added features

helped to support higher price points, volume sales were sluggish in 2015 and continued to fare poorly in 2016.

Struggling to regain ground is also paper tableware, declining in both volume and value in 2015 and again in 2016, as Italians cut budgets and used substitutes, such as paper towels, to replace napkins for daily use.

Economic downturn and bargain shopping a win for private label

Economic slump and investments in product development have helped private label to win over more Italians. In 2016, volume share of retail consumer tissue sales stood at 40%, and sales volumes continued to see a positive trajectory. Some of the major retailers, and by extension the key players in private label tissue, include Esselunga, Carrefour, Conad, and Coop.

Share of private label in Italy still falls behind a number of other Western European markets, such as Germany, Spain, France and some others. This leaves room for further potential household penetration of private label in Italy, supported by continuing investments from leading private label manufacturers like Sofidel, in production and innovation as well as by further expansion of grocery discounters, supermarkets and hypermarkets in the coming years – all typically featuring strong private label programmes.

Modest growth ahead amidst price pressures and product polarisation

With GDP playing a role in supporting the demand for consumer tissue, slow pace of economic recovery will continue to impact retail sales unfavourably and industry growth in the short to mid-term. All in all, over 2016-2021 retail sales of consumer tissue in Italy are projected to see a 1% CAGR in volume. With polarisation of consumer demand along income lines, retail tissue in Italy will continue to see further evolution of private label on the one hand and investment into premium branded products on the other. At the same time, the increased assortment of private label products will also temper potential price increases by brand manufacturers, as will the bulk packaging and multipacks that Italian consumers have grown increasingly accustomed to.

With continuing pressure on prices, amidst potential increases in production costs, maintaining profit margins will remain challenging. These tendencies will continue to highlight the need for cost optimisation and cost savings along the supply chain. Additionally, sustainability in manufacturing practices can be used as a feature to differentiate premium-positioned products from economy brands and private label, thereby helping to drive price points to counteract strong promotional pressures.

Western Europe average vs Italy, % private label share, retail volume 2012/2016

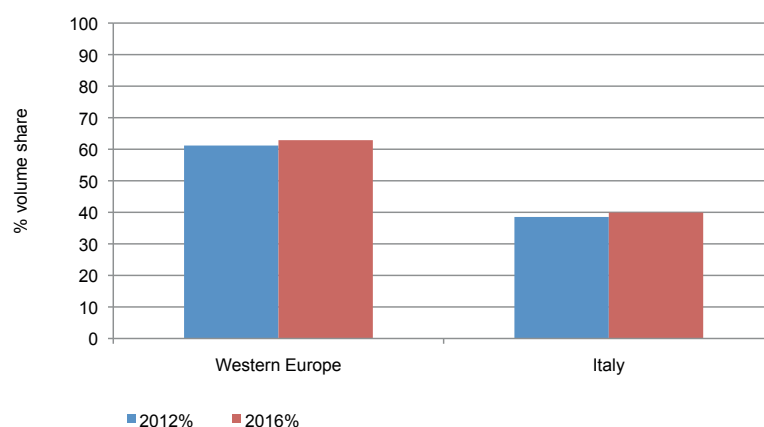


Table 2: Western Europe average vs Italy, % private label share, retail volume 2012/2016

My three-point guide to tissue etiquette

Cheapest: too rough even for the toughest of men. Middle rank: comfortable, quality, full-bodied. Luxury: generally pointless, but essential for a girlfriend's nose.

By Matt from south London, UK



I use toilet paper, kitchen roll and sometimes keep hand tissue packs in my bag to work. I use a lot of kitchen roll mainly because it's so convenient and hygienic and saves on germs breeding on a sponge or cloth.

I generally think luxury tissue products are pretty pointless as middle ranking supermarket branded toilet paper is comfortable, looks full bodied and is generally of pretty good quality. You can also bulk buy 9 or 12 roll packs at a significantly lower price from brand leaders, so I take this into account when I buy these products.

However, on the flip side, cheap tissue is also a false economy if you can afford to buy a slightly better quality product

at the till, but I appreciate every penny counts for so many people. The cheapest toilet paper is fairly coarse and rough even for the toughest of men. The cheap rolls also have less sheets and it looks a lot cheaper also. The shriek across the land of students running out of toilet roll is not just down to purchasing priorities, but the dreaded cheap roll.

I do also think that sometimes it's worthwhile paying extra for a luxury tissue, for example, I think they're best for a girlfriend's nose, they're just so

much more comfortable to use when you're not feeling well. A comfortable tissue at the ready is a real plus in these challenging British winter months.

I am conscious of environmental concerns in other product ranges, but with toilet roll I have not seen green alternatives and they are certainly not high profile when I do my shopping.

I believe that a lot of tissue products are used throughout the UK; it's amazing how when you need some the roof falls in if there is none around.

It's all about image also – a cheap tissue in a restaurant really lowers the impression of the establishment, and again, tissue does not have to be quilted – just decent quality. I just think high-end tissue is not a desirable product, who wants to use a duvet type roll as a toilet roll?! I have noticed cheap end rolls in some less affluent areas overseas and a lot more use of pink rolls which I don't remember seeing in the UK since the 1990s.

A real Trojan horse that has to be avoided is the narrow roll, advertised as "a bonus". There are rolls that you bring home thinking all is well, and then they will not fit over the roll holder bar or if they do they jam and don't move, which is not ideal. It's the motorway service station roll experience only at home, and while it initially appears like a good value buy, it's not actually economical or convenient.

"I generally think luxury tissue products are pretty pointless as middle ranking supermarket branded toilet paper is comfortable, looks full bodied and is generally of pretty good quality. You can also bulk buy 9 or 12 roll packs at a significantly lower price from brand leaders, so I take this into account when I buy these products."



Our
customers
are at the
core of our
organization

www.ipekkagit.com.tr

With over 45 years of tissue making experience, advanced technology and consistent quality; we provide a strong portfolio of finished and semi-finished products. Outstanding service, flexibility and a solution oriented approach are the key drivers of our long partnerships with our customers spanning five continents. **Move your business forward with us!**

TISSUE WORLD
Milan

Come visit us!
10 - 12 April 2017
Fieramilanocity Hall 3
Visit Us at Stand E670!

İPEK KAĞIT

 **Eczacıbaşı**

Converting technology sector in positive mood heading into 2017

Despite a modest 1.5% GDP growth forecast for the EU and a world economy still emerging from a lacklustre 2016, research by TWM sees Italy's major companies expecting strong performances in 2017-18. By Martin Bayliss.

Italy's tissue converting industry suppliers are bullish about prospects for the next couple of years, according to research in January by TWM. They see European demand growth lagging behind the world average but not a single company was negative about 2017-18.

TWM asked companies to rate the outlook for demand growth on a five-point scale from "very good" to "very bad". For European demand growth, opinion was divided roughly 60:40 between "good" and "average", while for the world 12% saw prospects as "very good", with more than 60% "good", and the remaining 25% "average".

On their own performance, companies were even more positive. Nearly 40% said their profit performance in 2016 was "very good", with another 40% "good" and the rest "average".

Half also considered prospects for 2017-18 to be "very good", with a further 40% saying they were "good" and the rest "average".

Given the forecasts for the European economy, the optimism expressed in these responses is perhaps surprising.

After all, the EU is forecasting a very modest 1.5% GDP growth this year, even if it is hoping for improved investment in 2018.

For the world economy, some pick-up from the lacklustre performance of 2016 is expected, according to the IMF. Emerging market and developing

economies should see accelerated growth in 2017-18, it says, but it also warns that "there is a wide dispersion of possible outcomes around the projections, given uncertainty surrounding the policy stance of the incoming US administration and its global ramifications."

In its survey, TWM asked: "Do you expect political instability (e.g. that caused by Brexit, the new administration in the USA, the French elections) to impact your business in 2017?"

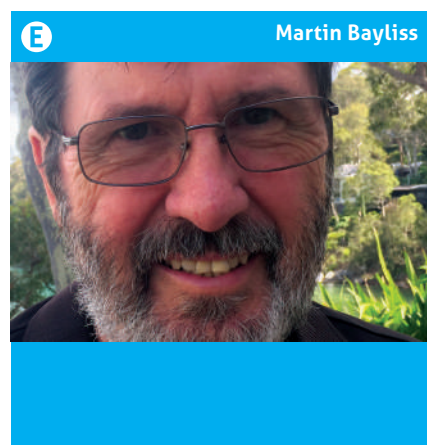
Most respondents appeared unconcerned, saying they did "not expect any particular problems", but there were exceptions.

Carlo Berti, Gambini sales and marketing director, said: "The current situation and the recent changes on the world stage can certainly create uncertainty and preoccupation.

"But we cannot let these early signs of political instability unsettle us. We have a positive approach ... innovation and the economy cannot and must not stop."

Mauro della Santa, TecnoPaper sales director, added: "Political instability does not favour investment and thus clearly has an impact on activity in general," but added that his company aims to encourage investment through cost-effective product innovation.

We also asked: "What are the most important factors affecting your development (positive or negative) in 2017-18?" Several respondents cited



technical innovation as the key driver, and research and development is fundamental.

Futura's corporate director Marco Dell'Osso said: "We continue to invest substantial resources in R&D. Our FuturaLab has created new-to-the-world converting solutions to allow our clients to achieve best integrated performance and solid competitive advantages through technical leadership, finished product innovation and service support."

Fabio Perini Companies' chief sales office Matteo Benedusi stressed the importance not only of innovating but doing so quickly: "We build complete plants and industrial solutions, but our reactivity to technological changes and to product innovations on the roll and on the packaging must be anticipatory compared to the demands of our customers."

Elettric 80 also sees R&D as a critical focus needed to maintain technical leadership. It also emphasises training, "because we consider that the most important capital for a company such as Elettric 80 is the quality and competence of its workforce," said company president Enrico Grassi.

