

# TWM

## TISSUE WORLD MAGAZINE

The independent news  
provider for the global  
tissue business



## BREXIT BRITAIN

THE NATION  
STILL WAITS...  
BUT TISSUE  
IS READY

### Plus...

**TW Milan**  
A full report

**Packaging**  
Radical change is on the way  
Infinity Machine & Engineering Corp  
FIS Impianti  
Fabio Perini  
PCMC

### Retail Special

Up to half of consumers in leading  
economies now shop online

### ConsumerSpeak

The beautiful Danish model is in tears...  
hand over the box of tissues

### ExitIssues

Tissue needs game changing  
innovation - Magnus Groth, Essity

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The Mill of the Future Zone allowed visitors in Milan to experience advanced tissue making technologies through the VR headsets.

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FI

FrontIssues

# IT COULD BE A BIG WIN OR A BIG LOSS... BUT UK TISSUE IS READY FOR THE BREXIT CHALLENGE

Helen Morris

Senior Editor, Tissue World Magazine

In a professionally efficient way this edition of TWM was chosen to coincide with Brexit Day – March 29, 2019.

Our UK Country Report would bring the latest analysis from both sides of the moment – midnight on that Friday – when the dramatic new future would begin for the UK economy generally, and for tissue especially. And, of course, what the new arrangement would mean for Europe itself.

We bring you the analysis, but, at the time of writing, Brexit has not as yet happened, and we now have a new word to deal with – Brextension. A flexible one as we now know all too well that a fixed timetable won't work. Industry will have to wait longer yet for the politicians in London to reach a workable decision. In the UK there is a phrase for this ... kicking the can further down the road. It's putting the decision off till later, in the hope that circumstances will somehow have changed so a solution can be found.

Tissue companies are not at liberty to share this amount of indecision. Uncertainty ruins strategy business planning. So it was with some concern that TWM visited UK tissue companies ... and discovered uplifting forward planning and optimism.

Our reports detail varying levels of preparation and prediction. Some companies are seeing an increase in trade as it swings back to the homeland. Most don't want a no deal scenario. Should that happen and the UK resort to World Trade Organisation rules, stockpiling is well advanced in the likely event of a sudden shock to smooth traffic at the access points. There are now many millions of toilet rolls held in reserve in warehouse at UK ports.

Fisher International suggests that initial volatility is 'unlikely' to be reflected in UK tissue fundamentals. Longer term, looking outside the EU should be a practical alternative.

Poppies Europe partner and technical director Armino Marques says: "Brexit has actually opened a lot of doors for us. In 2020, we are definitely expecting a lot of business. We have invested in machinery ... following the Brexit conclusion we will carry on growing."

At Leicester Tissue Company (LTC), the unstable marketplace has been a benefit. Customers have been exploring new options, and LTC's fitness for purpose has brought them attention. Its own integrated paper mill is being built in 2022, which will dramatically reduce the need to import. Post Brexit foreign exchange rate uncertainty is the big issue.

Ayaz Tejani, chief financial and operations officer, says: "Brexit will bring its own challenges, and we are ready for them. Our model is that we will be able to supply the market for six weeks without any issues. For us as a company, we could win a lot or lose a lot".

#### Tissue needs game-changing innovation

TWM features analysis of the crucial challenge facing the industry... the urgent need to attract young creative talent. That talent would be set to work creating game-changing developments which would attract the investors of future growth. In TW Milan, Essity president and chief executive Magnus Groth laid it on the line (see *ExitIssues*).

And in the *Packaging Technical Theme*, radical change is coming as governments and consumers demand the beginning of the eradication of plastic from across the globe.

# TISSUE WORLD

3,200 VISITORS  
FROM 91 COUNTRIES  
172 EXHIBITING COMPANIES  
60 EXPERT CONFERENCE SPEAKERS





# Tissue World MILAN 2019

**Tissue World 2019 – the world's largest tissue industry exhibition and conference – played host to over 3,200 trade professionals from 91 countries. Held at the Fieramilanocity, Milan, more than 170 companies showcased on the exhibition floor.**

Tissue World 2019 has welcomed 3,200 participants from 91 countries, with the highest number of attendees coming from Italy, Germany, USA, Turkey, UK, Spain, Serbia, and Sweden.

Held at Fieramilanocity, Milan, from 25-27 March, the world's largest dedicated tissue industry event featured 172 exhibiting companies showcasing the latest technical and innovative developments.

A three-day conference – 'Smart and Sustainable – Strategies to Stay Sharp as a New Decade Dawns' – heard the latest from 60 expert speakers, including the keynote address entitled 'Creating today a sustainable business for tomorrow', delivered by Essity president and chief executive Magnus Groth (see TWM's Exitissues for a detailed article on the talk).

It also included a Senior Management Symposium, Technical Sessions, and a Yankee Dryer Workshop.

New to this year's event was the 'Mill of the Future Zone' where visitors donned VR headsets to experience the very latest tissue making technologies, with solutions from Andritz, Firefly, Körber Digital, Valmet and Voith.

The Tissue World magazine Mills Awards were also held for the second time and bestowed awards in two categories.

The award for Best Tissue Marketing Strategy was shared by two companies: Essity for its 'Take Back the Lunch

break' campaign, which promoted data demonstrating the benefits of lunch breaks for employee productivity and happiness; and Hayat Kimya for its successful creation of a new product category – detergent wipes – offering consumers the practicality of tissue paper and the hygiene of detergent in just one product.

Essity won the award for Most Energy-Aware Mill, showcasing a solid track record of improvement in energy consumption on its Lucca operations site.

Having reduced its energy use by 13% over the last 10 years, the company reduced it a further 5% in 2017 and 2018 – the equivalent to the CO2 emissions produced by 1,300 cars travelling an average 15,000km.

Two networking functions were held: Tissue World's Aperitivo on the first evening, and the traditional Happy Hour on the second evening with live swing music.

## **TISSUE WORLD – AND 2021**

Tissue World has kept its vow to circulate and will move its 2021 event to Düsseldorf, Germany.

Since the launch of the first Tissue World back in 1993, the event has taken place in different European cities.

After two editions in Italy, in a great city that graced us with its design, quality and impeccable services, Düsseldorf has been carefully chosen based on an in-depth

market study and survey responses from industry stakeholders.

The move will offer new business opportunities for all industry players.

Built on 26 years of history, Tissue World covers the entire tissue value chain, from raw material suppliers, finished product manufacturers, jumbo roll suppliers, converters, traders to paper machinery makers, packaging equipment suppliers and many more.

Tissue World trade shows and conferences currently take place across five cities: Milan, São Paulo, Miami, Bangkok and Istanbul.

Tissue World also publishes Tissue World magazine, the leading independent news provider for the global tissue business.

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# CONFERENCE – SENIOR MANAGEMENT SYMPOSIUM: A SUMMARY OF THE KEY TALKS

## WORLD TISSUE MARKET OUTLOOK: WITH FOCUS ON EUROPE

*Esko Uutela, principal, tissue, Fastmarkets RISI*

Recent global trendsWorld tissue consumption by region, 2017:

Market is dynamic – global consumption: 37.7m tonnes (2017); China has passed Western Europe in market size, while Asia Far East and Eastern Europe are now larger than Japan. China has been the largest producer country since 2015. In 2018, the benchmark of 39m tonnes was likely exceeded.

### Growth in the global tissue market

Relatively stable growth until the Great Recession in 2009, recent years have been strong with 3.8% growth rates, and in 2015 even 4.1%.

Volume growth of tissue consumption, 2007-2017. China accounted for 41% of growth, North and Latin America share second place.

The North American tissue market has been strong recently.

The AfH sector in particular benefitted from the strong economy and low gasoline prices in 2015-2016; 2016 growth extremely high at 3.2%; 2017 1.9% and

2018 2.3%.

US tissue import growth, 2010-2018: Canada continues to be the main US import source for tissue, but China has taken the second position ahead of Mexico and Indonesia. However, imports tariffs will likely restrict imports or at least growth in imports from China from 2019 onward.

### Trade wars will likely change supply patterns:

- Canada imposed a 10% duty on imports of certain goods from the USA, including tissue, effective 1 July 2018, as a protest to US taxes for steel and aluminium. However, the US trade statistics do not show any major decrease in tissue exports to Canada since then, but longer-term effects cannot be excluded.
- China has raised import taxes of 20% for all tissue products imported from the USA except for the category 48.18.90 (hospital and diverse tissues), whose rate is 5%. However, this is a rather unimportant issue as US tissue

exports to China were not more than about 5,000 tonnes in 2017.

- The trade war between China and the USA escalated in September 2018 when the USA announced a 10% tariff on US\$200bn worth of Chinese goods imported to the USA, including all the main categories of tissue with the exception of 48.18.90. This is a major issue as China is the second-largest import source of tissue after Canada. In 2018, tissue imports from China were about 336,000 tonnes, which corresponds to the capacity of five large tissue machines! The 10% tariff has been partly offset by the weakening of the Chinese exchange rate.
- However, there is the threat that the tariffs on China could go up to 25% in near future if no new agreement in the trade war can be reached. This decision has been delayed but if coming, it would certainly cut tissue imports from China, and alternative sources may not be able to replace the whole quantity.



## US tissue imports from China by main category, 2010-2018

Main categories likely to suffer; however, the "other tissue" category may grow as there is no duty on that category. Changes in the retail sector – There are some important changes in the US retail sector, which mean new challenges to tissue product suppliers.

- One of the most important recent developments is the entry of the German hard discounter Lidl in the US market, with more than 50 outlets opened and more coming, although the target of 100 outlets within one year was not reached.
- Competing retailers, including the two largest US chains, Walmart and Kroger, are carefully watching Lidl's activity and pricing strategy, and have reacted by lowering their prices of certain daily goods closer to Lidl's (and Aldi's). This is good for consumers, but retailer and supplier margins are under pressure. Lidl's main focus is on private labels, which are expected to gain market share.
- Online sales are growing and this is changing the traditional retail sector logistics and thinking—and some players, such as Amazon, have also entered the brick-and-mortar business.

## Expected growth in US tissue consumption by business sector

At-Home retailer labels will show the strongest growth, while At-Home branded volume growth will remain moderate. AfH growth will rise above average At-Home growth.

## Major tissue capacity changes in North America, 2018-2021

### 2018

Georgia-Pacific, Augusta, Georgia **31,000t/a**  
Sofidel America, Circleville, OH, USA (2 x NTT) **140,000t/a**  
Kimberly-Clark, Fullerton, CA, USA **-60,000t/a**  
First Quality Tissue, Anderson, SC, USA (TAD PM) **64,000t/a**

**= 113,000t/a**

### 2019

Soundview Paper, Elmwood Park, New Jersey, USA (closure due to fire) **110,000t/a**  
Irving Consumer Products, Macon, GA, USA (TAD PM) **64,000t/a**  
Clearwater Paper, Shelby, NC, USA (NTT PM)

**64,000t/a**

Cascades Tissue Group, Scarborough and Whitby, ONT, Canada (mill closures) – **61,000t/a**  
Soundview Elmwood Park, New Jersey, USA (restart) **110,000t/a**  
Georgia-Pacific Corp., Palatka, FL, USA (TAD PM) **72,000t/a**  
Sofidel America, Inola, OK, USA **60,000 t/a**

**= 199,000t/a**

### 2020-2021

First Quality Tissue, Lock Haven, PA, USA **64,000t/a**  
Sofidel America, Inola, OK, USA **60,000t/a**  
Kruger Tissue, Brompton, Sherbrook, QC, Canada (TAD PM) **70,000 t/a**

**194,000 t/a.**

The outlook is surprisingly good despite the number of projects, but a lot depends on how much tariffs on imports from China change the net trade balance; we assume a conservative decline in the growth of net imports in this forecast

Closures in 2019 helping substantially, but a lot of new capacity coming on stream that will affect 2020-2021; utilisation rate will slightly head south but still remain rather high if no further major projects emerging.

## Latin American outlook

Main Latin American tissue markets, 2017: the five largest markets accounted for 77% of total consumption in 2017, Brazil and Mexico dominate, followed by Argentina, Chile and Colombia. Latin American tissue market shows varying annual growth, change to a more positive trend expected. Economic turbulence and political instability caused problems and disappointing growth in 2014-2016, mainly due to the Brazilian recession; 2017 was more positive.

Expected volume growth of Latin American tissue demand by main country, 2016-2020  
Brazil is expected to recover strongly and Mexico is also back on a growth track.  
Project delays and stronger demand could help a lot, but the current outlook does not suggest any major improvement.

## Western and Eastern European outlook

Western European tissue market showed positive recovery in 2015, but disappointed in 2016-2018. Major variations in growth

from year to year, and preliminary data for 2018 suggest it was also not a good year, with only marginal growth.

Eastern European tissue market growth negatively affected by political tension but now recovering. The Russia-Ukraine conflict has taken its toll on the tissue sector, but 2016 was surprisingly strong, mainly thanks to Poland, the Russian market is in full recovery now

Growth Rate of Western European Tissue Consumption, 2014-2022

We expect relatively slow growth to continue for this and the next few years, but up from 2018.