Nearly 40% said their profit performance in 2016 was "very good", with another 40% "good" and the rest "average". Half also considered prospects for 2017-18 to be "very good", with a further 40% saying they were "good" and the rest "average".

Elettric 80's objective is to integrate and totally automate its own systems with customers' production lines and to do so anywhere in the world. Today, Grassi said his company is installing new systems in three continents: Europe, North and South America.

Gambini's Berti also stresses that R&D would "advanced technological innovation aimed at realising flexible high-performance products." And, echoing Grassi, he said: "human capital is a resource of utmost importance to us in achieving our objectives".

The continuous innovation helps ensure there is a steady process of upgrades among the customers for Italy's world-leading converting technology and related products.

Not quite Apple in their consumer appeal, perhaps, but a philosophy of innovation that helps drive the growth that allows better-than-average performance and creates a mood of optimism even in these times of uncertainty.

Converting's track record of innovation

Among Elettric 80's new developments is the SmartStore warehouse system. The racking is equipped with battery operated shuttles on each level carrying a satellite on-board.

As a result each level works independently. E80 has also introduced Elephant LGV, which stocks parent reels up to three levels high.

Since its market launch 18 months ago, Fabio Perini's Constellation rewinder has more than 50 installations across five continents. Matteo Benedusi says: "Thanks to the technology of Constellation today our customers can produce rolls that could never be made using traditional winding technology."

The company is also addressing Industry 4.0 with its "Digital Tissue", and on the service side, Wearable is its remote assistance solution.

Futura's Andromeda technology includes multi-task smart crane which enables the automatic parent reel handling system, embossing roll change

"The continuous innovation helps ensure there is a steady process of upgrades ... It is a philosophy of innovation that helps drive the growth that allows better-than-average performance and creates a mood of optimism even in these times of uncertainty."

and general maintenance. Marco Dell'Osso says: "It's a fully-integrated solution rather than a series of components. This Industry 4.0 approach enables the production of a tissue roll, from raw material to finished, packaged product, to become a single process, connected via the ID of the parent reel."

Gambini is working on new embossing technology aimed at bulk and absorbency, and adding new more flexible and versatile models to its family of TouchMax embossers.

Projects include creating chemical ply-bonding systems that may replace mechanical ones, and developing a new generation of rewinders.

OMT has recently introduced a new system of "active embossing", an optional feature on the MT 4000 napkin line with Evolution packaging solution.

PCMC has launched the multipurpose line Amica Unica, which it claims is "the only line with DoubleGeometryTechnology, for consumer and industrial products, with no compromise solutions".

A free-thinking product line, all in one, for three real products (toilet rolls, kitchen towel and multipurpose rolls). Its Forte product is also in continuous evolution, achieving a finished diameter product up to 240mm.

SDM (smart decision maker) software manages the SmartStore as well as the laser guided vehicles (LGVs). The racking system is completely passive, resulting in low maintenance costs and reliable day in-day out operation.

Each SmartStore system is based on the customer application needs, including capacity, number of simultaneous SKUs, throughput, operational principles and building restrictions.

TecnoPaper is testing a new rewinder to cut narrow strips of core board completely automatically and it is

also developing a new rewinder for lightweight tissue.

Environment – targeting energy consumption and waste

Fabio Perini's Benedusi: "In 2015-16, the internal lighting system of the Lucca facility was completely renewed, and this has yielded measurable results in terms of energy savings, sustainability and the of work of the employees.

The new lighting has drastically reduced environmental impact, preventing the emission of 278 tonnes of CO₂, the equivalent of eliminating 58.8 vehicles from the road for one year, 88.3 tonnes of waste from going into landfills, 135 tonnes of coal burned, 106 hectares of forests saved.

"On the product, the initiatives have instead been on energy and footprint reduction but also on reducing the raw material, such as producing 100% glue-free rolls."

Gambini's Berti: "Minimising our impact on the environment is a challenge we cannot ignore. It is a continuous inspiration for our research and a critical factor in our development of new products and technology.

"Specifically, we place great emphasis on recycling and waste reduction and in our plant we use platforms with built-in energy generation."

OMT points to its glue-free micro-embosser, which – despite the absence of glue – aims to achieve a napkin free of any contamination from added chemicals.

The company claims it is one of a kind and also translates into a 'green', eco-friendly final product that respects the environment while remaining bacteria-free.



"I really believe that success comes with being willing to anticipate market conditions and being unafraid to diversify and invest in new products and services."

Luigi Lazzareschi

Defining the products of the future

Greater efforts to save margins, fearless investment in technological innovation and new products, e-commerce selling, increasing of stakeholder engagement processes, potential double digit growth in the US. Luigi Lazzareschi, chief executive of the Sofidel Group, looks ahead for TWM.

By Helen Morris, Tissue World magazine senior editor

TWM/1: How are the Italian and European economic conditions impacting your business and the tissue market generally in Italy?

"The slow economic recovery and a lack of consumer confidence, which is also related to political uncertainty, have impacted the Italian tissue market, although it still remains on the whole a steady growth market.

"In general terms, over the last years the big retailers have been affected by a decrease of consumption and currently the consumption trends have not yet stabilised. In this context, we have seen the further strengthening of the Italian private-label (PL) segment, whose products are increasingly building their position as "premium" brands. The growth of hard discounters and a much greater effort needed to save margins have been the other two major trends. The recent decrease in value of the Euro against the USD is also impacting our virgin pulp supplying as costs are getting higher."

TWM/2: Are you still seeing much growth in the Italian tissue market? Which sectors in particular have potential to grow further and why?

"The Italian tissue market, like other European markets, is considered a mature market and over the years there has been a production overcapacity. Yet I think that there is still room for growth driven by product and technological innovation. I really believe that success comes with being willing to anticipate market conditions and being unafraid to diversify and invest in new products and services. Consumer needs are constantly changing and our company must lead these changes. This means that we have to work in order to create added-value for all our stakeholders along the entire process of value creation. In other words, we have to de-commoditise the tissue paper products."

TWM/3: What are the main opportunities for Sofidel over the next five years?

"In Europe, our current strategy is to focus on increasing production at our existing sites. Our facilities all have the potential to expand. We are making significant investments in cutting-edge technologies, that include NNT paper machines as well as the Constellation converting equipment and highly-automated finished-product warehouses to allow us to deliver on this vision for organic growth.

"At the same time we are deeply committed to defining the products of the future in order to meet changing consumer demands as well as new standards in sustainability and hygiene. We are also investing in new forms of direct interaction with our end consumers. For example, in Italy we have launched an e-commerce platform, Sofidel Shop (www.sofidelshop.it), where our consumers can directly order their favourite products, take advantage of our subscription supply and have products delivered to their home."

"We have been very satisfied with the Sofidel Suppliers Sustainability Award created to encourage and spread best practice and improvement activity in the area of environmental and social sustainability."

Luigi Lazzareschi

TWM/4: And the main challenges?

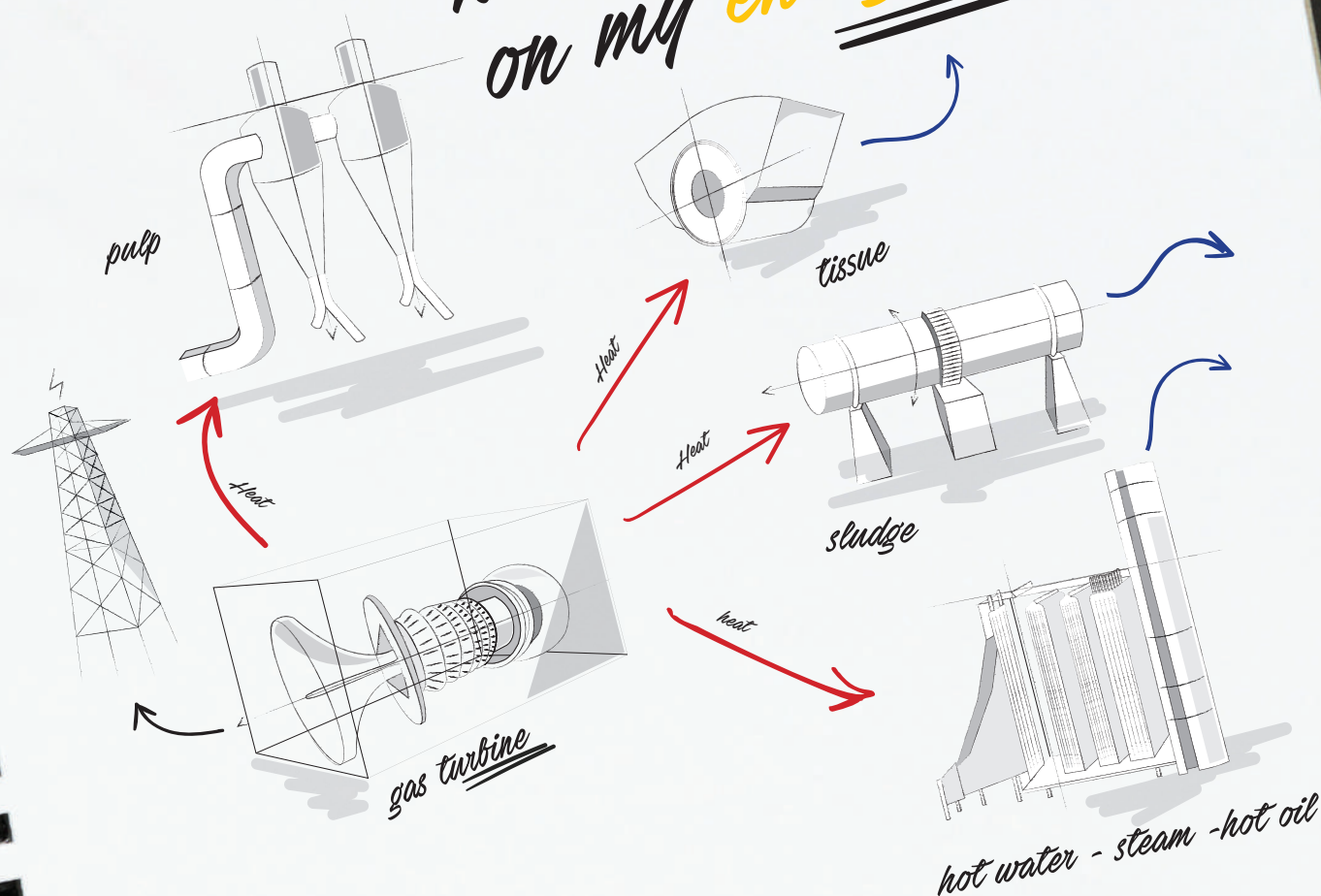
"Being capable to grow as an even more sustainable company which is able to focus on innovation and meet new people's needs, as well as increasingly involving our stakeholder in engagement processes. With regards to this last point, we have been very satisfied with the Sofidel Suppliers Sustainability Award created to encourage and spread best practice and improvement activity in the area of environmental and social sustainability. In its first edition, the award has involved more than 300 of our global suppliers."