Major capacity changes (>10,000 t/a) in the Western European tissue industry, 2018-2020

### 2018

Cartiera die Pietramelara (Paperdi), Pietramelara, Italy **35,000t/a**  
Lucart Tissue & Soaps, Aranguren, Bilbao, Spain (restart) **50,000t/a**  
Essity, Skelmersdale, UK (TAD PM rebuild and restart) **28,000t/a**  
Goma-Camps, Ejeo de Caballeros, Spain, Italy **34,000t/a**  
Essity, Allo and La Riba, Spain **-76,000t/a**  
Cartiera della Basilica (Eurovast), Botticino, Italy **10,000t/a**  
The Navigator Company, Cacia, Aveiro, Portugal **70,000t/a**  
Ibertissue (Sofidel), Bunuel, Spain **70,000t/a**  
ICT Iberica, El Burgo del Ebro, Zaragoza, Spain **70,000t/a**  
Lucart, Porcari, Italy **20,000t/a**

**= 311,000t/a**

### 2019-2020

Klippans Bruk, Klippan, Sweden **30,000t/a**  
Global Hygiène, Charavines, France **30,000t/a**  
Fourstones Group, Sapphire, Leslie, Scotland, UK **28,000t/a**

**= 88,000t/a**

Capacity closures have helped the industry, but new projects thereafter cut the trend; low demand growth lowered capacity utilization in 2018, and new projects in 2019-2020 will keep the outlook moderate in the next couple of years.

Growth rate of Eastern European tissue consumption, 2014-2022

The demand outlook is rather optimistic for tissue market growth in the next few years

Major capacity changes (>5,000 t/a) in the Eastern European tissue industry, 2018-2020

## 2018

|                                               |           |
|-----------------------------------------------|-----------|
| Velvet Care, Klucze, Poland                   | 70,000t/a |
| Vajda Papir, Dunaföldvár, Hungary             | 32,000t/a |
| Drenik ND, Belgrade, Serbia                   | 30,000t/a |
| Hayat Kimya Group, Alabuga, Tatarstan, Russia | 70,000t/a |

**= 202,000t/a**

## 2019-2020

|                                                |           |
|------------------------------------------------|-----------|
| Higi Papersoft (Drenik), Szolnok, Hungary      | 30,000t/a |
| Rollpap, Opatovice nad Labem, Czech Republic   | 7,000t/a  |
| Arkhubum Tissue Group, Vorsino, Kaluga, Russia | 70,000t/a |

**= 100,000t/a.**

New investments from late 2014 onward and slower demand growth caused capacity utilisation to decline

Minor improvement with recovery in 2016-2017, but new expansions pushing capacity utilisation down again in 2018-2019

## Asian outlook

Main Asian tissue markets, 2017 – China dominant, Asia Far East now larger than Japan.

Recent growth rates of Chinese tissue consumption: The Chinese tissue market has been in a very robust growth phase and is now showing stronger growth than the economy.

## Chinese tissue export growth, 2010-2017

Chinese tissue exports exploded in 2011-2014 and were shipped to nearly every corner of the world—with Asia Far East, North America and Japan the largest buyers, followed by Oceania. Growth waned in 2015, but resumed in 2016-2018 to more than 900,000 tonnes. If the US tariffs on Chinese tissue are raised to 25% as speculated, the growth in exports will likely stop and turn into decline. In 2018, export growth had already stabilised.

## Chinese investments exploding, but closures and project delays expected

There is a real investment peak with too much capacity being built, but currently also a wave of capacity closures in the industry—as much as 1.3m tonnes in 2017 and more than 1.0m tonnes in 2018!

The ongoing structural change in the

Chinese tissue industry has been very radical and quick, and it is expected to continue in the next couple of years. New capacity will replace major parts of the older capacity, and older technologies will have no chance to survive. This will help balance the situation to some extent, but it will not totally solve the overcapacity problem.

Overcapacity is obvious, although project delays may help.

## Global outlook

Anticipated growth in the global tissue market. Tissue consumption benefitting from improving global economic growth, but there are also uncertainties ahead.

World tissue capacity change, 2005-2021: Announced tissue capacity expansion clearly exceeds organic market growth. In some years, such as 2019, new capacity coming on stream is double the consumption growth. Closures have helped and will continue to do so in the future, but investment activity is overheated.

The tissue sector is attracting too many investments. Major capacity closures could improve outlook, but only marginally. Global overcapacity is the name of the game!

# BETWEEN RISKS AND OPPORTUNITIES, REIMAGINING THE FUTURE OF RETAIL TISSUE IN WESTERN EUROPE

Manon Quilleré, research analyst, Euromonitor International, UK

## Retail tissue: key trends and challenges

- No Deal Brexit scenario. Would be translated in a loss of USD68m in value and 140,000 Tonnes in volume.
- Rise of private label. In a mature market like WE, tissue products are highly commoditised. Collectively, private label products accounted for 55% of the value of the market in 2018.
- Sustainability becoming a major focus for both consumers and manufacturers.
- Developing an effective online presence.
- WE: Third largest market in the world in terms of value sales for retail tissue.

Despite this high market size, region expected to see sluggish growth over the forecast period, impacted by high levels of household penetration, market saturation, weak population and GDP growth.

Spain: Fifth largest market in the region in value and volume. On the one hand, retail tissue per capita consumption set to

increase by 4% in the next five years. On the other hand, unit prices will be pushed upwards due to increasing costs and premiumisation. Therefore, growth set to be stronger in value than in volume.

Little Room for Growth in WE

Mature market with limited growth potential in terms of per capita consumption. Per capita consumption stood at 8.8kg in 2018. Very high compared to the average per capita consumption in the world (3.3kg).

Unmet market potential measured as the difference between the consumption level today and what it could potentially be in the future. Does not have a specific timeline. Can be met in the next few years or in 20 years or might not be captured at all, depending on market conditions.

Opportunities for incremental retail tissue sales in WE stand at 1.3 million tonnes. Very little if we compare that to other regions:

- Middle East and Africa: 3.2 million

tonnes

- Asia Pacific: 9.8 million tonnes

Since opportunities are limited in volume, interesting to focus on value to develop growth opportunities.

Euromonitor International has identified several megatrends shaping consumer behaviours and attitudes today and in the future. General trends, i.e. can be related to a large number of FMCG industries. We selected 3 megatrends that are the most relevant to tissue.

## 1. Ethical Living

Ethical Living: being mindful of others when making consumer choices.

The ethicalisation of society is impacted by interlinking spheres of influence: policy, NGO pressure, corporate change, people power.

A few brands have embraced those trends and are doing well as a result. Example of The Cheeky Panda (UK) and Who Gives A Crap (Australia).



Ethical Living feature particularly appealing to Millennials.

What the Millennials want varies from person to person, particularly by culture. However, a number of common wishes can be identified. Want experiences rather than "things", want good value for money, want products that speak to them, and want to be heard and interacted with.

Are willing to pay more for all organic or natural products. But their needs should not be oversimplified. Also plan to increase spending on private label and to increase visits to discount stores.

## 2. Middle class retreat

Consumers increasingly conditioned to buy on deal and discount. Can be seen with the rise of discounters. Greece: strong migration towards discounters due to bankruptcy of Carrefour in 2016.

UK: more consumers switching to shopping in Aldi and Lidl, thanks to the positive perception of quality products offered at a lower price. The economic uncertainty due to the future of the UK after Brexit is also an important factor sending consumers towards discounters.

Aldi and Lidl dominate the retailing landscape in WE. Enjoyed single digit value growth in 2018, unlike Carrefour which is number 3 but registered negative growth during the year.

## 3. Shopping reinvented

The brandless store: imagine a store without brands. This is what a store in 10 or 15 years could look like. Consumers would only shop by products attributes, functionality, or ingredients. Amazon extending its private label line: Traditionally, Amazon mostly offering branded tissue products. Launched in 2017 its own label line of tissue products called Presto. Presto set to gain in momentum in the coming years. Voice control devices such as Amazon Echo likely to directly suggest Presto products when consumers order tissue products. Set to also retain consumers in the long run. The convenience of subscription boxes: Another way to retain consumers is through subscription boxes. Examples of Smooth Panda (Germany) and Les Rois du PQ (Switzerland).

## IS THE GLOBAL PULP SHORTAGE GOING TO CONTINUE?

*Tomi Amberla, principal, Pöyry Management Consulting, Finland*

Pulp is the most important cost driver in tissue. More than 70% of the jumbo reel manufacturing costs, and more than 50% of toilet paper.

Unscheduled downtime was the key pulp price driver in 2017-2018. Most of the 2017-18 pulp price increase due to unforeseen production losses. Major production losses in 2017-2018. Tightness of the pulp market would have disappeared already by Q3/2017, had not been for exceptionally large unscheduled production losses.

### Market balance outlook

Demand for fibre continues on healthy growth track World consumption of papermaking fibre is forecast to grow by 1.3%/a in the long term. China continues as the main growth driver in pulp market China accounts for 60% of the projected market BKP demand increment through 2030

### Decided and planned market BKP capacity changes

Net change around 11 Mt of additional capacity if all decided and planned capacity expansions were realised on their announced schedules

### Gradual tightening balance towards early 2020's

Moderate softness in global pulp market expected through early 2019, thereafter, gradually tightening balance due to the solid demand growth and thin project pipeline.

### Factors of uncertainty

China RCP import bans

- How will China cope with the major drop of RCP imports?
- A complete ban of RCP bans will be placed in/after 2020?

### Unscheduled downtime

- Ageing recovery boilers especially in BSKP
- In BHKP, the volume impacts of any production losses are becoming more substantial due to the larger scale of assets.

### Alternative uses of pulp

- Conversions from paper grade pulp to dissolving are foreseen to continue.
- The main upside risks for dissolving pulp demand are interlinked with the possible success of viscose fibre substituting competing materials

### Other

- Global economy & trade policies
- Raw material prices in pulp manufacturing
- De-integration adding market pulp supply at short notice.

### How will China cope with a major drop in RCP imports?

Falling RCP imports likely to be partly compensated by virgin fibre

High boiler age and growing mill size add to downtime risks

Mill age adds to downtime and rising mill size boosts the volume impact of even short stops

### Factors of uncertainties

Rapid growth in non-paper end-uses of pulp encourages capacity switches from paper grades pulp to alternative uses. Plastic replacement efforts lead to a further upside risk

### Wrap up

- Major production losses in 2017-18 resulted in pulp shortage and fast market pulp price increases – hitting the profitability of tissue manufacturers in Europe and across the world
- After a softer passage in late 2018 / early 2019, market pulp demand growth is foreseen to continue strong, while the project pipeline at present is thin
- Consequently, the market pulp balance is expected to tighten towards early 2020s
- Major factors of uncertainties continue to flavour the pulp market through medium term future.

Pulp market volatility is here to stay.



## ENTERING THE TISSUE BUSINESS – A STRATEGIC MOVE

Nuno Santos, executive director, The Navigator Company, Portugal

Forest is one of the most important pillars for the sustainability of The Navigator Company

### WHY TISSUE?

1. Portfolio diversification
  - In 2014, The Navigator Company conducted a strategic reflection to identify new opportunities to grow and diversify its business portfolio, resulting in a move into the tissue business
2. Long-term attractiveness
  - Every day product with room for differentiation
  - Essential and fast-moving consumer good with (quite) limited substitution threats
  - Opportunities for product innovation, quality differentiation and "premiumisation"
  - Sizeable market .. with growth potential.
3. full forest-to-pulp-to-tissue integration
  - Incorporation of high-quality virgin pulp of Eucalyptus Globulus to obtain the softest tissue (consistency, cost and quality advantage)
  - Cost synergies in integration with pulp resulting from efficiencies in supply chain and energy (e.g., no pulp transportation, drying and re-watering)
  - World-class and state-of-the-art technology solutions in line with Industry 4.0 (better products, lower costs)
  - Environmentally-responsible, sustainable and certified raw materials and processes (e.g., ECOLABEL, BRC, FSC and PEFC).

### FROM FINE PAPERS TO TISSUE:

#### Major steps in a new direction

- OUR OPERATION IN VILA VELHA DE RÓDÃO: a modern and efficient tissue mill
- Founded in 2009 as an independent tissue producer in Castelo Branco, Portugal
- Established customer base, modern equipment and young & talented workforce
- Integrated with eucalyptus slush pulp
- supplied via pipeline by a third-party
- 2x Toscotec tissue machines (60ktonne) tissue paper grades from 14 to 32 g/m<sup>2</sup>
- 4x Perini converting lines (52ktonne) toilet paper, kitchen roll, professional towel
- 3x OMET napkins lines (8ktonne) 1x MTC hand towel line (5ktonne)

### OUR OPERATION IN CACIA:

#### the next generation of tissue production

- Start-up during mid-2018, representing an investment over 120 million euros
- Fully integrated with top-quality Eucalyptus Globulus fiber from our own pulp mill
- 1x Voith tissue machine (70ktonne) designed to maximise short fibre incorporation
- 3x Gambini converting lines (50ktonne) toilet paper, kitchen roll, professional towel
- 1x Omet napkins line (4ktonne) Fully automated PR and FP warehousing
- Next generation of tissue production, with unique specs:
- 100% virgin pulp, top-quality products (softness, resistance, bulk) and sizeable production units

### TISSUE REVENUE EVOLUTION

- avenue for growth and diversification of current portfolio
- Objective of reaching 15-20% of The Navigator Company's total revenue by 2025, aiming at becoming a relevant European player in this business

### TISSUE REVENUE SPLIT

- balanced client portfolio, with a focus on export markets
- Revenue by segment (2018)
- 39% Consumer, 59% AfH, 2% parent reel.
- Revenue by geography (2018)
- 51% Portugal, 35% Spain, 13% France and others.