TWM/5: How do plans for Sofidel's European tissue business compare with your presence in America, are you looking to grow further here and also in the USA?

"The US market could generate significant growth for Sofidel over the next few years. This is because the PL sector is less well established than in Europe. I think of a single digit growth in Europe and of a double-digit growth in the US. As for Europe, in addition to the organic growth and the implementation of investments in state-of-the-art technologies, we aim also to create added-value for the retailers we work with and to strengthen the positioning of our brands. In particular, we are working to achieve a greater penetration of the Spanish – where we are about to launch the Regina brand – the Polish and the UK markets."

Fisher Advert

how can I save
on my energy costs?



CHEAPER, RELIABLE ENERGY

Cogeneration with gas turbines is the perfect tool to improve your profitability, combining dry heat, steam and power production.

Solar Turbines has unrivalled experience in the tissue and paper industry. Our gas turbine packages offer unmatched advantages: easy installation and integration, maximum reliability and maintenance convenience.

Solar Turbines enables you to meet your growing need for power, efficiency and availability - all while helping to protect our environment.

There has never been a better time to review your energy strategy.

www.solarturbines.com/chp

Phone: +1 619-544-5352 • infocorp@solarturbines.com

Visit us at the show!

Booth E-750

TISSUE WORLD
Milan

Solar® Turbines

A Caterpillar Company

'We are facing a sophistication of demand'

Only in Italy could there be a fibre di latte, one of many pioneering products of fibre experts Lucart at its Diecimo site. In a price war when competition is fierce, balanced expansion and targeted innovation are vital.

We meet at the company's 106,000tpy Diecimo-based tissue site, one of the largest facilities in Europe dedicated to the production and conversion of tissue paper – and Lucart Group's largest site. The impressive mill is a half hour drive north from Lucca and is surrounded by snow-capped mountains, quaint babbling brooks and beautiful historic buildings.

This being the heart of the global tissue industry, the site is also surrounded by factory after factory of the company's many competitors and suppliers.

TWM is greeted by Francesco Pasquini, sales and marketing director for Lucart's professional international markets, and communications manager Tommaso De Luca. In excellent English, Pasquini explains that while the Lucart Group is one of the biggest tissue players in Europe, its strategy is to remain "balanced" in terms of its products.

The company has been the market leader for AfH in Italy, and recent investments and acquisitions have meant its presence is

0

Helen Morris

Senior editor,
Tissue World magazine

In excellent English, Pasquini explains that while the Lucart Group is one of the biggest tissue players in Europe, its strategy is to remain "balanced" in terms of its products. The company has been the market leader for AfH in Italy, and recent investments and acquisitions have meant its presence is now growing across Europe.



Above: Set in the heartland of tissue, Lucart's Diecimo plant is one of the largest in Europe dedicated to the production and conversion of tissue.

With the acquisition of Georgia-Pacific's sites, the company took on its "Tutto" branded products. "Tenderly Carezza di Latte" is also a famous product and uses milk fibres which Pasquini says adds "exceptional softness". The third brand in the consumer market is "Grazie".



now growing across Europe. It acquired Georgia-Pacific's Italian tissue operations in 2012; it strengthened its presence in the Central-Eastern European AfH market with the acquisition of Hungary's independent player Bokk Paper in 2016, and it has opened sales offices in Frankfurt and Barcelona.

The French facility was acquired in 2008 in the eastern part of the country and recently underwent an investment with a Toscotec-rebuilt of PM10, boosting machine speed from 1,300mpm to 1,600mpm for the production of high-quality tissue from virgin or recycled fibres, and further strengthened the company's presence in Central Europe.

The group now has 10 paper machines (one of which is for air-laid paper products) and 55 converting lines across seven production plants, making it a leader in the Italian AfH market as well as a leading producer of recycled tissue products for AfH and consumer markets across Europe. It has a total production capacity of 310,000tpy, producing tissue, MG paper and some 12,000tpy of air-laid products.

Some 29% of its production capacity is for business-to-business, 36% professional and 35% consumer, and its brands include Tenderly, Tutto, Grazie Natural and Smile (consumer), Lucart Professional, Tenderly Professional, Fato and Velo (AfH).

With the acquisition of Georgia-Pacific's sites, the company took on its "Tutto" branded products. "Tenderly Carezza di Latte" is also a famous product and uses milk fibres which Pasquini says adds "exceptional softness".

"We're looking to grow and acquire further if they're consistent with our target market, both in terms of products and geography. We're installing more converting products and seeing production increase, and we're investing in additional converting lines in our Italian, French and Hungarian plants. These act as bridges into those markets."

Francesco Pasquini

The third brand in the consumer market is "Grazie", an environmentally-friendly brand. "We've worked to develop products like these so we have a strong hold in niche markets."

The company works with the main Italian chains to produce private label products and 80% of its production remains for its own brands in AfH. "As a European tissue player, we're not too enormous, but we have a very strong hold on our market sectors and we're also experts in fibres. This is our main point of difference and our strategy with approaching retailers," Pasquini says.

"In tissue, we have one of the widest ranges of products and innovation remains key. Over the years we have worked and experimented with the use of fibres in ways that no one else has done. We offer our customers a range of possibilities, we're flexible. We want to offer something different."





Above: The Diecimo plant's PM7 is one of nine tissue paper machines the group operates across Europe.

The eventful past couple of months look set to continue and further expansion into Europe at large is still on the cards: "We're looking to grow and acquire further if they're consistent with our target market, both in terms of products and geography.

"We're installing more converting products and seeing production increase, and we're investing in additional converting lines in our Italian, French and Hungarian plants. These act as bridges into those markets."

The main focus for the next five years will be to continue to grow at a steady pace: "We will continue targeting the Eastern European market following the acquisition of Bokk Paper last year," Pasquini says. "We were already exporting a lot there before the acquisition as the region has a lot of potential for us - Bokk Paper is a bridge into that market."

While the eastern European marketplace is still a mature market, he adds that it's not as saturated as western Europe. "There's big room for growth. Consumption per head is increasing and people are demanding higher quality tissue products. Demand is very stable there and we are taking advantage of that."

The company is also exporting to the Middle East and Africa, and also as far as South America and Australia, which he adds are interesting markets but not the core of the company's strategy.

While moving into the American tissue market "is a tempting idea... the exchange rate is very good at the moment and it's a very nice market," he says that such a move may only really be considered in the long term.

"In North America, we are exporting parent reels, so we have an eye on the market there. But for now we are focused here, we need to see how things will consolidate in Europe first."

Market changes mean there's lots of competition, as well as opportunities. In the Italian tissue market, the company is seeing more and more requests for cheaper products: "It's a bit tougher to introduce new products at the moment, but we're still growing in consumer and AfH. We are focused on aligning our brands and private label products with market requirements."

This is partly to do with the economic situation, but he says generally that this hasn't hindered the growth in demand for tissue products in Europe:

"The strength of our brand in AfH and consumer tissue, the relationships we have established mean that we don't feel the economic situation.

"Of course, the economy here hasn't been the best this year, but tissue is not cyclical. Tissue needs to be consumed even in crisis times."

"For tissue, growth is a market of volumes, economies of scale are very important. At the moment there's a soft concentration, we don't expect to see great changes in Europe. Growth is important, but it needs to happen so that each company finds their right position. Because the competition is so crazy here, that is vital.

"We focus on leveraging on the point of difference with the product. That's the main opportunity and challenge for us amongst the price war we're seeing.

"We're facing a sophistication of demand, customer needs are more sophisticated so we have many opportunities to respond to that. The challenge is to repeatedly follow that and gain the opportunity. And it's not just a challenge for us, it's a challenge for the whole industry."

Futura Advert

Svecom Advert

By Tissue World senior editor Helen Morris

Searching for distinction in a complex market

When competition is fierce and price discounting dominates, niche, flexibility and targeted response to rapidly changing consumer demands become crucial. TWM visited family owned Industria Cartaria Fenili

During a time when Italy has gone through an extended period of economic and financial downturn, as well as fast changing and challenging tissue market conditions and trends, Industria Cartaria Fenili's market strategy can act as a blueprint for other small-to-medium sized tissue mills facing a similar environment.

In the short to medium term, the country's downturn will continue to pose big challenges for the local tissue market. As with much of Europe, Italy's GDP growth is expected to remain slow. Its rate of increase in disposable incomes is also expected to remain flat and the country at large is faced with a declining birth rate.

Interestingly, despite being one of the world's largest economies and consumers of tissue, Italy registered just 1% increase in consumer tissue volumes in 2015. A potentially crippling price war also continues to dominate the local tissue market.