### KEY LESSONS LEARNT

- an ongoing story made of achievements and challenges

### ACHIEVEMENTS

- Entering the business via acquisition of an established operation with commercial and technical know-how
- Protecting the development of the business unit by ring-fencing its organisational structure
- Committing to a rapid growth path and strategy,
- expanding installed capacity fourfold in four years
- Pursuing differentiation with our core capabilities,
- namely quality of assets, products and of raw materials
- Replicating a model of long-term partnerships with our customers, our suppliers and other stakeholders.

### CHALLENGES

- Integrating a smaller company in a much larger group such as The Navigator Company
- Actively managing cultural differences to align the unit with the group's vision and values
- Growing pains (team still in build-up phase, operation not yet stabilized, never-ending race)
- Burden of proving to be a business at least as profitable as our uncoated paper core business
- Educating customers towards the necessity of price adjustments (i.e. due to cost inflation).



## UK

### WEPA UK stockpiles products in case of no-deal Brexit

WEPA UK has been stockpiling 3.5m toilet and kitchen rolls in its warehouses during the past four months in case of a no-deal Brexit. It is hoped that the extra 600 tonnes will safeguard supplies in Britain.

Mike Docker, managing director of WEPA UK, said: "We have an end-to-end plan to make sure our supermarket customers do not run out of stock on-shelf as a result of a no-deal Brexit.

"We are dealing very closely with our customers through our supply chain and our commercial teams to ensure that supply continues to meet demand."

He added that the industry is pretty reliant on imports: "We've been planning for Brexit since August last year to make sure we maintain our levels of service.

"What we've concentrated on is the potential of a hard Brexit. That's the worst-case scenario for us, where we'd probably see major delays at the border."

The company has also built six weeks' supplies of the cardboard core used inside toilet and kitchen rolls, as this cannot be sourced from the UK in sufficient quantities and is imported from EU countries.

Docker added: "The new delay in the Brexit deadline will not change our approach and planning for all eventualities will help safeguard customer supply."

UK businesses fear that customs checks introduced after a no-deal Brexit could lead to lengthy delays and drive up the cost of materials.

## GLOBAL

### Cascades announces results, reporting "difficult industry-wide market dynamics" for tissue; announces new president and COO

Cascades has reported a sales increase up 2% to \$1,196m for the fourth quarter of 2018 compared to \$1,175m in the third quarter of 2018.

This is an increase of 11% compared to the fourth quarter of 2017.

For the whole of 2018, it reported sales of \$4,649m compared to \$4,321m in 2017, an increase of 8%.

Mario Plourde, president and chief executive, said: "Cascades is delivering record annual performance in terms of adjusted OIBD and Health & Safety."

He added that as previously disclosed,

fourth quarter performance of the tissue operations were "well below expectations".

He said: "The results of this segment were negatively impacted by the continued challenging industry and operational conditions, in addition to several non-recurring events that led to higher logistics costs within the platform and higher gas costs for operations on the West Coast.

"Operational difficulties at the St. Helens tissue mill in Oregon also negatively affected performance during the last three months of the year, with these issues leading to inefficiencies at the Scappoose converting facility that it supplies.

"The Corporation reviewed the recoverable value of its assets and recorded an impairment charge of \$75m on certain U.S. assets.

"Management has developed an action plan that it is implementing to successfully redress profitability in this group."

In November, the company announced an investment in the Wagram, N.C. tissue converting facility as part of its capital expenditure plan.

The project involves the installation of new state-of-the-art converting lines and the modernisation of several existing lines, with commissioning expected to begin in the second quarter of 2019 and finalised in the first half of 2020.

Plourde added that the outlook for tissue is "not as robust in the near-term".

"While recent decreases in raw material pricing and the continued implementation of announced price increases in some product sub-segments are positive for this business, any resulting benefits are being counterbalanced by difficult industry-wide market dynamics and operational challenges at our St-Helens mill, in Oregon.

"As such, we expect financial performance will remain under pressure.

"Management is focused on the resolution of these issues, and is currently implementing the actions required – in addition to the modernisation

efforts already underway – to successfully realign the tissue segment's operational performance with targeted profitability levels."



"I very humbly and enthusiastically accept the responsibilities of president of the Tissue Group" Cascades new president Jean-David Tardif

### Jean-David Tardif appointed as president and COO

Cascades Tissue Group has also appointed Jean-David Tardif as president and chief operating officer. He will succeed Jean Jobin, who has said he is devoting time to personal projects. Tardif first joined Cascades in 1997 and he has worked successfully for each of the company's three groups.

In the Tissue Group, he was vice-president, Consumer Products, from 2013 to 2017. Since December 2017, he has held the position of vice-president, operations for the Cascades Containerboard Packaging.

He said: "I very humbly and enthusiastically accept the responsibilities of president of the Tissue Group. Despite the challenges we are facing today, I am confident that many opportunities await us and that we have not yet reached our full potential."

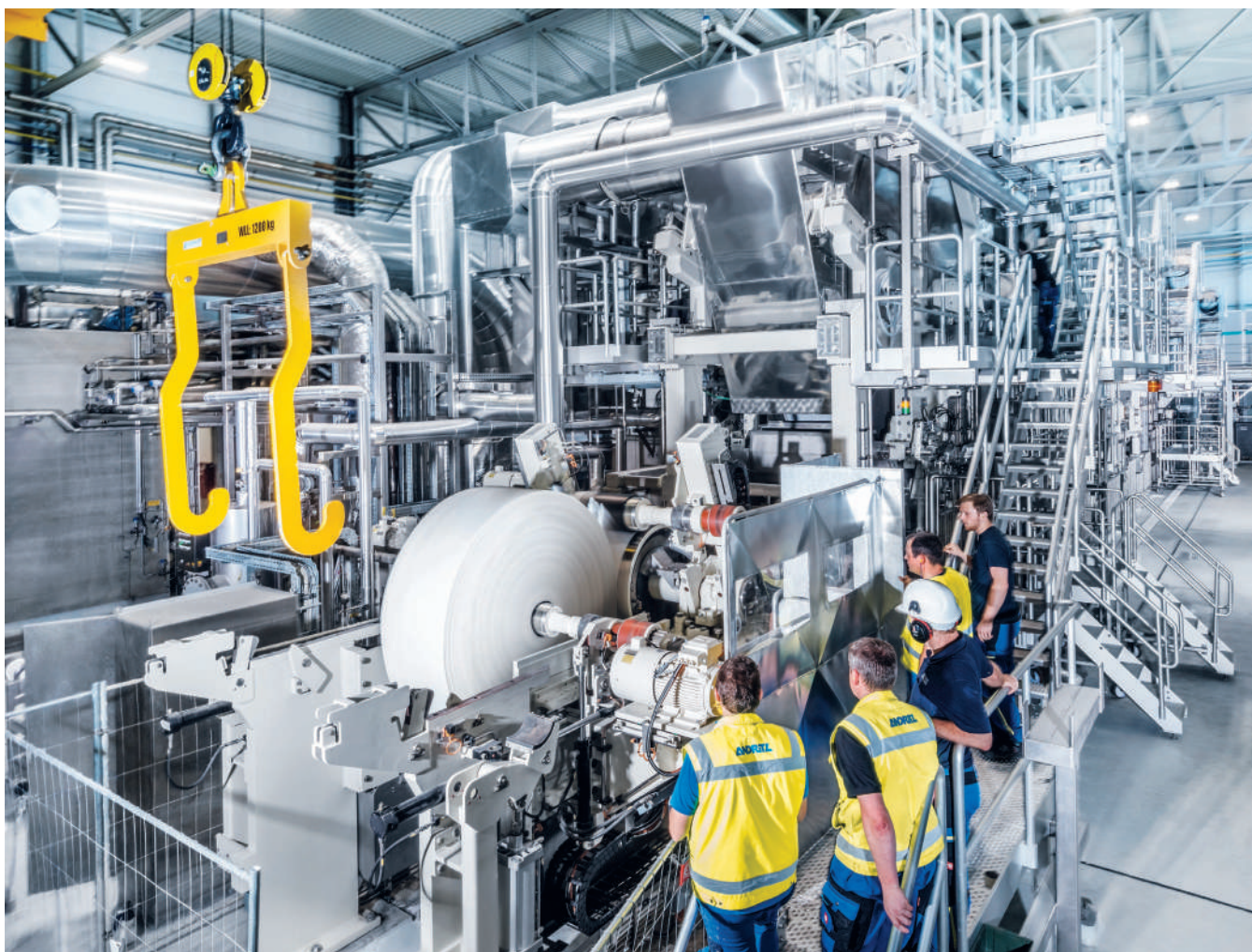
Jobin said: "I indicated to Cascades' management in recent weeks that I wanted to devote my time to personal projects.

"This is therefore an emotional day as I announce that I am leaving Cascades and the Tissue Group after a career spanning more than 26 years.

"In doing so, I feel that my mission has been accomplished and I am sure the company has a capable and competent succession team as it continues forward."

**WEPA UK HAS BEEN STOCKPILING 3.5M TOILET AND KITCHEN ROLLS IN ITS WAREHOUSES DURING THE PAST FOUR MONTHS IN CASE OF A NO-DEAL BREXIT. IT IS HOPED THAT THE EXTRA 600 TONNES WILL SAFEGUARD SUPPLIES IN BRITAIN.**





*Textured tissue: the pilot plant in Graz, Austria, is currently configured as a PrimeLineTEX machine*

### Andritz targets textured tissue with PrimeLineTEX TM launch

Andritz has launched its new tissue machine for textured tissue, the PrimeLineTEX.

According to the supplier, the machine enables customers to produce textured tissue of a quality superior to dry crepe and very close to structured (TAD) tissue, while at the same time achieving significant cost savings.

PrimeLineTEX is available with widths of 5.6 or 2.8m and produces high-quality tissue for towel and sanitary applications.

Andritz said: "The machine offers up to 25% fibre savings compared to dry crepe and consumes up to 50% less energy than a TAD machine.

"The PrimeLine TEX is substantially shorter in length than other market solutions and uses only one additional fabric instead of two.

"Furthermore, the PrimeLineTEX machine can switch between production of textured and dry crepe tissue within a much shorter time than comparable solutions.

### Kruger Products announces AfH price hike

Kruger Products (KPLP) has announced a price increase for its AfH tissue products sold in Canada and the USA.

The increase will be made effective as of 1 May.

The company said the hike was required to "offset unprecedented and sustained cost increases on input materials".

KP Tissue – which holds a limited partnership interest in KPLP - was created to acquire and has a limited partnership interest in KPLP.

### Metsä Tissue launches €25m fixed cost saving programme

Metsä Tissue has launched a fixed cost saving programme as part of its operational

review. It is aiming to saving €25m in annual fixed costs and has started co-determination negotiations in order to improve internal efficiency, focus and reduce complexity in Tissue Business.

It said that the planned restructuring can lead to organisational changes, such as job changes and redundancies.

Co-determination negotiations in sales and marketing, supply chain, finance and HR organisations will commence in February 2019.

The estimated reduction is approximately 90 in total and the highest savings target is planned to be in the consumer business in Central Europe and CEE.

**METSÄ TISSUE HAS LAUNCHED A FIXED COST SAVING PROGRAMME AS PART OF ITS OPERATIONAL REVIEW. IT IS AIMING TO SAVING €25M IN ANNUAL FIXED COSTS AND HAS STARTED CO-DETERMINATION NEGOTIATIONS IN ORDER TO IMPROVE INTERNAL EFFICIENCY, FOCUS AND REDUCE COMPLEXITY IN TISSUE BUSINESS.**

## GP announces executive leadership changes; Kathy Walters to retire and replaced by David Duncan

Georgia-Pacific (GP) has announced that Kathleen A. "Kathy" Walters will retire as executive vice president – consumer products group, effective 1 June 2019.

David Duncan, who currently serves as executive vice president – building products group, has been named to lead the consumer products group.

Pat Boushka, currently president of GP Cellulose, will succeed Duncan as leader of the building products group.

Munir Abdallah, currently vice president of sales and marketing for GP Cellulose, will succeed Pat Boushka as president of GP Cellulose.

Christian Fischer, GP president and chief executive, said: "I want to thank Kathy for her leadership of the largest retail and commercial tissue and tabletop businesses in North America over the past 15 years.

"The consumer products group has certainly benefited from her industry expertise and ability to drive growth through innovation, effective business strategies and operational improvements."

Walters joined the company in 2004, taking on leadership of its commercial tissue business throughout North America including sales, marketing, customer service, business development and strategy.

Duncan joined GP in January 2018 as executive vice president of GP's building products group after serving seven years as president of INVISTA Performance Solutions – also a Koch Industries company.

He joined Koch in 1997 and held positions with Koch Capital Services and Koch Ventures, Inc., where he became managing director in 2001, and subsequently worked in Koch's business development group.

In 2004, he was director of transition for the company's INVISTA acquisition.

Later that year he joined Koch Minerals as CFO before returning to INVISTA in 2007 as

executive vice president of its Downstream business.

GP's leadership changes will take effect on 1 June.

Based in Atlanta, Georgia-Pacific and its subsidiaries are among the world's leading manufacturers and marketers of bath tissue, paper towels and napkins, tableware, paper-based packaging, cellulose, specialty fibres, nonwoven fabrics, building products and related chemicals.

## GP to exit communication papers business; focus on tissue and towel

Georgia-Pacific (GP) is exiting the communication papers business following an assessment of its long-term competitive position in a declining market.

The company will permanently shut down the communication papers machines, related converting assets, as well as the woodyard, pulp mill and a significant portion of the energy complex at its Port Hudson, Louisiana facility.