Such market conditions present many challenges but can also open up opportunities. Innovation through technology, value-



Helen Morris

Senior editor,
Tissue World magazine

added products, sustainability and cost optimisation... Industria Cartaria Fenili has spent the last few years evolving to take full advantage of any opportunities.

The mill is a short drive from Lucca, and TWM meets Bruno Del Ministro, who along with his wife Attilia Veroni founded the mill's parent company Centralcarta in 1990, sales director Emanuele Del Ministro and planning/quality manager Simone Del Ministro at the mill, a short drive from Lucca. Del Ministro has been the owner of Industria Cartaria Fenili since December 2015. Formerly known as Cartiere Fenili, the history of the site is an indicator of how it has been able to successfully realign itself to best face local and international market challenges.



Clockwise from top left: Emanuele Del Ministro, Simone Del Ministro, Attilia Veroni and Bruno Del Ministro

By Tissue World senior editor Helen Morris

The paper mill company was founded in 1972 by brothers Pietro and Alfredo Fenili with the aim to produce and sell tissue paper. Centralcarta converting was founded in 1990 and, seeing a gap in the marketplace, since the very beginning it was concentrated on the food sector and diversified into AfH professional and consumer tissue products. By specialising in this sector, the mill hasn't looked back, and now serves major groups in the industry.

In 2015, Centralcarta made the crucial decision to evolve and invested in a paper machine. For the first time in its 27-year history it became an integrated tissue player, diversifying and opening up its customer base. The investment represents a big step forward by showing commitment to an unsteady Italian tissue market, as well as determination to move onwards past recent events.

Through a translator, Del Ministro explains that becoming an integrated business was vital: "We face a lot of competition here in Italy, so we had to invest to stay in the market. It's also more practical for us than focusing on being a convertor and means we have better access to more customers. The Italian tissue market is at war. We bought this mill 27 years ago to make a specific product, we wanted to diversify into a specific area. We needed to. The tissue market in Europe is full, so our investment meant that we are able to specialise in making a high-quality product as well as the low and medium-quality products. But it's all about price in Italy."

He hopes to have another paper machine in a few years: "We're selling to the big mills and exporting to the whole world. We'd like to start exporting into America... we're exporting around 50% of our annual tonnage at the moment."

In Italy and Europe, the mill targets the professional, AfH, private label and consumer markets, and it is competing with national and international market leaders. It produces hand towel, industrial roll, interfold paper, toilet paper, napkins, domestic paper, kitchen towel and handkerchiefs. Over the years, it has specialised in the production of paper towels, industrial roll and interfold, one, two and three ply paper products. Its professional product range is dedicated to wholesalers and professional operators and offers high quality tissue products for the AfH and Hotel, Restaurants and Catering markets, while its consumer line offers a range of tissue products where quality is made for the mass consumer market.

Some 80% of its 17,000tpy is for its branded products and the remaining 20% is for private label. Centralcarta has gained market shares in the Italian and international tissue paper manufacturers' market with its main branded product ClassEur, which is dedicated to the professional and consumer world of paper products, and also with its private label products.

Being sustainable – to be more environmentally-friendly, but also to operate leaner and improve energy efficiencies, as well as have better access to more customers – is also key. Centralcarta is certified to ISO 9001, highlighting the importance the company has placed on process efficiency, which Del Ministro says means it can "distinguish ourselves in very complex markets" such as the consumer products tissue sector. Centralcarta's products are also Ecolabel-certified, as well as PEFC and FSC-certified, and the company now also supplies certified private label products following customer requests.



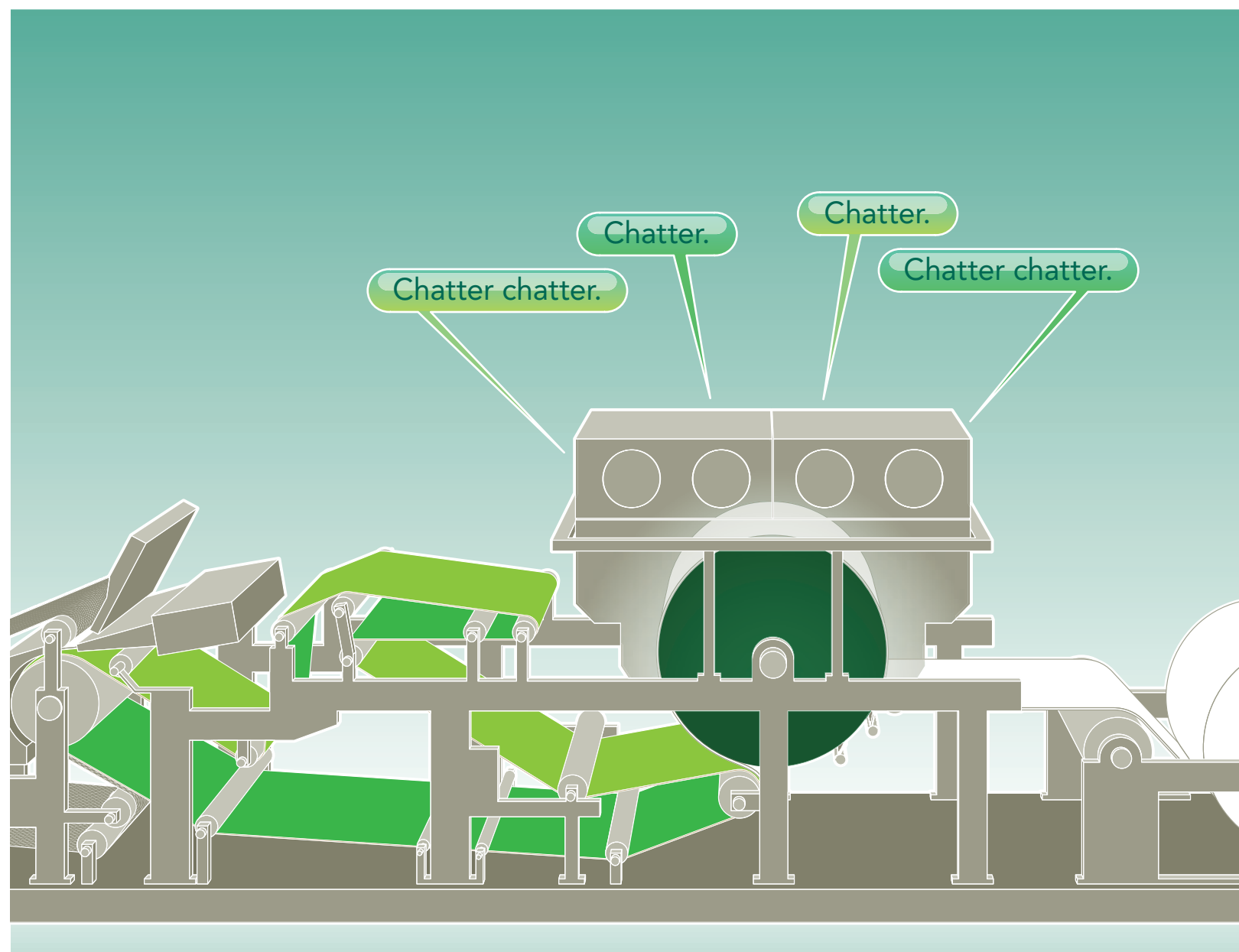
Above: Over the years, the company has specialised in paper towels, industrial roll and interfold, one, two and three ply paper products

Del Ministro adds that there is a branch of Italian consumer that wants high quality products, but tissue consumption trends are changing rapidly: "Even in the past six months, we've seen several big changes in the types of tissue products Italian consumers require. We follow the market, we have to be flexible. Whatever it is that the markets want, we do it."

He concludes that it's not easy to get in the market in the first instance: "It is a war. And unlike some of the other tissue mills, we don't have a commercial task force. Our strategy is to get in because we have the best quality, so our products will be tried and then requested, and so we're in the door. Other mills have certain technologies, but the quality is lower. We have low production of high quality products, that's key for us."

CENTRALCARTA: TIMELINE

- 1972:** Cartiera Fenili is created.
- 1990:** Centralcarta was founded in response to the strong demand for products for the AfH market. Specialising in this sector, the business now services major groups in the industry.
- 2002:** Centralcarta moved into its premises in Altopascio.
- 2008:** The company takes the name of Industria Cartaria Fenili.
- 2014:** Centralcarta acquired a new fully automated production line able to meet the new demands of the AfH market and consumer goods markets.
- 2015:** Centralcarta becomes a vertically integrated company with the acquisition of the Cartiere Fenili paper mill, which became Industria Cartaria Fenili.



What's all the chatter about?

If your conventional hard and thin Yankee coating causes blade chatter, switch to Buckman's Bubond® Yankee adhesive. Bubond Viscoelastic coatings help prevent chatter to protect the Yankee and increase blade life. Bubond adhesives are formulated to improve sheet to Yankee intimacy through the pressure roll nip which results in more efficient heat transfer. As a tissue maker, you can get better drying efficiency, crepe structure, improved softness and better Yankee protection.

Cut the chatter and get down to business.

Contact your Buckman representative or visit buckman.com to learn more.

Buckman

Converting Technical Theme: key innovations in the search for perfection on the converting line

Futura, PCMC, OMET, Fabio Perini, Maflex and MTorres talk to TWM about targeting their latest R&D efforts in response to customer demands. A TWM report.

TWM/1 : What new technical challenges are you facing from customers and how are you responding to their needs?

Giovacchino Giurlani, head of technology and FuturaLab, Futura: "We are very focused on Industry 4.0 or Smart Manufacturing and how it can support technical leadership in converting equipment and produce best integrated performance. We are not only looking at converting in isolation but at the mill of the future, where all processes will communicate with each other.

"It is not so much a question, however, of customers asking us to get better at big data analysis and to design lines which can respond automatically to that data. Rather, this is how we see the future. The challenge is to make it relevant and accessible to the tissue industry.