Approximately 650 jobs at the facility will ultimately be impacted by the communication papers and pulp asset closures. About 40 business and sales jobs also will be affected by this decision.

However, tissue and towel manufacturing will continue as an "important asset for the GP consumer business".

GP said it will continue to operate and invest in the Port Hudson mill to support its growing consumer tissue and towel business.

The Port Hudson facility produces premium product tissue and towel machines and associated converting equipment and is a key contributor to the success of the Consumer Products Group's retail business.

The company will retain approximately 300 employees to manage those operations.

Employees will continue to operate the Port Hudson communication papers and pulp mill assets, with final operations of those assets expected by mid-March.

## PAPCEL changed its ownership structure

PAPCEL has changed its ownership structure and announced that 100% of its shares are now held by Czech company Vega-HSH.

In the last four years, the company has been involved in several acquisitions of competing companies in eastern Europe under chief executive David Dostal.

In 2019, PAPCEL Group changed its ownership structure on the basis of mutual negotiations of current company shareholders.

VEGA-HSH is now the sole shareholder.

## Futura launches "first-in-tissue" technology

Futura has launched its JOI HYDRO-BOND technology, which it said is a first in tissue converting to achieve perfect adhesion of tissue plies using water alone.

The company said the technology heralds the era of bonding without glue.

It is the result of months of experimentation at FuturaLab, Futura's hub of innovation.

Chief technology officer Giovacchino Giurlani said: "There are no chemicals at play here.

"Perfect adhesion of the tissue plies is the result of a combination of the uniform nip pressure of JOI's renowned Zero Deflexion steel marrying roll, which evenly connects the plies using water to create permanence to the tissue-to-tissue bond which results."

The technology has been tested and proven under real-life operating conditions, using a wide variety of toilet tissue, including conventional and structured.

The supplier said it has verified the process in warm and humid to cold and dry climates, using the varied local water quality available.

It added that the results have consistently confirmed the validity of Hydro-Bond even with 3 and 4 plies.

Sergio Tonarelli, Futura's chief sales officer, said: "The end result is a product which is more hygienic and pleasant for the consumer to use, and more sustainable, from both an environmental and economic point of view.

"The roll which results from JOI Hydro-Bond retains all its qualities, but is better thanks to what it is missing.

"The production process without glue will provide increased output. Removing glue from the equation also means reduced contamination of the machine with the benefits which this brings. While glue

**GEORGIA-PACIFIC (GP) IS EXITING THE COMMUNICATION PAPERS BUSINESS FOLLOWING AN ASSESSMENT OF ITS LONG-TERM COMPETITIVE POSITION IN A DECLINING MARKET. THE COMPANY WILL PERMANENTLY SHUT DOWN THE COMMUNICATION PAPERS MACHINES, RELATED CONVERTING ASSETS, AS WELL AS THE WOODYARD, PULP MILL AND A SIGNIFICANT PORTION OF THE ENERGY COMPLEX AT ITS PORT HUDSON, LOUISIANA FACILITY.**



represents a cost, the main impact is the efficiency-related savings in the process, which mean increased Overall Equipment Efficiency."

### ProMach boosts robotics capabilities with Quest Industrial acquisition

ProMach has acquired Quest Industrial, a provider of robotic integration solutions. The move means the packaging machinery provider will strengthen its robotics integration capabilities across multiple markets. Wisconsin, USA-based Quest was founded in 2001 and is a full-service robotic integrator that specialises in automation solutions across food, beverage, plastics and metal.

Its machinery include applications in pick and place, cup filling, knife cutting, vacuum sealing, case-erecting, tray forming, palletising, vision and verification systems, as well as bundling multiple application technologies into a single robotic packaging cell. Mark Anderson, ProMach president and chief executive, said: "Robotics has been a strong growth engine for ProMach recently, with significant double-digit growth over the last few years, driven by customers looking to add automation, flexibility, consistency, and more to their packaging lines.

**PROMACH HAS ACQUIRED QUEST INDUSTRIAL, A PROVIDER OF ROBOTIC INTEGRATION SOLUTIONS. THE MOVE MEANS THE PACKAGING MACHINERY PROVIDER WILL STRENGTHEN ITS ROBOTICS INTEGRATION CAPABILITIES ACROSS MULTIPLE MARKETS. WISCONSIN, USA-BASED QUEST WAS FOUNDED IN 2001 AND IS A FULL-SERVICE ROBOTIC INTEGRATOR THAT SPECIALISES IN AUTOMATION SOLUTIONS ACROSS FOOD, BEVERAGE, PLASTICS AND METAL.**

"Quest is a high integrity team with a well-earned reputation for designing, fabricating, delivering, and supporting robotic cells to customers across a range of industries."

Don Wickstrum, founder and chief executive of Quest, will join ProMach as vice president of business development for Robotic Solutions.

Current Quest president Bill Weichmann will join ProMach as vice president and general manager of Quest.

Wickstrum said: "ProMach has a strong reputation in the marketplace for acquiring and integrating companies with minimal disruption and driving organic growth within their product brands by giving them the autonomy to run their business

combined with access to ProMach's resources and network.

"This deal lets Quest continue to grow, expand our operations, add talented team members, and most importantly create additional value for our customers."

Anderson added: "The latest PMMI research shows nearly 30% annual growth for robotic solutions within the food, beverage, and personal care industries.

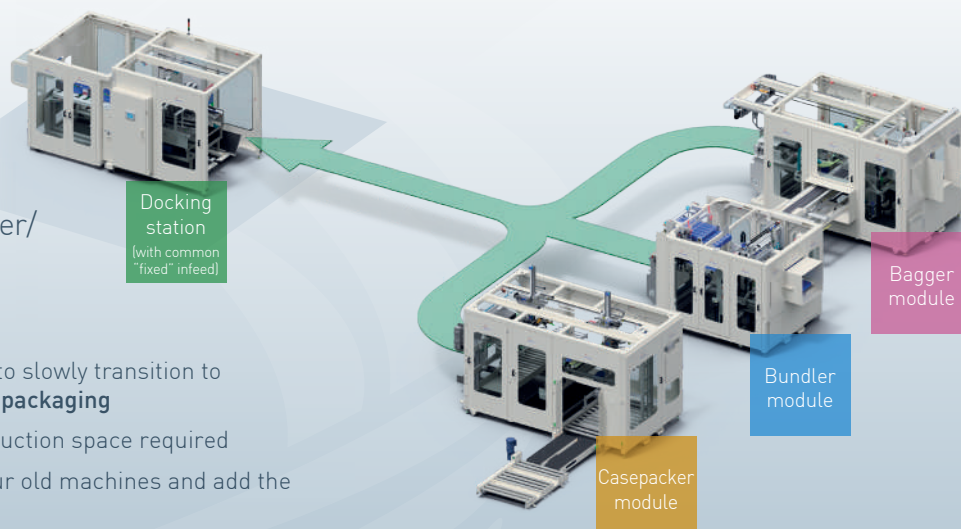
"The addition of Quest ensures we have best-in-class robotic solutions to help customers navigate and support this growth, combined with access to the entire ProMach portfolio of solutions to solve almost any packaging challenge, including integrated turnkey systems for complete packaging lines."

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- Allows producers to slowly transition to **100% sustainable packaging**
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## THE OMET INTELLIGENT PLANT IS A SYSTEM FOR COLLECTING, ANALYSING AND DISPLAYING PRODUCTION DATA THAT ALLOWS COMPANIES TO HAVE ALL INFORMATION ABOUT THE MACHINE'S ACTIVITY EVERY TIME AND EVERYWHERE. ALL DATA IS STORED CONTINUOUSLY IN INTERCONNECTED AND SECURE DATABASES THAT CAN BE QUESTIONED REAL TIME.

### OMET launches Industry 4.0 Intelligent Plant

OMET has launched its new software developed for production control, which allows real-time connection with any OMET machine, anywhere installed in the world, for data collection and analysis. The supplier said this allows its clients to make "a qualitative leap" due to the continuous monitoring, precision diagnostics, remote control and process optimisation.

The OMET Intelligent Plant is a system for collecting, analysing and displaying production data that allows companies to have all information about the machine's activity every time and everywhere.

All data is stored continuously in interconnected and secure databases that can be questioned real time.

The platform is web-based, safely reachable from any device connected to the company network, and compatible with all major operating systems.

OMET has also set up an interface that displays clear and intuitive graphical information about the most important parameters useful to evaluate the machine work. It said the development of this software "answers both to the global trend towards industry 4.0 and to the high request of this kind of data from the market".

### AstenJohnson and Heimbach to merge their PMC businesses

AstenJohnson and Heimbach shareholders and boards are in negotiations to merge the Paper Machine Clothing and Advanced Fabric businesses of both companies.

Together they employ over 3,400 employees globally, with manufacturing facilities in North America, Europe and Asia.

The merger is subject to further due diligence and approval by competition law authorities and is expected to close in the second half of 2019.

The Heimbach Technical Textiles and Filtration businesses and the AstenJohnson Eagle Nonwovens and Foss Performance Materials businesses will not be part of the transaction.

AstenJohnson and Heimbach have a lasting association as global partners in technology.

## FRANCE

### WEPA acquires Arjowiggins; boosts European private label and recycled papers presence

Germany's WEPA Group has taken over Arjowiggins Greenfield plant in Chateau-Thierry, France.

The company's WEPA Hygieneprodukte division has been awarded to take over the business activities of the Arjowiggins Greenfield plant in Chateau-Thierry, France.

The decision was made by the commercial court of Nanterre on 29 March 2019.

The Greenfield mill is part of the Graphic Paper division of the French Arjowiggins Group, which filed for insolvency along with its two sister companies in January 2019.

With 74 staff, the plant has a yearly production capacity of around 130,000 tonnes of de-inked pulp for various applications such as graphic paper and tissue. Martin Kregel, chief executive of the WEPA Group, said: "As a family business we have an overall sustainable orientation and the use of recovered paper is an essential component of our raw material strategy."

"With the takeover of the Greenfield mill we further strengthen our position as a European private label tissue specialist and as a market leader in the field of recycled papers.

"In addition, we ensure our long-term supply with de-inked pulp."

The WEPA Group is the third largest supplier in the European tissue market with an annual turnover of around €1.2bn.

It employs around 3,800 people at twelve locations throughout Europe, including two plants in France with about 700 employees. It also has a sales office in Chicago, USA.

## ASIA PACIFIC

### Kemira announces sizing technologies price hike

Kemira is to increase the price for its sizing technologies in the Asia Pacific region.

The price increase of FennoSize ASA will be an average of 15-25% and will be effective immediately or as contracts allow.

The company said the hike is "triggered by continuous cost increases of raw materials, energy and logistics, regulatory compliance requirements combined with limited availability of key raw materials which are used in the manufacturing of these technologies".

## CANADA

### Cascades to close two tissue PMs

Cascades has said it will close two of its tissue paper machines located in Whitby and Scarborough, Ontario.

The end date of the production remains to be determined. In total, the sites produce 44,000 tonnes of tissue paper annually and employ 68 workers.

Jean Jobin, president and chief operating officer of Cascades Tissue Group, said of the two paper machines that "their unprofitability and the current market conditions have convinced us that it is better to source externally to supply our needs".

"It is important to note that this decision will have no impact on our ability to serve our customers."

Over the coming months, the company will try to relocate as many of its employees as possible to its other business units located in the region.

**CASCADES HAS SAID IT WILL CLOSE TWO OF ITS TISSUE PAPER MACHINES LOCATED IN WHITBY AND SCARBOROUGH, ONTARIO. THE END DATE OF THE PRODUCTION REMAINS TO BE DETERMINED. IN TOTAL, THE SITES PRODUCE 44,000 TONNES OF TISSUE PAPER ANNUALLY AND EMPLOY 68 WORKERS.**



### TISSUE WORLD

#### São Paulo

**22 - 24 October 2019**  
Tissue World São Paulo  
Transamerica Expo Center  
São Paulo, Brazil

### TISSUE WORLD

#### Miami

**11 - 13 March 2020**  
Tissue World Miami  
Miami Beach Convention Center  
Miami, Florida, USA

### TISSUE WORLD

#### Istanbul

**15 - 17 September 2020**  
Tissue World Istanbul  
Istanbul Congress Center  
Istanbul, Turkey

### TISSUE WORLD

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### TISSUE WORLD

#### Bangkok

**3 - 5 June 2020**  
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Built on 26 years of history, Tissue World covers the entire tissue value chain, from raw material suppliers, finished product manufacturers, jumbo roll makers, converters, traders to paper machinery makers, packaging equipment suppliers and many more. Tissue World trade shows and conferences currently take place across 5 cities: São Paulo, Milan, Miami, Bangkok and Istanbul.

Tissue World is also the publisher of Tissue World magazine, the independent news provider for the global tissue business.





**Papel San Francisco and Valmet start-up crew, l-r:** Jan Erikson (Valmet), Dario Palma y Meza (PSF), Julio Rodriguez (PSF), Jan Larsson (Valmet), Fernando De La Torre (PSF), Enrique Zarate (PSF), Anders Lorentzon (Valmet) and Jose Luis Emanuel Garcia (PSF).

## MEXICO

### Papel San Francisco boosts capacity

Papel San Francisco has invested in an Advantage DCT 100TS tissue production machine at its site in Mexicali.

Supplied by Valmet, start-up is planned

for the third quarter of 2020 and will increase the company's standard tissue production capacity by 30,000tpy.

It will have a width of 2.8m and a design speed of 2,200m/min, and the scope of delivery will comprise an Advantage DCT 100TS tissue machine.

The machine will be equipped with

OptiFlo headbox and cast alloy Yankee cylinder.

Papel San Francisco was also the first company to start up an Advantage NTT line in 2013.

Dario Palma y Meza Espinoza, operational director, Papel San Francisco, said the line is "the most efficient and best choice" for the grades it needs to produce.

"It is also in our philosophy to go for low energy consumption and lowest possible emissions to air and water.

"With this new tissue line, we expect to achieve the best tissue quality combined with lowest energy consumption."

### Grupo Corporativo Papelera boosts capacity

Grupo Corporativo Papelera has invested in an iDEAL Forged\_YD – 16" Yankee Cylinder.

The new state-of-the-art Yankee has been shipped to Mexico and will be installed at the company's El Tepetloxtot plant.

IDEAL forged YD is a new production technology that has been produced and patented by A.Celli Paper.

Its supplier said the machine allows companies to make cylinders with a seamless shell, starting from a single piece of steel that is shaped and worked with hot forging and rolling systems.



**Capacity increase:** Grupo Corporativo Papelera invests at its El Tepetloxtot plant.



## NIGERIA

### K-C increases capacity; closes current factory in Lagos

Kimberly-Clark (K-C) is to build a new factory in Nigeria and close its current factory in Lagos with the loss of 60 permanent employees.

The investment in the new plant came after the tissue giant experienced "a strong increase in demand" for its products.

The new factory will have "enhanced technology, and capabilities that can better serve its consumers".

The company said the decision was made "following a strategic review of its business model with the objective of increasing presence and further investments in Nigeria in the near future".

"Regrettably, the decision means that, for now, some 60 permanent employees have been made redundant.

The current factory will be close in the second quarter of 2019.

K-C added it "remains fully committed to the Nigerian market", where it will expand its commercial team and open an additional office in Lagos during 2019.

It said: "Every day our brands are used by consumers to enhance their health, hygiene

and well-being.

"As a respected company with established relationships in Nigeria, we are aware of the impact this closure may have and of our responsibilities towards our workforce.

"It is a responsibility we take very seriously and we are working to ensure our employees are supported as much as possible during this difficult time."

## SCOTLAND

### Fourstones boosts capacity with TM investment

Fourstones Group is understood to have invested in a tissue machine at its Sapphire mill. The line has been supplied by China's Weifang Hicredit Machinery.

It has a trim width of 2.75m, a design speed of 1,800m/min and a capacity of 80 metric tpd. It is scheduled to be delivered in September 2019.

In addition to the Sapphire site, Fourstones also operates the South Tyne mill, which produces 7,000 metric tpy of tissue. The company was unavailable for comment.

## AMERICA

### K-C invests \$120m in Oklahoma site

Kimberly-Clark Corporation (K-C) has announced building expansion and new equipment plans worth \$120m for its facility in Jenks. The project will expand the site by 270,000 square feet as well as add new assets for the manufacture of its Kleenex folded tissue products and Scott bath tissue. It is expected to be completed in 2020.

The mill currently manufactures the company's Cottonelle and Scott bath tissue products as well as Scott and Viva towels.

Kirk Linna, Jenks plant manager, said: "We are excited to increase Jenks' manufacturing capacity and set up our operations to better support Kimberly-Clark's objectives to grow and remain a top competitor in the North American market.

"We are also thankful for the support of the state of Oklahoma and Jenks community along the way."

The facility expects to create more than 50 full-time jobs.

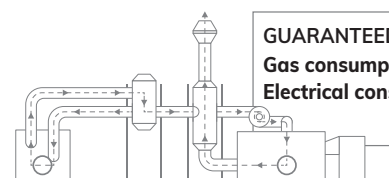


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# INITIAL VOLATILITY LINKED TO POST-BREXIT TRADE RELATIONSHIPS 'UNLIKELY' TO BE REFLECTED IN UK TISSUE FUNDAMENTALS

Imports equate to approximately 38% of Britain's tissue consumption. Most of its fibre is non-EU supplied, and parent rolls and advanced process finished products could look to Turkey and the US to replace France and Italy.

**T**he tissue business in the United Kingdom is part of machine-made paper manufacturing's oldest history. The modern papermaking era started in the UK with the Fourdrinier brothers of London purchasing the continuous paper-making machine patent from French inventor Nicholas Robert.

Over time, UK residents have developed preferences that are unique but include some attributes of continental Europe and North America. Analysis of apparent tissue consumption shows UK tissue consumers used about 18kg/capita of tissue in 2016, up from about 13.5kg/capita in 2007. This cumulative average growth rate (CAGR) of 3.7% in consumption reflects the improved economy in the UK in the past ten years. While this rate leads users in Western Europe, it is lower than that of North America, indicating there is still room to grow if the economy continues its course.

The elephant in this room is Brexit as preparation of this report was done before the late March deadline, which has since

been extended until 30 June 2019. With this uncertainty in mind, we will focus on the fundamentals of the UK's tissue business and consumption, and then suggest the potential implications of various scenarios.

The region has enjoyed a strong economic recovery as shown in Figure 1. The blue curve shows the -6.5% CAGR reduction in unemployment starting in with the recovery in 2009 that corresponds to the green curve which shows GDP growth of 2.3% CAGR. These numbers are somewhat better than the experience of continental



**Bruce Janda**  
Senior consultant, Fisher International

OVER TIME, UK RESIDENTS HAVE DEVELOPED PREFERENCES THAT ARE UNIQUE BUT INCLUDE SOME ATTRIBUTES OF CONTINENTAL EUROPE AND NORTH AMERICA. ANALYSIS OF APPARENT TISSUE CONSUMPTION SHOWS UK TISSUE CONSUMERS USED ABOUT 18KG/CAPITA OF TISSUE IN 2016, UP FROM ABOUT 13.5KG/CAPITA IN 2007. THIS CUMULATIVE AVERAGE GROWTH RATE (CAGR) OF 3.7% IN CONSUMPTION REFLECTS THE IMPROVED ECONOMY IN THE UK IN THE PAST TEN YEARS.

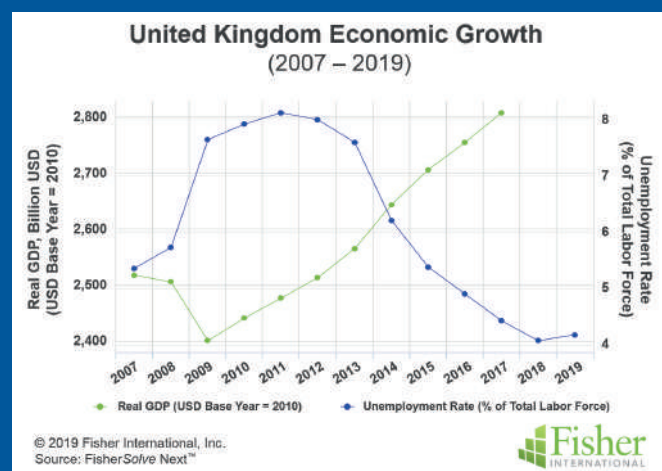


Figure 1

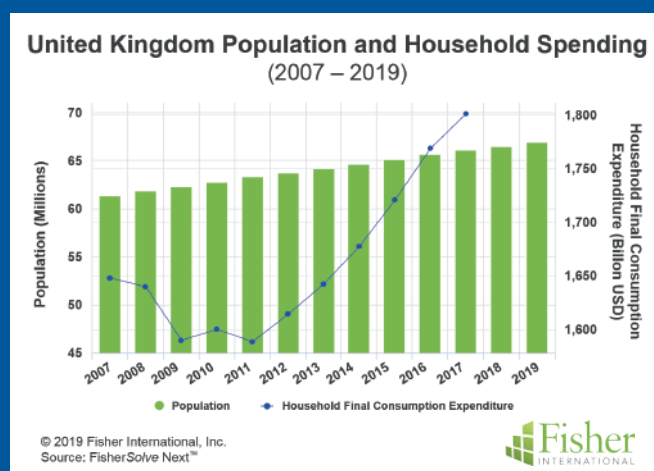


Figure 2



Western Europe and provide a basis for understanding the increased per capita tissue demand over the same period.

Figure 2 shows the population growth and household consumption expenditures for the United Kingdom in the relevant periods. UK population growth from 2009 to 2019 at CAGR of 0.8% was slightly higher than France or Germany. Household expenditures grew slightly faster at a CAGR of 1.8% over the same period.

Figure 3 compares the relative value of the British Pound versus the Euro and the average consumer price index for the United Kingdom in the period from 2007 to 2017. Consumer prices, indicated by the green line, showed a steady but slow increase since 2009 resulting in a CAGR of 2.5%. The blue line shows the relative value of the British Pound versus the Euro over the same period. This data does not show the same clear recovery trend of the previously discussed statistics. The relative value of the Euro rose close to the value of the British Pound in 2009 and 2017. The British Pound value has remained at this lower range with slight recovery shown in early 2019.

The United Kingdom tissue business consists of both domestic manufacturing, significant imports, and limited exports. The trade flow summary for 2018 data is shown in Figure 4. Tissue exports from the UK include converted finished toilet tissue, and some parent rolls. Ireland is a key customer of the toilet tissue. Imports to the UK include facial tissue and towel. Notable finished product imports are TAD kitchen towels from France. Most of the tissue imports to the UK are in the form of parent rolls for converting

**THE UK IMPORTS APPROXIMATELY 38% OF ITS TISSUE CONSUMPTION WHICH HAS TENDED TO SLOW ADDITIONS OF DOMESTIC CAPACITY. INCLUDING NEW PROJECTS UNDERWAY FOR 2019, THE TOTAL NUMBER OF TISSUE MACHINES OPERATING WILL STILL DECREASE BY ONE FOR THE PERIOD 2007 TO 2019.**

closer to the market. Turkey is the major source of parent rolls with additional materials coming from Italy. The net trade effect is almost 500,000 tonnes per year of tissue moving into the region, versus about 830,000 tonnes of local production. As a result, the UK imports approximately 38% of its tissue consumption which has tended to slow additions of domestic capacity. Including new projects underway for 2019, the total number of tissue machines operating will still decrease by one for the period 2007 to 2019.

The tissue product mix shown in Figure 5 represents the domestic production mix. Consumption of towels is somewhat higher due to imports from both France and Italy. This adjustment would bring UK product consumption mix more in line with other developed countries in usage of paper kitchen roll towels. Commercial or AfH grade volumes are in line with other Western European countries and somewhat below that of North America.

Tissue production is heavily dependent on imports of fibre. Figure 6 shows the percent of fibre purchased for tissue production

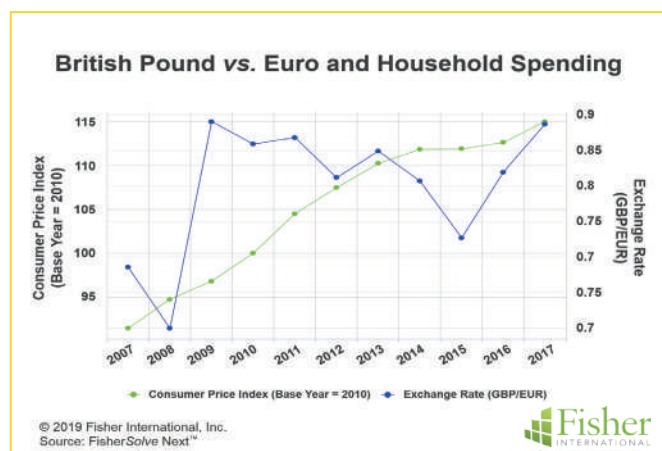


Figure 3

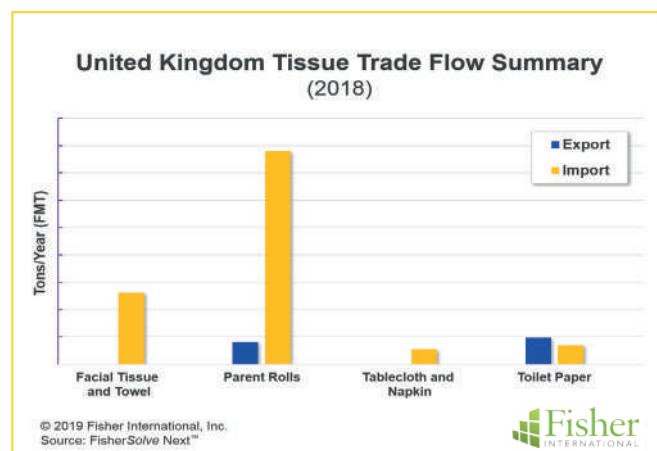


Figure 4

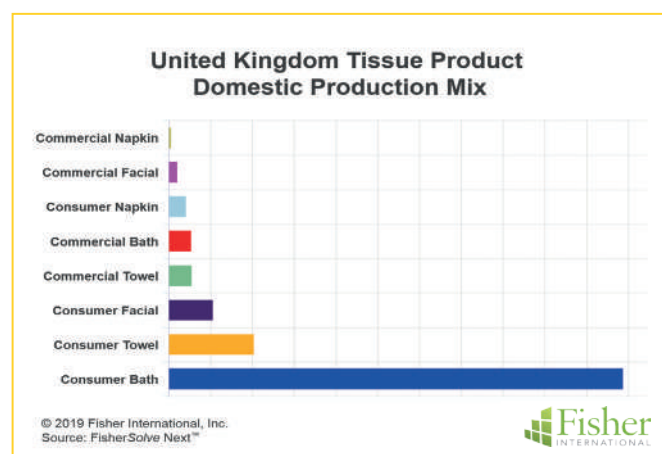


Figure 5

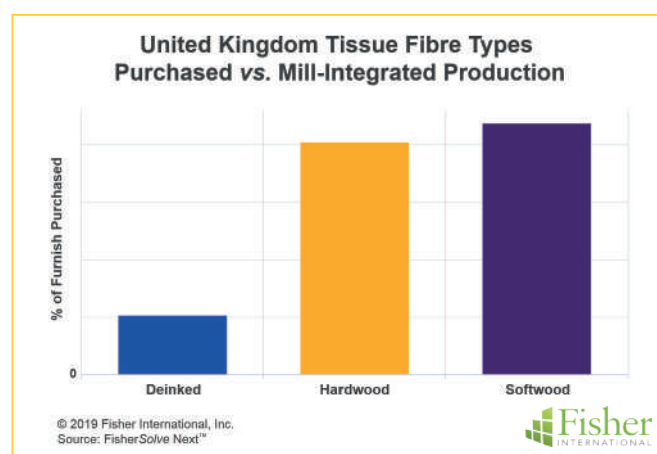


Figure 6

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## THE REGION'S HIGH RELIANCE ON TISSUE IMPORTS, ESPECIALLY IN THE FORM OF PARENT ROLLS, REQUIRES COMPARISON TO EXISTING AND POTENTIAL NEW TRADE PARTNERS AS THE NEW UK TRADE PLAN UNFOLDS. A COMPARISON SET INCLUDING TURKEY, ITALY AND POLAND WAS CHOSEN TO REPRESENT THE CURRENT TRADE PARTNERS (TURKEY) AND EUROPEAN UNION (ITALY AND POLAND).

by type. Almost 90% of softwood used for tissue production is purchased and brought to the tissue mill site. Hardwood fibre is 80% purchased. Deinked fibre is mostly made on-site with only 20% purchased.