"Collecting data is nothing new. Data which is fully traceable in terms of time and applicable across entire production chains, and which can trigger actions to optimise the process – this is where we are breaking new ground.

"The challenge is always the same – to produce a better roll more efficiently. We just believe that the way to achieve this depends not only on all the adjustments and refinements that are possible on a converting line, but on gathering data and using that in a smart way to create a self-adjusting line. Industry 4.0 seems like a big idea but in reality it is about the collective power of many small changes to affect significant improvements in Overall Equipment Effectiveness. It is a tool to ensure that we get the best out of our technical innovations."

Sergio Casella, president, PCMC Italia: "A free-thinking approach is our answer to technical development. A few years ago, we started the Matrix concept, an upgradable system able to follow converter needs where the speed and number of cycles can be matched with the utmost flexibility according to the production request. PCMC has launched a multipurpose line: Amica Unica, the only line with DoubleGeometryTechnology, for consumer and industrial products. A free-thinking product line, it's an all in one for three real products. The innovative winding nest allows the production of high quality consumer products and high quality industrial products, tight and soft windings, for a diameter product range from 90 to 350mm. In addition to these innovations, our top-of-the-range FORTE product is in continuous evolution, achieving a finished diameter product up to 240mm."

Marco Calcagni, sales and marketing director, OMET: "For more than 50 years OMET has been leading the tissue converting market, which is now very fragmented: on one hand, there are



Giovacchino Giurlani head of technology and FuturaLab, Futura



Sergio Casella president, PCMC Italia



Marco Calcagni sales and marketing director, OMET



Stefano Di Santo CEO, Fabio Perini



Simone Torrini area sales manager for Latin America and Iberian Peninsula, Maflex



Joseph Gotshall business development director - tissue MTorres America

"Maflex has been the first company to introduce the universal electronic clamp on our log saws. This technology allows savings of many minutes for every single product change."

Simone Torrini

big multinational companies looking for high-performance machinery and production efficiency; on the other hand, there are small companies focusing on specialisation and small runs for niche markets, looking for flexibility and cost saving. We provide the first-class market with high-efficiency fully automatic and remotely controlled solutions to guarantee maximum productivity. For the second category, we offer new flexible lines featuring digital technologies to cope with the need for short runs by providing the possibility to personalise the fold, the embossing pattern and the printed image in a quicker and easier way."

Stefano Di Santo, CEO, Fabio Perini: "Toilet paper is tough to sell, not to produce. For this reason, our customers need to find new ways to promote their products and attain higher margins, rather than buying faster machines. With this goal in mind, Fabio Perini faces the challenge of today's market through visible innovation on the finished product, meaning both the tissue rolls and the packaging."

"If innovation does not carry something visible and immediately recognisable by the consumer, then for us it is not true innovation. This is what we call 'visibly more'. Constellation, launched in June 2015, represents the clearest and most technologically advanced example of this strategic approach. With 50 lines sold in five continents over the first 18 months, Constellation has deeply changed the way tissue rolls are wound, opening a new era for the worldwide industry."

Simone Torrini, area sales manager for Latin America and Iberian Peninsula, Maflex: "Time, our customers ask us for more time to work and we are working to support them finding it. Having achieved top level goals in terms of technics, reliability and flexibility, we are actually focusing on reducing the downtime in changing products, as a way for our customers to gain more time. Maflex has been the first company to introduce the universal electronic clamp on our log saws. This technology allows savings of many minutes for every single product change. From that point, it has begun a continuous challenge to make every single Maflex machinery "smart".

Joseph Gotshall, business development director – tissue, MTorres America: "Current challenges are to be able to utilise larger parent reels, at higher speeds, on a more fragile web with greater needs for precise tension control due to increasingly out of round reels and near perfect efficiency on splicing with minimal operator intervention for reel changes. We address these demands by constantly pushing our designs to handle the demands that the elite converters will require two to three years from now. Automation is the key, and the technology that keeps MTorres exceeding our clients' technical demand is 40 years of R&D investment into being the world leader in complex web handling."

TWM/2: What latest automation features are improving productive efficiency? Do you have any recent case study examples?

Giurlani: "One of the most game-changing features of the Andromeda converting line is the multi-task smart crane, designed by Futura, which enables the automatic parent reel handling system, embossing roll change and general maintenance. This offers considerable benefits in terms of safety, process runnability and continuity."

"Automation features which tackle quality issues are also incredibly valuable in the quest of optimum Overall Equipment Effectiveness. As we know, bad quality can cause problems in many downstream processes. But if we can acquire all the data to show us when working conditions are aligned to the standards we set, and when they are not, we can go a long way to eliminating off-standard production."

"Holes are the perfect example. A camera on the pope reeler on the tissue machine records the size, location and timing of holes in the web. This enables us to know exactly when and where a hole will pass through a specific part of the converting line. We can analyse the effect of the hole and learn how to manage it."

"By automatically slowing down the converting line for a window of time determined through recorded experience, we can avoid the far more serious disruption of a break, and even reject a specific log or logs and thereby avoid quality issues further down the line. This is critical to our way of thinking: data triggers automatic action."

"One of the most game-changing features of the Andromeda converting line is the multi-task smart crane, designed by Futura, which enables the automatic parent reel handling system, embossing roll change and general maintenance. This offers considerable benefits in terms of safety, process runnability and continuity."

Giovacchino Giurlani

Casella: "The competitive advantage lies within a comprehensive view, not limited to a single line. Interchangeable and upgradable systems to be shared in the entire plant for a sound investment, in order to save additional costs. This is the reason why PCMC has developed an intelligent system ARCO, Automatic Rolls Change Over, for the managing the rolls changeover from outside the protection guards, in a total safety condition for the operator. In addition to the two rolls already installed in the embosser, the system is equipped with a vertical warehouse, positioned downstream of the embosser, for the storage of three additional steel rolls, and thanks to an external carriage system you can add even more steel rolls and reduce the number of rolls required in a mill. The ARCO carriage system encourages proper maintenance and cleaning of the embossing rolls before the changeover, thus maintaining the

line running, without adding any stops and positively changing the life of the complete mill."

Calcagni: "Our latest innovation is the TV840 XP, a high-performance machine for the production of napkins with servo-motorised adjustment system and integrated visual-controls, which have radically increased the efficiency of the line."

"The first TV840 XP was recently installed at one of the biggest Italian converters which has showed great satisfaction for the productive results."

Di Santo: "Fabio Perini is the only player in the industry capable of delivering truly integrated solutions of converting and packaging, and for this reason our customers can fully exploit their potential through the most efficient line management system available in the industry: All In One."

"All In One is a revolutionary solution that allows a customer to maximise line efficiency and grant the full availability of the production chain instantly."

"Through a user-friendly interface, the speed of each individual machine in the line is optimised in real time and automatically, even during product, parent reel or poly change. Today the product portfolio of paper producers is constantly increasing, leading to a much more frequent product changeover in the line; All In One reduces downtime to the limit, maximising productivity in real time, even during the night shift where usually less skilled operators are available for sensitive line operations."

"For Customer Service, MIAC 2016 saw the unveiling of a blockbuster product that has quickly reached a global popularity: the Weareable helmet, which gives the opportunity to our technicians to make real time remote interventions on our lines, simply guiding our customers' operators in a very intuitive, effective and hands-free way."

Torrini: "We have been designing increased finished product specification ranges with our push-button/tool-less change overs. This allows our customers to save time when making large scale changeovers. This also allows the operators to change the machines over quickly, without the need for maintenance and changeover crews."

Gotshall: "Increased splicing speeds and zero lost time for reel changes greatly increases the overall operating efficiency of a line. Through our recent automation projects we have collected data from numerous case studies as to how these efficiency increases are turned directly into profits. These line efficiencies along with reduced operating costs from less operator involvement and reduced web waste has been used to establish the algorithms that are bundled into www.mtorrespayback.com."

"Today's biggest challenge is represented by the Industry 4.0 revolution, which goes way beyond the tissue market borders. This is a true changeover for the industry, that we have decided to face with our vision, that we like to call 'Digital Tissue'."

Stefano Di Santo

Casella: "2016 was an important year for PCMC: we sold 24 lines, in October we inaugurated our new and bigger plants with a capability of 36 lines per year, and our customers have renewed their trust in us with repeated orders."

Calcagni: "According to our experience, we did not notice any changing event able to drastically influence tissue market trends. We noticed an increasing interest coming from emerging markets and a strong desire of renewal and modernisation in traditional mature markets due to technology evolution propelled by the concept of Industry 4.0."

Di Santo: "Today's biggest challenge is represented by the Industry 4.0 revolution, which goes way beyond the tissue market borders. This is a true changeover for the industry, that we have decided to face with our vision, that we like to call 'Digital Tissue'."

"It contains for example the latest innovations such as All In One and Weareable: concrete products already available for tangible answers to converting, packaging and service needs."

Torrini: "The global trend of tissue converting industry is generally improving. Our business at Maflex has been growing increasingly during last year. It was possible in part because of the general trend of the sector, but the biggest part of credits comes from the great job done by our R&D office and from all the staff."

"We note that every single region has its own trends, and so events happening in Brazil do not affect Japan as much as they affect Argentina. There is a global trend, but the market is constantly moving and customers keep their eyes open. When they buy a new converting line they are looking for something extremely flexible, they want something able to adapt to the market changing."

Gotshall: "There has been a continued demand for more automation which has increased our orders. In an effort to stay ahead of market demands we have increased our production facilities and increased our capacity. We never want to have to turn away business so we are making every effort to grow ahead of the demands so that we can play a larger part in growing the global tissue industry."

TWM/3: How the changing events of 2016 impacted your business and the global tissue converting industry generally?