Specialty tissue is all based on deinked fibre while commercial tissue is about 65% deinked fibre. The retail tissue grades have a much higher dependence on imported purchased virgin fibre. The limited integration of fibre and tissue production is the area of greatest cost risk for the UK tissue business. BCTMP pulp used in retail products is an attempt to reduce this cost. Presumably, this is used in kitchen towels where the increased bulk and absorbency associated with this hybrid fibre are appreciated versus the probable loss of softness.

The area has several TAD or advanced structure tissue machines. Figure 7 shows the distribution of advanced tissue technology by tissue grade. Surprisingly, the commercial tissue grades show about half of the product volume uses advanced technologies. This is most likely driven by high performance hand towels used in

health care and high-end office and hospitality applications. The advanced technology shown for retail grades is associated with high end toilet tissue and kitchen roll towels. This chart is based on the production volumes within the UK. The proportion of advanced technology would probably rise if the imported finished products from France and Italy are included.

The region's high reliance on tissue imports, especially in the form of parent rolls, requires comparison to existing and potential new trade partners as the new UK trade plan unfolds. A comparison set including Turkey, Italy and Poland was chosen to represent the current trade partners (Turkey) and European Union (Italy and Poland). Also included are the North American tissue manufacturing countries as potential trade partners.

Figure 8 shows that tissue production costs are on the low range when expressed on a per tonne basis. Figure 9 shows the effect of changing the cost curve to a case basis which shows the potential impact of advanced structured tissue technologies to offer higher performance at lower basis weight or grammage. This effect could make North American tissue production more cost effective because of the high percentage of advanced machines available.

Figure 10 shows a future look. Mill viability looks at a weighted average of risks due to equipment, costs, fibre sourcing, and company structure. The older and mostly non-integrated UK mills rank poorer on this scale.

Uncertainty continues to build regarding the future structure of trade relationships. Initial volatility associated with this uncertainty is unlikely to represent the fundamentals of the UK tissue business.

Fundamental supply effects can be judged by looking at current trade in raw materials, and finished goods. The United Kingdom is

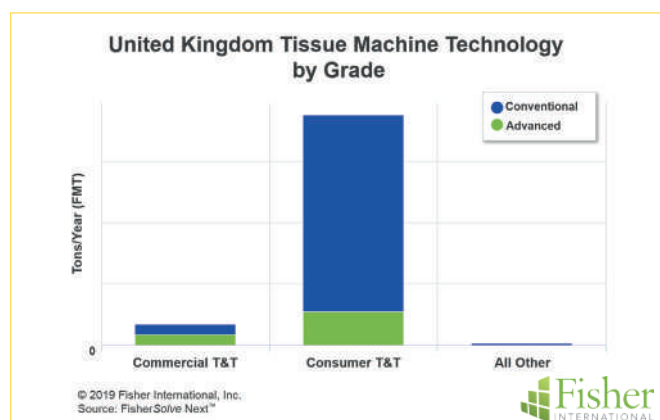


Figure 7

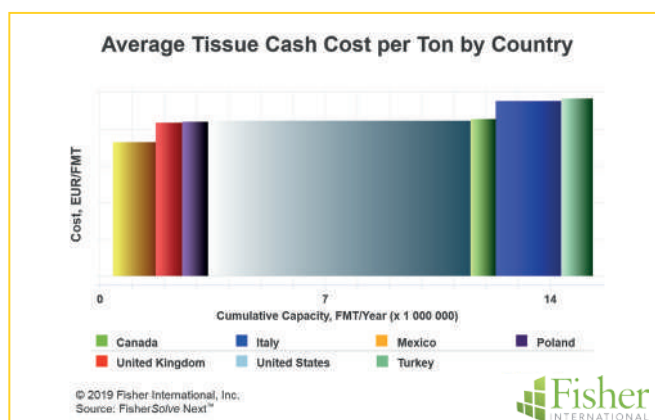


Figure 8

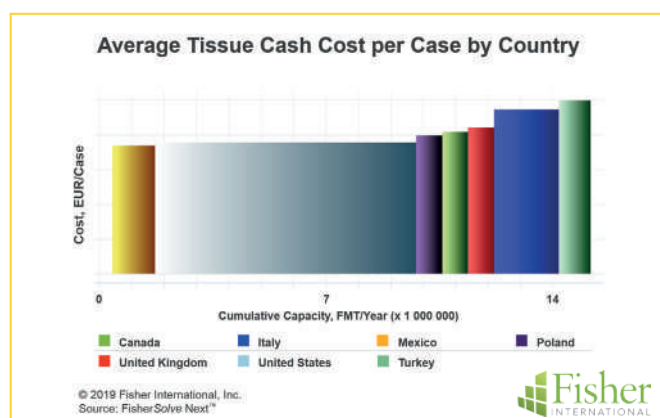


Figure 9

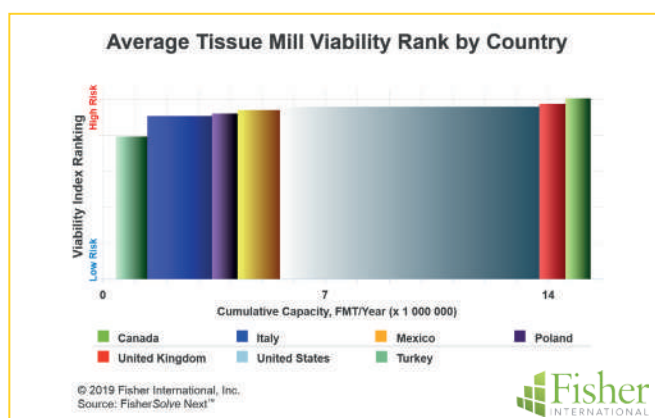


Figure 10



dependent on imported fibre. Most of the fibre purchased now is outside the European Union. Little change is expected here. The parent roll imports from Turkey also represent a major fibre input. This relationship is also unlikely to change if the UK leaves the EU. Additional tissue parent rolls and advanced tissue process finished products could also be imported from North America to replace imports from France and Italy.

The domestic tissue industry supply has tended not to keep up with demand growth. More machines have come out than have been installed. This difference has been made up by increasing imports, mostly of parent rolls. Will the potential effects of Brexit make building new capacity more or less likely?

On the demand side, the United Kingdom has enjoyed better economic growth since 2008 than its European Union trading partners. Tissue consumption per capita has been rising to meet the

higher rates of Western Europe. Population growth was supported by immigration due to job availability. It is unclear how much these trends will be impacted in the long-term by leaving the European Union trade regime. It is likely to stall some of the demand growth rate in the short to medium term. This is probably the highest risk of Brexit.

This article presents a static picture summary of the United Kingdom's tissue industry today. It is not possible to predict all the effects of Brexit on the tissue business, as the net results are unclear at this point. Fibre prices, exchange rates, and environmental regulations will change, giving some participants advantages and other challenges. Tissue companies will continue to change hands and perhaps consolidate; neighbouring countries may invest in tissue-making capacity thus affecting UK imports.

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Fisher International, by virtue of its deep expertise in the pulp and paper industry, provides insights, intelligence, benchmarking, and modeling across myriad scenarios. By arming companies with the knowledge that will help them gain a better understanding of their strengths and help identify weaknesses, Fisher is helping businesses stave off challenges and better position themselves for long-term growth. For more information, visit [www.fisheri.com](http://www.fisheri.com), email [info@fisheri.com](mailto:info@fisheri.com) or call +1 203.854.5390 (USA)

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# SURGE IN E-TAILING AS UK CONSUMERS EMBRACE TECHNOLOGY FOR TISSUE

With a high level of market penetration a challenge for organic growth, the industry looks for new revenue streams to reach unmet potential at 93,000 tonnes – US\$500m of sales.

**D**emand for consumer tissue in the UK is largely shaped by core fundamental factors, such as market saturation, general commodity status of the products, population trends, the macroeconomic situation and political headwinds. In 2018, retail sales of tissue products in the country saw a drop in volume terms of nearly 1% and are projected to remain mainly flat overall through 2023.

## Risks and challenges

Retail consumer tissue in the UK already has high levels of per capita consumption and is generally seen by many consumers as a commodity product. In 2018, per capita consumption of retail tissue in the country stood at 10kg, on total volume of consumer tissue sold to consumers at 672,000 tonnes, or USD2.5bn. Euromonitor International's forecast model estimates that the country's

unmet potential stands at about 93,000 tonnes, or about USD500m in incremental sales.

The high level of market penetration in the UK is a challenge to driving organic volume growth, unless the country sees significant population growth going forward. This, however, is not the case. In fact, population growth in the UK is expected to slow down further to about 0.6%-0.5% annually through 2023, while birth rates are projected to decline every year going forward by nearly 1%.

In addition to challenges to organic volume growth, there are also challenges to revenues. While price increases are being discussed and negotiated by a number of tissue suppliers to the market to offset high input costs, pricing pressures on final retail price remain strong, stemming also from competition and pressure from private label. In 2018, private label accounted for



**Manon Quilleré**  
Research analyst,  
Euromonitor International

43% of retail tissue sales in the UK.

Adding to pressure is the expansion of key e-tailers like Amazon in private label. In 2017, Amazon launched its own label line of tissue products called Presto. It is likely that as voice control devices such as Amazon Echo gain further traction in the market and

UK, Retail Tissue, Volume, '000 tonnes, % Year-on-Year Growth

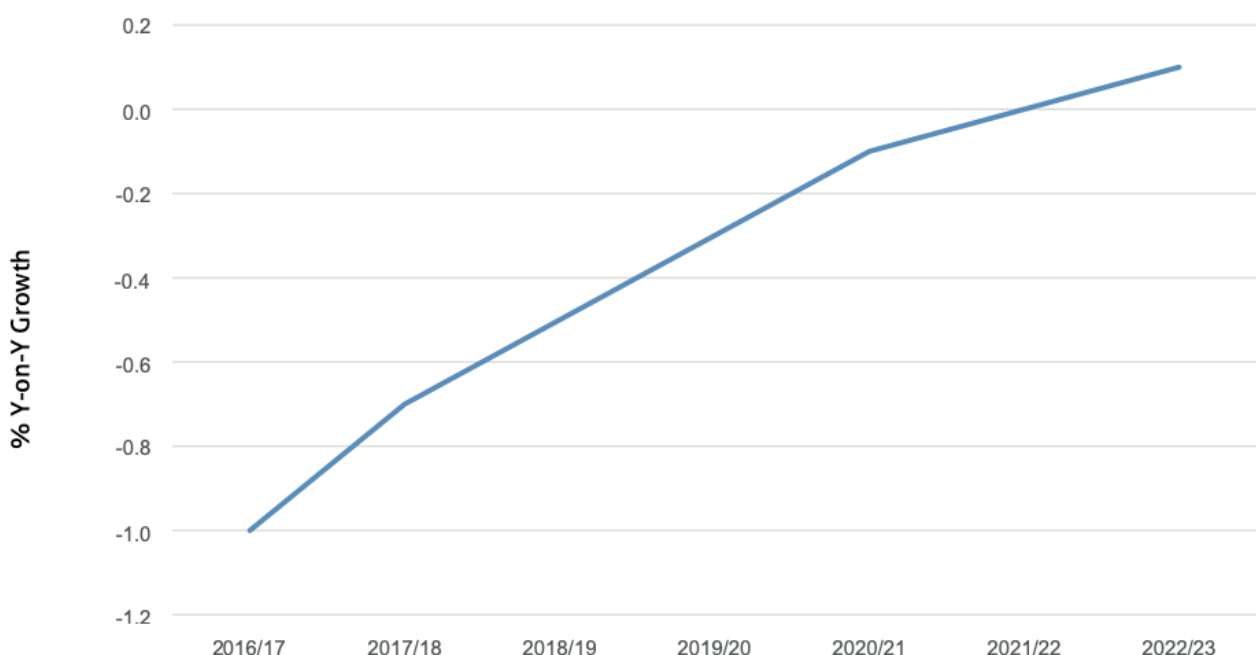


Table 1: UK, Retail Tissue, Volume, '000 tonnes, % Year-on-Year Growth



consumer adoption widens, they will likely directly suggest Presto products when consumers order tissue. Between 2016 and 2018, retail sales of Amazon Echo skyrocketed in the UK, attesting to rapid adoption by consumer and the use of the technology.

The continuing economic uncertainty is an important factor supporting demand for competitively priced products, as many consumers, especially in lower income segments of the population, are less inclined to splash out and look for cost efficiencies to offset potential financial setbacks and/or respond to price increases due to supply chain challenges. The latter are also a concern in view of the ongoing threat of a no-deal Brexit, especially since tissue industry sales in the UK rely heavily on imports. Euromonitor's industry forecast model and no-deal Brexit scenario are expected to have a marginal negative impact on retail sales, with estimated reduction in expected sales by about 6,000 tonnes, or USD33 million. However, in the conditions of already sluggish sales, every additional loss would not be welcome news.

### Pockets of growth and opportunities

Despite multiple challenges, there are some growth opportunities for companies with innovative strategies, being categories, product development, alternative fibres, and/or brand communication.

Sustainability is likely to become a major focus for both consumers and manufacturers during the forecast period. On the one hand, modern day consumers are becoming more considered in their product choices and increasingly interested in buying ethical goods if they are priced within an affordable range. They are also increasingly looking at traceability of products and raw materials and wish to avoid product waste. On the other hand, companies often turn to sustainability also as a cost-efficient manufacturing practice, with reduction in input costs.

Some initiatives related to sustainability and ethical living have already been evolving in Western Europe. In the UK, a number of consumer tissue products with sustainability and ethical living messaging have been growing successfully. For instance, Cheeky Panda – a manufacturer of bamboo-based tissue products started off with a small base and limited retail distribution, principally online and in specialist retailers like Whole Foods. The company, however, has seen good growth and expanded its distribution to

**SOME INITIATIVES RELATED TO SUSTAINABILITY AND ETHICAL LIVING HAVE ALREADY BEEN EVOLVING IN WESTERN EUROPE. IN THE UK, A NUMBER OF CONSUMER TISSUE PRODUCTS WITH SUSTAINABILITY AND ETHICAL LIVING MESSAGING HAVE BEEN GROWING SUCCESSFULLY.**

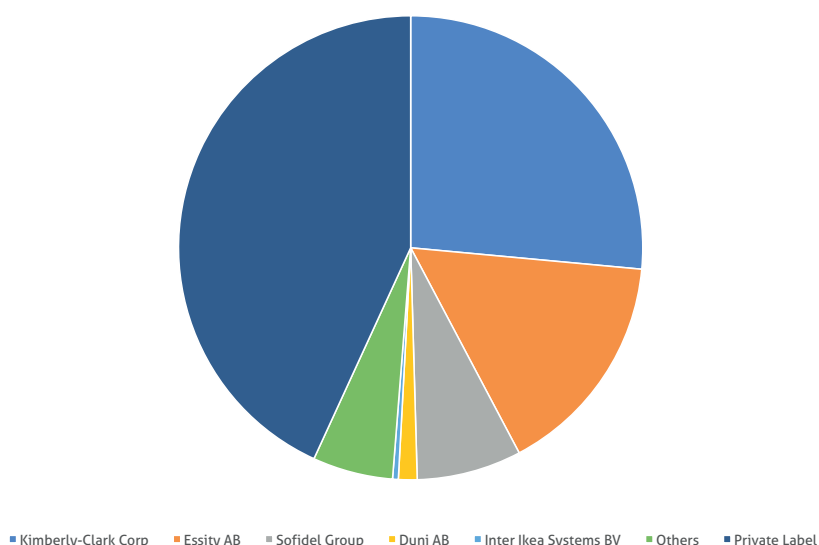
mainstream retailers like Booths and Morrisons, to name a few, as well as expanded beyond the borders of the UK.

Last but not least, e-commerce continues to gain traction in the country. Besides competitive prices, consumers are increasingly looking for convenience and practicality when buying tissue products on the internet. This is particularly true for urban consumers living fast-paced lifestyles and looking for time-saving solutions.

Within e-commerce, subscription services have also been gaining traction on the market. Furthermore, subscription boxes offering sustainable products and strong ethical messaging have seen growth. One example includes subscription box Who Gives a Crap. Originated in Australia, this company has grown its presence beyond Australia, including the UK. It offers a line of premium positioned products made with 100% bamboo fibres as well as recycled tissue products. The company also has strong ethical messaging besides saving trees and donates half of its profits to help build toilets in developing markets. The importance of sanitation, such as clean toilets, cannot be overstated in combatting health and poverty issues in developing countries.

To conclude, volume growth in the UK will remain largely dependent on population and socioeconomic factors such as GDP. As those two factors will remain on the agenda in the coming years, and as private label continues to put pressure on prices, volume and value growth of consumer tissue are set to struggle overall in the next five years in the country. These tendencies, however, put even more spotlight on innovation in terms of products with tangible benefits, packaging, and distribution strategies. These include e-commerce and omnichannel strategies, as well as more focus on environmentally friendly products with strong ethical positioning.

**Table 2: UK, Retail Tissue, Company Shares, % Value Share, 2018**



# THE BREXIT VOTE HAS MEANT INCREASED DEMAND FOR POPPIES EUROPE

With up to 10 million napkins produced per day, the Northern Powerhouse company is the UK's market leader in the printed napkins sector. TWM Senior Editor Helen Morris went to meet the team.



**Above:** Armindo Marque, Partner and technical director

**AS AN INDEPENDENT MARKET LEADER, POPPIES HAS CREATED A STRONG NICHE FOR ITSELF IN THE PAPER TABLEWARE MARKET AND HAS BEEN OPERATING IN THE SECTOR OF FOOD, BEVERAGE AND HYGIENE DISPOSABLE PRODUCTS SINCE 1996. THE POPPIES BRAND NAME WAS CREATED IN 2002 AND, IN 2010, THE COMPANY TOOK ON THE NAME "POPPIES EUROPE".**

**W**e are sitting around the office table at Poppies Europe's facility in the north-west of England. No less than six directors, a record turnout of top personnel for a TWM visit, are demonstrating the rich mix of knowledge, backgrounds, attitudes, experience, and – this being a football heartland – a lot of club rivalry and banter.

It's a big hint as to how the company likes to do business ... we might call it controlled attacking flair with solid defence.

We meet at their impressive six-acre plant located in St Helen's, around an hour's drive from the industrial hubs of the 'Northern Powerhouse' cities of Manchester and Liverpool, a cluster of cities in the heart of 'the North' that together form an economy almost equal to that of London.

The company manufactures and supplies napkins, printed napkins and additional disposable table top products under the Poppies brand name as well as bespoke own-label products, mainly for the AfH catering and retail sectors. As an independent market leader, it has created a strong niche for itself in the paper tableware market and has been operating in the sector of food, beverage and hygiene disposable products since 1996. In 2000, it started investing in the converting of napkins when it launched its first production line. The Poppies brand name was created in 2002 and, in 2010, the company took on the name "Poppies Europe".

During the past seven years, it has also bought out two of its main competitors - McNulty Wray was acquired in 2012, and Staples Away From Home was purchased in 2015, and both have been successfully integrated into the company's production facility.

McNulty Wray was one of the first UK manufacturers of bespoke printed napkins and its historic brand was established 30 years ago and has been maintained

by Poppies. It produces bespoke printed napkins for hotels, restaurants and hospitality events, from 1ply dispenser for bar and fast food markets to premium airlaid for up-market venues. Staples Away From Home was the AfH division of Staples Disposables, a UK manufacturer with over 40 years of supplying hygiene tissue and catering products. The brand is now used for the Poppies' hygiene tissue, including centrefeed, mini jumbo and facial tissue, and its acquisition expanded Poppies' product offering to enable it to become a market leader.

The company has also grown organically, and significant investment has been made on new production lines, most recently in 2018 with the purchase of two high capacity twin lane OMET napkin lines to complement the existing 13 OMET lines already on site and seven Servotec's producing high quality print. There are now 34 production lines and 169 staff, and the site is also home to the largest fleet of modern napkin printing machines in the UK.

Partner and technical director Armindo Marques takes TWM for a tour around the facility. He says the acquisitions and machinery investments were the direct result of a need from its customers to have a 'One Stop Shop' supplier, and the pressure on the manufacturer to always find synergies and efficiencies in order to remain competitive: "Our growth has mainly come from acquiring divisions from the bigger players," he adds. "In the UK, the focus of the big tissue producing groups has moved away from napkins. It is a very tough market because it requires a lot of flexibility and attention to detail. It is very specific. But this development has opened up opportunities for us to expand."

Originally from Portugal, Marques lived in Paris for 14 years before moving to St Helen's in 1999. He says that during that time, the AfH sector in the UK has undergone a lot of development. While









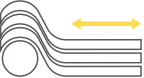
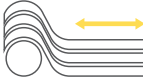
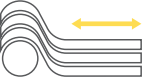
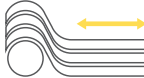





## GAMBINI'S FLEX LINES

THE BEST ROLLS WITH A  
REVOLUTIONARY EMBOSSING  
TO SAVE ON RESOURCES



Gambini's Flex Lines allow to get results never achieved before in converting. The unique and revolutionary embossing system, resulting from the combined use of **AirMill** technology with the quick changeover embosser **TouchMax**, optimizes the **Shape Memory Embossing Technology**, while allowing to produce tissue rolls with amazing benefits compared to the standard ones.

| BATHROOM ROLL TISSUE PAPER                                                          |                                                                                     |                                                                                     |                                                                                      | KITCHEN TOWEL TISSUE PAPER                                                            |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>+30% thickness</b>                                                               | <b>-25% paper</b>                                                                   | <b>+15% diameter</b>                                                                | <b>-10% fibers</b>                                                                   | <b>+15% absorbency</b>                                                                | <b>+40% strength</b>                                                                  |
|  |  |  |   |  |  |
| Same paper                                                                          |                                                                                     | Same paper                                                                          | Same paper                                                                           | Same paper                                                                            |                                                                                       |
|  |                                                                                     |  |  |  |                                                                                       |
|                                                                                     | Same diameter                                                                       |                                                                                     | Same diameter                                                                        | Same diameter                                                                         |                                                                                       |
|                                                                                     |  |                                                                                     |   |  |                                                                                       |

Come to test AirMill on **G4U Pilot Line** at **TissueHub**, the new Gambini's Technology Development Center.  
Book your trials at: [marketing@gambinipa.it](mailto:marketing@gambinipa.it)



A photograph of a white cup of coffee on a white saucer, set on a light-colored wooden surface. In the foreground, a brown paper napkin with a decorative border and a recycling symbol is placed. On the napkin, two chocolate chip cookies are shown, one of which is broken into two pieces. The background is softly blurred, showing a string of cookies tied together with twine.

MCNULTY WRAY WAS ONE OF  
THE FIRST UK MANUFACTURERS  
OF BESPOKE PRINTED NAPKINS  
AND ITS HISTORIC BRAND WAS  
ESTABLISHED 30 YEARS AGO  
AND HAS BEEN MAINTAINED BY  
POPPIES. IT PRODUCES BESPOKE  
PRINTED NAPKINS FOR HOTELS,  
RESTAURANTS AND HOSPITALITY  
EVENTS.

*The Secret of  
great Coffee is  
its freshness.*



historically it has been very challenging due to the fierce price competition, the market has also consolidated with many operators integrating through the acquisition of competitors.

"We have a long-term focus and have invested heavily," he adds. "We are now the biggest producer for this market in the UK. It is a market that needs a high level of service, coupled with a consistent product which is of high quality. It is still a commodity product, as well as a niche product, but it's produced at an industrial volume. So it has to be perfect."

The UK AfH napkin market is still "very, very segmented". "It requires a lot of focus. Everyone wants something a little bit different, and it's the ability to respond well to this that has made us such a great success."

The company now converts 15,000 tpy, and over 10 million napkins per day. "The market is mature and has consolidated, although we're still seeing a small increase every year," he adds.

Is there overcapacity for this sector in the UK? "It's mature," Marques says. "But we have a different market share from the big international tissue players in the UK ... and a different strategy. They always have to chase added-value products, whereas

**ONE MAIN ASPECT OF UK LIFE THAT IS BENEFICIAL TO THE COMPANY IS THAT BRITS LIKE TO EAT OUT. 'THAT'S KEY FOR US. THERE'S A SUSTAINED DEMAND BECAUSE GOING OUT TO EAT IS ALWAYS POPULAR, IT'S THE BRITISH 'FEEL GOOD FACTOR'. I CAN'T SAY THE AFH NAPKIN MARKET IS RECESSION-PROOF, BUT THERE IS ALWAYS DEMAND REGARDLESS OF THE ECONOMIC SITUATION. UK RESTAURANTS ALWAYS HAVE NEW IDEAS, THERE IS A LOT OF INNOVATION AND DEVELOPMENT IN TRENDS.'**

we can cover both ends of the spectrum, the ability to manufacture a good honest commodity napkin along with innovative products.