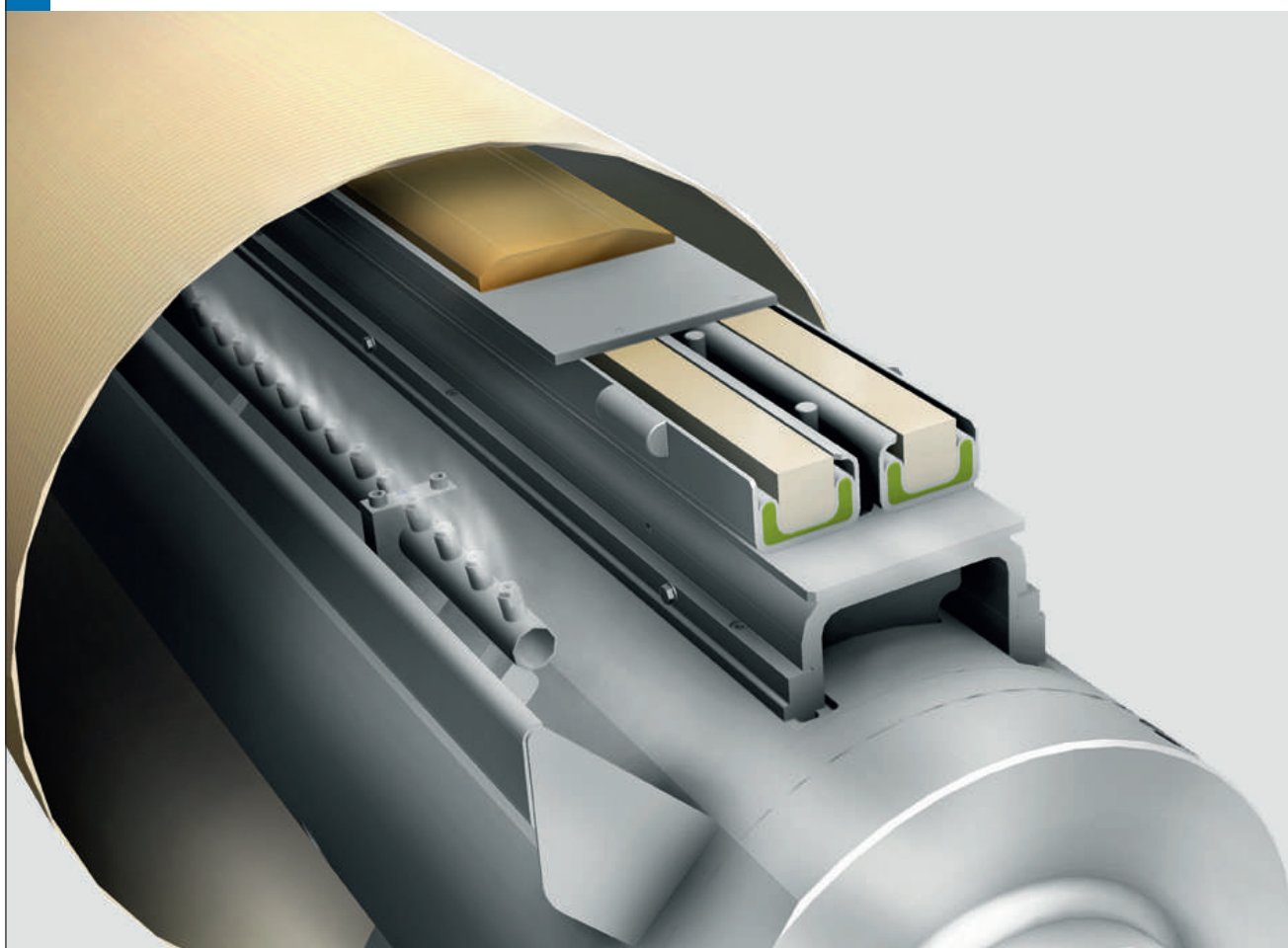
Giurlani: "We're not complacent, but 2016 represented Futura's strongest 12-month period to date from a growth and market share point of view."

TWM/4: What new ways are you ensuring that the quality of cut is consistent?

Giurlani: "Trim minimisation and elimination is the key to maximising output and quality, as well as avoiding downstream problems caused by trim. With this in mind, Futura's UTILITY

PrimePress XT Evo

The newest evolution in shoe presses



The *PrimePress XT Evo* is the latest development in shoe press technology, boosting tissue production and drying efficiency. The new ANDRITZ shoe press gently dewateres the web, but still achieves a far higher

post-press dryness than conventional presses. Due to the new energy-efficient press design, improved dewatering and reduced need for thermal drying, the *PrimePress XT Evo* achieves significant savings in energy.

Alternatively, a noticeable increase in capacity can be achieved. For further information, please contact: tissue@andritz.com



www.andritz.com

We accept the challenge!

Sofidel Sofa Ad

cutting system, which keeps trip width down to 15mm and eliminates the trim from the process with 100 percent reliability, is very important. It also provides the best quality cut in the market, and the potential for one extra roll per log – that is a lot of extra tissue when aggregated over a year.

"When it comes to professional, or AfH, tissue, then Futura's JANUS with its double-bevel, vertical cutting blade offers that vital combination of high throughput and quality.

"Our latest innovation, which is available on Andromeda converting lines, enables operators to assess the sharpness of the roll cutting system blades and their bevel, which of course have a great impact on the efficiency of the process and the quality of the product. If we know the sharpness and bevel at any particular moment, we can determine its impact and use that knowledge to predict and therefore prevent problems."

Casella: "The continuous control of the grinding wheel is the recent technology designed to improve the cutting phase. In the digital era, different systems interact and PCMC has installed sensors to a control unit in WI-FI mode, therefore without using any connection on the mechanical arm in order to increase the machine reliability and repeatability, checking the actual working time and reducing the maintenance interventions drastically.

Calcagni: "We developed a cutting system with belt knife for napkins which allows for control of the speed of the cut itself. It can be used with material with top performances such as tissue, nonwoven, air-laid, etc. This cutting system is equipped with a knife cleaning system which avoids any kind of residue impurities during the cutting phase of napkin production."

Di Santo: "We are convinced that every aspect of the process is crucial for the delivery of the best quality on the finished product; this means once again "visibly more". We insure the best quality in the log cut through our patented log saw solution with double sharpening device. Operators' safety is for us of paramount importance, especially in a potentially dangerous environment like a log saw blade. For this reason we have solutions that increase the level of safety and comfort in the working areas."

Torrini: "It's really hard to improve the quality of cut for Maflex as today we are at the top level. In 2016, we improved our new Hesperia 4 Channels Log Saw on which we put a new universal electronic clamp. This technology permits to change the diameter by simply pressing a button. Customers don't have to lose time in changing the clamps. Moreover, the new Hesperia 4C allows to cut logs diameter from 90mm up to 200mm. In many markets that has become the new standard."

Gotshall: "Cutting requires a precise web and our tension control technology delivers the most consistent web surface in the industry. Therefore - cutting, embossing, calendaring, printing, perforating, rewinding or any other surface interaction can be performed with greater precision. Now since this question most likely eludes to cutting consistency of logs into finished rolls I will state that MTorres is researching how cutting technologies used in the carbon fibre and composite materials industries might soon be applied to the fragile webs of tissue and non-wovens. More coming on that soon."

TWM/5: What forecasts do you have for new technical converting trends around the world in 2017 and beyond?

Giurlani: "The market is not on the verge of revolution. There is a perfect roll for each market, but no such thing as a roll with universal appeal. Converting in 2017 and beyond will embrace advances in data capture but, above all, it will use that information to create self-regulating technology to make each market's perfect roll with less waste and greater consistency."

Casella: "2017 will be another crucial year for PCMC and for the launching of new technologies, but due to the high innovative level of our development we would rather not to answer this question further."

Calcagni: "We think that 2017 is going to be a year of growth for the tissue and converting markets since we have been noticing an increasing request of new installations and new technologies. All companies are looking for innovative products, both in terms of machineries and final products."

Di Santo: "We have identified the integrated solution supply as the best approach for the future while taking into account that Constellation is proving more and more to represent the new industry standard for converting. Industry 4.0 solutions are now available on the market, and more evolution will follow, especially for the possibility to customise smaller and smaller production lots in order to supply different supermarkets and different areas.

"This is the case of 360° Impact, that as a world premiere gives the chance to brand the six sides of a pack."

Torrini: "It is not easy to have a global vision, which makes it difficult to give a global forecast. Consumers will use more paper every year. Many new small paper converting companies are appearing and they are entering a small but niche market. Probably some of them will become bigger and bigger during the next few years. Big groups are already monitoring that but I believe that there will be room for everyone. Every paper converting company will find its own place in the market."

Gotshall: "Speed and size of reels will continue to increase. Webs will continue to debulk and become more fragile. We are handling webs of 7 grams per square metre which can appear to be more air than fibre. Machines are in demand that can do more precise work at higher speeds with greater consistency. This leads directly to increase industrial automation, which is our life's works.

"Tissue converting clients are going to continue demanding greater efficiency and flexibility from their converting assets. MTorres is always addressing these diverse needs by designing modularity into our solutions while thinking forward about how these modules must be scaled in order to suit the customers' future needs."

Sodra Ad



The Leading Edge in Enzymes™

EDT is the right partner for you to explore how the science of enzymology can best benefit your business. For its nearly 25-year history, EDT has focused exclusively on enzymatic applications in pulp & paper, tracking and leading this fast-growing science, and developing more than a dozen different paper industry applications. This unique focus has been helpful to our customers in many ways.

Contact EDT to see how using break-through enzymatic treatments can make your fibers better, your runnability better, and your cost position better, resulting in a superior final tissue product and business performance.

**Let us tailor
value strategies and
treatments for you.**

**MORE
BETTER
LESS COSTLY
TONS**

EDT's award-winning approach to creating tailored enzymatic treatments based on mill-specific goals has provided EDT's customers with exciting, valuable benefits.

Enzyнк®

deinking treatments provide the tissue industry benefits in brightness, dirt count, stickies control, fiber yield, energy reduction and enhanced softness of recycled sheets.

Refinase®

fiber modification treatments create fundamentally new fibers for your mill, whether virgin or recycled, that are more refinable, drain better, run and convert better, and form stronger — and yes — bulkier and softer sheets. Whether to use less costly fiber or less of it, to produce more tons per day, or make tissue with 15% less total energy, your mill should explore what this program can provide.

Repulpase®

products are crafted to achieve quicker and fuller defiberization of your wet-strength fiber sources, whether virgin broke or recycled white or brown fibers. Using safe, pH-neutral enzymatic treatments to debottleneck your process, increase fiber yield and lower your furnish costs is a smart way to run.

*We look forward to
your call!*

www.edt-enzymes.com | ask@edt-enzymes.com | +1 (678) 735-3500

Enzymatic Deinking Technologies, LLC
3975 Steve Reynolds Boulevard
Norcross, Georgia 30093 USA

Enzymatic Deinking Technologies, BV
Postbus 36
NL-2040 AA Zandvoort

Distribution Special Feature

Adapting to every request for end of line or the automatic conveying system: TWM hears from OCME on its latest offerings. A TWM report.

OCME is always on the lookout to respond to every-changing customer demand and evolve with quick changing market conditions. We started doing business in the tissue industry in the 1980's by launching traditional palletisers and have since diversified and launched robots in our end of line.

These help our customers to reach higher speeds with increased flexibility. Our ability to evolve to market conditions didn't stop there, and with our now world-wide presence, there are five key segments that we offer:

- OCME's end of line solutions achieve 99% efficiency and thanks to the latest technology components our machines can reach the highest speed available on the market. These products are highly flexible: our whole range is modular in order to perfectly fit any plant.
- We manufacture automatic Laser Guided Vehicles (LGV) and these vehicles can handle finished products on pallet, raw material and mother reels, all of which are managed by a master supervisor. Thanks to the latest generation Warehouse Management System, OCME LGV's circulate in the warehouse to convey the products in the safest possible way. Safety is a top priority.
- Our products are renowned for their ability to perform in the long term with the same level of efficiency.
- All machines are driven by the latest generation of components in order to increase their performance and efficiency whilst reducing their energy consumption. OCME Palletising Islands for example use class I3 servo motors with plug & play configurations,

allowing all the moving parts to retrieve energy from the gravity force. The LGV vehicles use Kinetics Energy Recovery Systems to recharge their batteries and the whole system is controlled by a dedicated software able to manage the production phase (consumption, product control, alarms, etc), as well as the future new formats and eventual alterations.

- Our service department follows the equipment functioning process during the whole production cycle. After sales support aims to protect and maintain our machine performance in the longer term. We also offer the "Maintenance Contract package", a complete offer including spare parts, diagnostic visits and on-site interventions planning. The 24/7 service (with remote assistance) covers all parts of the world thanks to our international technician's network. All our equipment is connected to the OCME Service Centre: the Training Centre as well as the Upgrade Department guide the customer to help him reach highest productivity.

OCME is able to adapt to every request for the end of line or the automatic conveying system, whether it's for finished products or raw material. Following market requests which are oriented to the final consumer, we translate B2B needs and prioritises technology and easy maintenance. We offer high efficiency and high speed products, and also guarantee complete reliability during the operation.

This article was written for Tissue World magazine by Marcello Lusardi, sales regional manager, OCME



OCME is able to adapt to every request for the end of line or the automatic conveying system, whether it's for finished products or raw material.

We need greater speed on the production floor... and we need it now

The smart robotics revolution is underway to meet the rapid pace of change in the feminine, adult and baby care products markets. As E-commerce and other market trends demand an increased range of packaging and case sizes, JMP Automation discusses helping factories face this challenge. A TWM report.

The upstream area of a tissue plant sees very high speeds within an automated process. Where JMP come into action is when this is not the case for the downstream equipment, which in many plants still requires numerous people to not only keep up with the pace set by the machines but also to adapt to the requirements from the retailer. The JMP systems enable factories to achieve the latest in assembly, packaging, palletising through to warehouse operations.

Within the tissue industry, there is a massive demand in implementing flexible manufacturing solutions to help them thrive in the arena-of-change to combat the rise in consumer brands and product/case formats.

In the primary and secondary packaging areas, the tissue industry is in a state of high demand for technology to help the operations handle the changes in production stock keeping unit (SKUs).

Looking at wet wipe, baby, adult through to femcare products, the demands for these products are on the rise globally which in turn is driving the need for packaging capacity and configurability to keep up with the pace.

Throw in the changes from E-commerce, speciality markets and club stores alike and this suddenly makes for a proliferation of customer choices that are propelling changes on the production floor in the factories as never seen before.

As an example, today there are hundreds of choices and pack sizes available for many of these products. This is where Smart Robotic Case Packaging technology has come to save the day.

These smart systems are designed to allow factories to keep up more than ever before with a wide variety of

products given their ability to change-over, remain hyper flexible, fast and reliable, and packaging different sized cases with different stacking formations that all can be accomplished readily.

Robotic systems pick up items with speciality end of arm tools that are programmed to change to another style for a different size product within seconds.

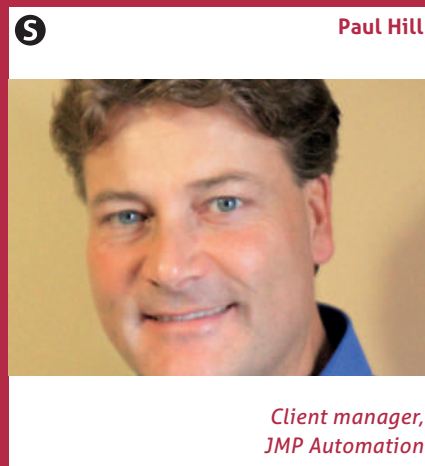
At the end of the production lines, Smart Robotic palletising systems allow all the case SKUs and pallet patterns to be pre-programmed to stack automatically and then feed to automatic stretch wrapping and pallet handling systems to be ready for shipping.

A recent tissue project undertaken by JMP Smart Robotics and Automation

In the picture is an example of JMP Smart Robotics' installed in a tissue factory as part of an improvement project to incorporate a flexible robotic case packer that is able to load up to 150 packages per minute on three shifts per day.

The system has automatic change-over features to accommodate different product sizes, case sizes. Each with different loading orientations, which can also be changed automatically.

Without the flexibility of JMP Smart robotics technology and automation, many of the production changes and



Client manager,
JMP Automation

variety packs could never have been accomplished as economically as they can today.

In the manufacturing world, the factory lines are quickly becoming obsolete and the operations must implement advanced flexible technology with quick change over technology at every stage of the production and packaging process.

From the factory floor through to the production lines and warehouses, production teams must adopt new smart robotics and automation technologies to improve how products are packaged and distributed.

The battle of manufacturing efficiency can now be fully realised more than any other time in history as North American chief executives cast a vision within their operations to embrace these new technologies to compete.

Within the tissue industry, there is a massive demand in implementing flexible manufacturing solutions to help them thrive in the arena-of-change to combat the rise in consumer brands and product/case formats.



Kennedy
INTEGRATED HYGIENE SOLUTIONS



The POD.

Environmentally responsible paper dispensing.

Thanks to its clever and easy-to-use reserve roll mechanism, the POD can reduce your impact on the environment by preventing paper wastage.

Contact us for specific paper roll requirements or to create proprietary systems.



www.kennedy-hygiene.com
paper@kennedy-hygiene.com

 www.youtube.com/kennedyhygiene  www.linkedin.com/company/kennedy-hygiene

JMP Smart Robotics technologies have been improving to keep up with the complexities being demanded by the tissue sector and other CPG industries. Over the next few years, the industry will continue to witness and experience this revolution in how things are made.

The tissue industry in North America is in the middle of substantial technological advancements and is experiencing an increase in demand for products and package configurations.

From the manufactures to the retail level, all of the supply chain, to all of the third parties in-between, no-one is escaping the changes that are taking place. Previous methods of product and project development are being overturned.

"Innovation" once the buzz-word is now the new-norm, with team leaders looking to increase flexibility of equipment through the application in the very latest in smart robotics and automation tools.

JMP is helping Fortune 100 leading CPG Manufacturers with innovative packaging and production equipment to allow the company to compete and not be left behind.

Working with operations to implement these new programmes and improvements for their business, we hear of the reality and threats that manufacturers must face in an effort to not becoming a thing of the past if they do not engage in implementing the latest technologies.

Fully automatic quick change-overs without human intervention along with reduced handling "by-hand" is all driving this new-norm. Overall the consumer product ecosphere is being completely reshaped throughout the world.

JMP Smart Robotics technologies have been improving to keep up with the complexities being demanded by the tissue sector and other CPG industries. Over the next few years, the industry will continue to witness and experience this revolution in how things are made.

As these technologies enable processors to deal efficiently with the flexibility needed to cope with SKUs proliferation, and as the ROI is fast, many large players are increasingly looking to improve their packaging and palletising operations.

This article was written for TWM by Paul Hill, client manager, JMP Automation

Tissue EU Ecolabel: its current success is the best proof that the scheme works and should not be abolished

The tissue industry was stunned in November 2016 to hear that the EU College of Commissioners was considering not renewing three Ecolabels, including one of the most successful – the Ecolabel for tissue.

This Ecolabel is a credible way for the tissue industry and those associated with it to show environmental excellence.

Objections have been raised to the College of Commissioners' proposal, not only by industry, but by the environmental and consumer NGO's as well as the retail trade. In December 2016, representatives for European paper manufacturers, retailers and wholesalers, consumer organisations and environmental NGOs, wrote to the European Commission concerning the possible discontinuation of EU Ecolabel product groups.

Concerns have also been raised in the Council of Ministers, however to date there has been no movement on the proposal.

The tissue ecolabel is due for renewal next year. JRC, the body working on the update for tissue, indicated that as there is no clear path ahead, but following a political orientation not to renew the tissue ecolabel, it has stopped work on this category.

They have indicated that if the situation changes they will restart the work on the ecolabel for tissue.

Many of the stakeholders wrote to the commission asking for the proposal to be reconsidered. In its response, the

Commission made no further comment apart from the information that already had been given:

"On 25 October 2016, the College of Commissioners decided that the voluntary Ecolabel would not be extended after it expires for certain products where there has been limited interest from business and industry.

"The College also decided that for certain other products, for which the Ecolabel expires in 2017-2018, a decision on the prolongation, review or withdrawal of the Ecolabel will be taken on the basis of the Regulatory Fitness and Performance Programme (REFIT) exercise.

"The results of this Regulatory Fitness Check are expected to be presented in the first half of 2017".

It is important to note that no further action by the Commission will automatically end the tissue ecolabel on the 31 December 2018.

As these proposals should be evidence based, there have been requests to see the evidence supporting the plan and to make the process transparent. So far, we have not had a response to a number of requests.

Industry has asked for the relevant minutes of the meeting where the proposal was announced. The minutes were received, but the crucial section explaining the thinking behind the Commission's plan was redacted.

The exclusion was made on the exceptional grounds that "ongoing



work regarding a matter on which the Commission has not yet taken a decision and its disclosure would seriously undermine the institution's decision-making process". Thus, the parts relevant for industry have been masked.

The impact of this proposal will have ramifications for both the tissue industry and the environment:

- From the tissue industry's perspective, the EU Ecolabel tissues are among the most successful Ecolabels, generating several billions of Euros in sales every year. Companies have invested significantly in plant and equipment to be able to use the EU Ecolabel on their products. Any disruption would incur extra costs. The label also helps companies market their products across the EU and allows access to green public procurement contracts with fewer administrative burdens.
- The Ecolabel empowers EU citizens to make sustainable purchases thanks to around 40,000 environmentally-friendly products and services which carry the label. Consumers facing a wide variety of labels demand a reliable and trusted system. The repeal of the EU Ecolabel for tissue is likely to result in requests for private (retail) or national labels. Such schemes are likely to all have slightly different criteria and potentially could contain protectionist national features, hampering the functioning of the EU single market.

Objections have been raised to the College of Commissioners' proposal, not only by industry, but by the environmental and consumer NGO's as well as the retail trade – in December 2016, representatives for European paper manufacturers, retailers and wholesalers, consumer organisations and environmental NGOs, wrote to the European Commission concerning the possible discontinuation of EU Ecolabel product groups.

Environmental benefits would be reduced as narrowing the scope and the uptake of the scheme will undermine its positive effects as a sign-post for sustainable production. It would also make it more difficult for companies to ensure they focus their limited resources on the developments which are best for the environment.

This will add significant complexities to the production, marketing and sale of tissue products in Europe.

- Environmental benefits would be reduced as narrowing the scope and the uptake of the scheme will undermine its positive effects as a sign-post for sustainable production. It would also make it more difficult for companies to ensure they focus their limited resources on the developments which are best for the environment.

The tissue industry has fought hard to establish its sustainability credentials

and Ecolabels are an important part of their programmes, hence the high uptake by companies.

This action may well disrupt this strategy and at worst slow the action by industry, as they cannot be sure of the next best steps forward to continue improving the sustainability of their products.

There is hope that the concerted effort of the Industry, consumer groups, retailers, environmental NGO's as well as member states via the Council of Ministers will result in the Commission renewing the ecolabel before the end of 2018.

The tissue industry has always been supportive of a transparent EU Ecolabel based on scientific criteria, developed by well-known and respected scientific institutes.

It is important to provide clear criteria for the tissue industry and guidance to consumers.

This article was written for TWM on the back of the letter sent in December 2016 to the European Commission. The letter was signed by Sylvain Lhôte, director general Confederation of European Paper Industries, Roberto Berardi, chairman – European Tissue Symposium, Christian Verschueren, director general – Eurocommerce, Monique Goyens, director general – The European Consumer Association, and Jeremy Wates, secretary general – European Environmental Bureau.

OMET AD

Events Calendar

Event	Date	Location	Website
CIDPEX 2017	March 22 – 24, 2017	Hubei, China	www.cnhpia.org/en/shyz
Tissue World Milan	April 10 – 12, 2017	Milan, Italy	www.tissueworld.com/Milan
2017 PaperCon	April 22, 2017	Minneapolis, USA	www.tappi.org/events/event-calendar/2017-papercon
ISSA/INTERCLEAN CEE	April 26 – 28, 2017	Warsaw, Poland	www.issainterclean.com
Label Summit Latin America 2017	May 16-17, 2017	Santiago, Chile	www.labelsummit.com/chile/
Tissue World São Paulo	May 31 – June 2, 2017	São Paulo, Brazil	www.tissueworld.com/SaoPaulo
ISSA/INTERCLEAN North America	September 11-14, 2017	Las Vegas, USA	www.issainterclean.com/northamerica/
Labelexpo Europe 2017	September 25 – 28, 2017	Brussels, Belgium	www.labelexpo-europe.com
ISSA/INTERCLEAN ISTANBUL	October 18 – 20, 2017	Istanbul, Turkey	www.issainterclean.com
Labelexpo Asia 2017	December 5-8, 2017	Shanghai, China	www.labelexpo-asia.com/welcome-labelexpo-asia-2017
Tissue World Miami	March 21 – 23, 2018	Florida, USA	www.tissueworld.com/miami
ISSA/INTERCLEAN Amsterdam	May 15 – 18, 2018	Amsterdam, Netherlands	www.issainterclean.com/en/amsterdam
Asian Paper/Tissue World Bangkok 2018	June 6 – 8, 2018	Bangkok, Thailand	www.asianpapershow.com/www.tissueworld.com
Tissue World Istanbul	September 4 – 6, 2018	Istanbul, Turkey	www.tissueworld.com/istanbul
Labelexpo Americas 2018	September 25-27, 2018	Chicago, USA	www.labelexpo-americas.com/welcome-labelexpo-america



Page	Website	Page	Website	Page	Website
Andritz	45 www.andritz.com	Gambini	17 www.gambinispa.com	Solar Turbines	33 www.solarturbines.com/chp
Buckman	41 www.buckman.com	Ipek Kağıt	27 www.ipekkagit.com	STAX	GC www.staxtechnologies.com
Convermat	IFC www.convermat.com	Kennedy Hygiene	52 www.kennedy-hygiene.com	Svecom	38 www.svecom.com
EDT	49 www.edt-enzymes.com	Omet	54 www.omet.com	Tissue-Tec	5 www.tissue-tec.de
PCMC	12 www.pcmcitalia.com	Pulsar	22 www.pulsarengineering.com	Toscotec	2 www.toscotec.com
Fabio Perini	6 www.fabio-perini.com	Södra	48 www.sodra.com	Valmet	9 www.valmet.com
Fisher	32 www.fisheri.com	Sofidel	14 www.sofidel.com	Trebor	OBC www.trebor.com
Focke & Co	10 www.focke.com	Sofidel Soffass	46 www.sofidel.com	TW São Paulo	IBC www.tissueworld.com/SaoPaulo
Futura	37 www.futuraconverting.				

Subscription Form

Tissue World magazine is free to qualified members of the tissue industry. Please complete and return the form below to express your interest to subscribe for the magazine. If you're not a tissue industry professional you may purchase an annual subscription for USD 400 for 6 issues. Please contact the Tissue World team at info@tissueworld.com to enquire about subscription.

☐ Mr ☐ Ms **All fields are important and must be completed*

First Name* Last Name*

Job Title*

Company*

Address*

Postal Code*

Address 2

City* State* Country*

Telephone* Fax*

Email*

Company Website*

What is your company's primary field of business (tick all that apply):

A. INTEGRATED TISSUE PRODUCTS MAKER

Primary business making paper and producing:

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

B. JUMBO ROLL SUPPLIER

- ☐ Jumbo Roll Maker, for sale to converters

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

- ☐ Paper making machinery
☐ Fabrics, felts, clothing
☐ Drying technologies
☐ Process automation and control
☐ Water treatment, environmental and effluent control
☐ Dust control and air treatment systems
☐ Doctors and creping blades
- ☐ Deinking
☐ Stock preparation, fiber processing and pulping equipment
☐ Fibers: Market pulp and recycled fiber
☐ Chemicals and chemical technologies
- ☐ Converting machinery and supplies
☐ Printing machinery and supplies
☐ Inks, glues and dyes
☐ Embossing rolls

C. TISSUE CONVERTER

Primary business is converting jumbos and producing:

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

D. RETAILING AND DISTRIBUTION

- ☐ Retailer
☐ Broker
☐ Distributor
- ☐ Knives and blades
☐ Folders/interfolders
☐ Cores and coreboard
☐ Wrapping/Packaging equipment and supplies
☐ Transport and logistics
- ☐ Energy and Power
- ☐ Testing machines
☐ Engineering
☐ Consulting services. Please specify field:
☐ Dispensers and dispenser systems
☐ Insurance and financial services
☐ Used machinery
☐ Media, press, information services
- ☐ Other (please specify):

Signature

Date

Send to UBM Exhibition Singapore Pte Ltd, 10 Hoe Chiang Road, #20-05 Keppel Towers, Singapore 089315

Fax: +65 6221 2282 or subscribe online www.tissueworldmagazine.com/subscribe.php

Publisher reserves the right to determine qualification for free subscription

TWM
 TISSUE WORLD MAGAZINE