One main aspect of UK life that is beneficial to the company is that Brits like to eat out: "That's key for us. There's a sustained demand because going out to eat is always popular, it's the British 'feel good factor'. I can't say the AfH napkin market is recession-proof, but there is always demand regardless of the economic situation. UK restaurants always have new ideas, there is a lot of innovation and development in trends."

At the moment, he says the company is seeing an increase in demand for bespoke printed napkins, and customers are also

switching away from napkin tissue to more premium products such as air-laid: "They see it as a more flexible and long-lasting option. Recycled products and unbleached products are also becoming more popular."

The UK-based discounter stores are also moving their image towards that of the more general supermarkets: "Aldi, Lidl ... they are not seen as much as discounter stores any more. They want to be seen as a more general retailer, and that is very good for us.

Another key challenge is pulp prices. He said that while they have been going up sharply in the last 18 months, they have recently levelled off a little: "We can only offset the pulp price hikes by operating even more leanly and improving our operational productivity. As for the



**Northern Powerhouse:** The Poppies Europe site in St. Helens, northern England





"We will focus on what we are able to control and strive to remain the best in the UK for lead time and flexibility."

**POPPIES HAS EXPERIENCED DOUBLE DIGIT GROWTH EVERY YEAR FOR THE LAST FIVE YEARS AND PART OF THIS GROWTH INVOLVES INVESTMENT IN MACHINERY: "WE'VE MADE £10M WORTH OF INVESTMENT IN THE LAST FEW YEARS," HE SAYS. "WE STRONGLY BELIEVE THAT THE NAPKIN MARKET WILL HOLD FOR THE NEXT COUPLE OF YEARS AND FOLLOWING THE BREXIT CONCLUSION WE WILL CARRY ON GROWING AT A STEADY PACE IN TO THE NEXT DECADE."**

future, it depends on china and the level of demand."

"We will focus on what we are able to control and strive to remain the best in the UK for lead time and flexibility. Poppies has worked a lot on service, our customers request it all on time and we take the order and two days later it's with the customer."

Let's not forget about the elephant in the friendly office room ... what about Brexit?

"Conversely, Brexit has actually opened a lot of doors for us," he says. Following Britain's vote to leave the EU two years ago, the company is seeing more demand for its products from retailers based in the UK: "That has been one of the benefits of Brexit. We are seeing a lot more demand from the big discounter stores and the big retailers for products from UK-based manufacturers. We've had a lot of new contracts recently. So, while the currency has definitely suffered, and that's the fear-

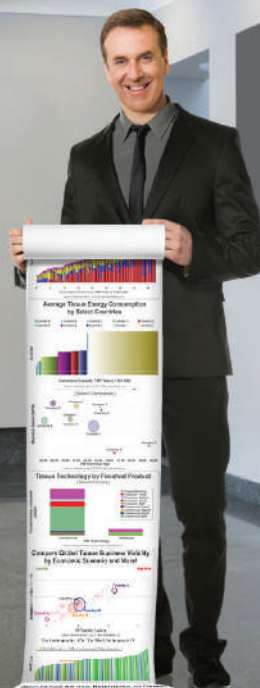
factor and uncertainty of what will happen, it has actually opened doors for us."

Poppies has experienced double digit growth every year for the last five years and part of this growth involves investment in machinery: "We've made £10m worth of investment in the last few years," he says. "We strongly believe that the napkin market will hold for the next couple of years and following the Brexit conclusion we will carry on growing at a steady pace in to the next decade."

And in the medium term? "We will keep investing in new production lines, napkins and hygiene to keep up with the demand and remain competitive. We can react very quickly. The success of our growth is down to service and capacity, that's where we invest. There's a clear plan for us: we're dominant in the napkins market in the UK and now looking more internationally. We are looking to expand via takeovers partnerships and other opportunities."



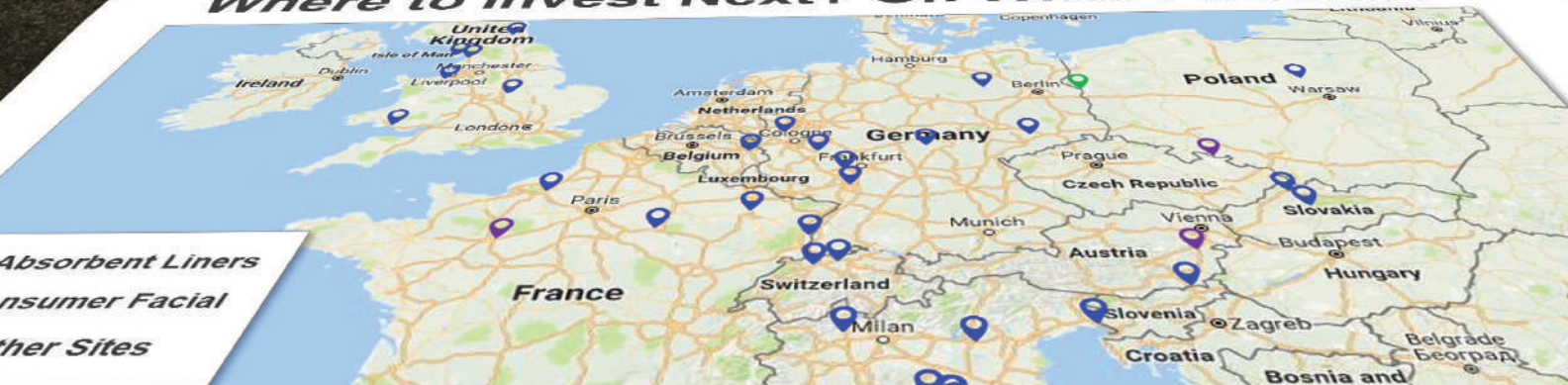
# Roll out the possibilities for your business.



Is My Tissue Mill at Risk of Closure? Why?  
**Compare Your Tissue Mill to Your Peers**

Cost Leadership

**Where to Invest Next? On What Product?**



Absorbent Liners  
Consumer Facial  
Other Sites

In the extremely capital-intensive tissue sector, both new and ongoing disruptors are changing the status quo. Skyrocketing pulp prices, increasing consolidation, the growth of e-commerce, and the potential explosion of tissue needs in underdeveloped countries are just some of the factors impacting the decisions you and your staff make every single day.

The ability to leverage these changing dynamics as opportunities depends upon having access to the intelligence your business needs to chart a smart, forward-thinking path. This is where Fisher International comes in.

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# “BREXIT WILL BRING ITS OWN CHALLENGES – WE ARE READY FOR THEM.”

With plans to build a crucial tissue mill in the UK in 2022, the family behind LPC – having once made its own exit from the industry – is now back and planning to double capacity. Report by TWM senior editor Helen Morris.



**Building blocks:** LTC's first purpose-built, national distribution centre, manufacturing facility and head office, based in Thurmaston, Leicester

**BY ITS 30TH ANNIVERSARY, THE COMPANY HAD BECOME A LEADING £300M TURNOVER MANUFACTURER OF HOUSEHOLD PAPER AND HYGIENE PRODUCTS WITH OPERATIONS THROUGHOUT EUROPE AND DISTRIBUTING PRODUCTS TO 27 COUNTRIES: “IT WAS A BIG BUSINESS AND WE WERE SEEING PRETTY CONSISTENT GROWTH.”**

The Tejani family history is steeped in the tissue and paper industry. Several generations have run paper mills in the UK and in continental Europe, and today's Leicester Tissue Company (LTC) is proof of the entrepreneurial family's ability to evolve and adapt to changing trends over several decades.

TWM meets Amin Tejani, LTC chairman and chief executive, his son Ayaz Tejani, chief financial and operations officer, and Frank Millward, sales and marketing director, at the company's new site in Thurmaston, Leicester, UK. The company relocated to the new, purpose-built 110,000sq ft national distribution centre, manufacturing facility and head office in January 2018.

Mr. Tejani Snr had previously headed up Leicester Paper Company (LPC) – one of Europe's largest independent paper manufacturers – that the family founded

in 1980. “We had six paper machines, two here in the UK and four in Europe,” he says. “We were manufacturing 60% of the private label in the UK, so we had a significant presence here.” By its 30th anniversary, the company had become a leading manufacturer with a turnover of £300m of household paper and hygiene products with operations throughout Europe and distributing products to 27 countries: “It was a big business and we were enjoying consistent growth.”

In 2010, Tejani sold the business to Italian tissue giant Sofidel: “As part of that deal, the family walked away,” he adds. “There were six major family shareholders on the board. The view was that they wanted to exit and retire, so we exited. Then we saw an opportunity in the UK because a lot of operations were consolidating ... Georgia-Pacific (GP) had left the region ... so the choice for the retailers was restricted and



we felt there was an opportunity to enter the market again with the next generation."

He started LTC with his son - Ayaz Tejani - in 2014: "The tissue and paper business has been in my family's blood for over 30 years, and it is a privilege to be carrying the legacy of my family forward in this industry," he says.

Now along with the next generation, Tejani Snr is looking to build LTC into a leading tissue manufacturer and supplier: "We are driving significant growth in a difficult and challenging market."

The Leicester site specialises in converting paper reels into a variety of tissue-based finished products. It produces toilet tissue in 2, 3 and 4 ply, 2-32 rolls pack formats, embossed, quilted, lotion, fragranced cores, FSC/virgin/recycled tissue, as well as kitchen towels in 2 and 3 ply, 1-12 rolls pack formats, embossed, glue "coloured" emboss options, decorated print, fragrances cores. A facial tissue line is also being installed at the end of 2020. All products are being sold as branded or private label products to the UK retail market, with 70% of production currently for branded and 30% for private label. Customers include Wilko, Morrisons, Poundland, Aldi and Co-op.

Growth has been fairly rapid: when the company invested in its first PCMC-supplied line for the production of toilet roll and kitchen towel in 2014, it had a

capacity of 10,000tpy and a turnover of £2.06m. A second PCMC-supplied line in 2015 doubled capacity to 20,000tpy and a printing facility was added in the same year. In 2017, quilted embossing rollers were added on both lines and a lotion machine for premium toilet roll was added in 2018.

In July 2019, a third PCMC-supplied line will be installed, followed by a fourth line in December 2019, doubling the site's current 20,000tpy toilet roll and kitchen towel production capacity in a £24m investment: "We are almost full, so we really need that extra machine in July," Tejani Snr adds. "It will also be full automation - that's key for us. By December 2019 the whole site will be fully automated."

New embossing rolls are to be added so the business can make quilted products: "We are diversifying our product range," Millward says. "Some of our current business is definitely in the economy sector, but obviously most of the growth and the profit is in the premium sector. We have our own tertiary brands and they will continue to have a place in our portfolio... but we are also looking to develop and grow our presence in the private label market. We already supply Wilko, Co-op and Aldi own-retailer brands and we are in discussions with other retailers with a view to supplying their ranges."

Is the increasing demand for private label products in the UK key for the company's

**ALL PRODUCTS ARE BEING SOLD AS BRANDED OR PRIVATE LABEL PRODUCTS TO THE UK RETAIL MARKET, WITH 70% OF PRODUCTION CURRENTLY FOR BRANDED AND 30% FOR PRIVATE LABEL. CUSTOMERS INCLUDE WILKO, MORRISONS, POUNDLAND, ALDI AND CO-OP.**

continued growth? "Yes definitely," Tejani Jnr says. "This year, we have the two converting lines coming that will give companies like Aldi the size of capacity that means they would be keen to work with us. The big discounters and the retailers want the assurance of capacity and consistency of product that we will provide."

Millward adds "It is very important that we meet the quality standards and stringent technical demands of the large retailers. Our in-house laboratory and technical team help ensure that we do this," he says. "We are fully accredited, and most of our paper is FSC. This is important if you're growing your business with Aldi and Wilkinson's, etc, as well as the Co-op."

"Our capacity is doubling," Tejani Snr adds. "Once you develop initial business with these types of customers, it's then a



L-r: LTC sales and marketing director Frank Millward, chief financial and operations officer Ayaz Tejani, chairman and chief executive Amin Tejani.



**Strategic growth:** In 2019, two new PCMC-supplied lines will join the two existing lines, doubling capacity to 40,000tpy.

continuous dialogue and building of trust that brings you more business."

However, the most significant step forward for the business will be in 2022, when the company has committed to build an integrated paper mill in a further £25m investment. The output of the mill will align to the converting capacity and will support the planned turnover of circa £55m.

"We are looking for UK sites at the moment and the aim is to have a mill based close to the converting assets, as we will align the converting to the mill output. Having put down six mills in LPC's time, there's a significant pool of experience at the company in paper manufacturing," Tejani Snr says. "If you look at the way LPC grew, the curve accelerated rapidly when the paper machine came in, because that's when your market is much wider, and you can approach the big retailers because of the more obvious control you have on quality and cost. The market is then yours to grow. That is key to our future growth from 2022."

Will the paper mill definitely be in the UK? "Yes, definitely," he adds. "Firstly, 200,000 tonnes of tissue are imported into the UK annually creating a market for us above our own converting needs. Secondly, we are one of the very few companies who have the experience of delivering paper-making in a greenfield site in the UK. As a result, Leicester is now one of the largest

paper-making sites in the country, so there is a roadmap for us. There's an ability to do it. From an investment point of view there's still a good return. There is an advantage to going into Europe, but Europe has overcapacity ... having it in the UK will be good for our business model."

While they don't currently export, there are opportunities to export the parent rolls. But he adds that there is already enough demand in the UK market: "There's enough demand here, so why go over the water? But there is an opportunity for us to sell finished products in Europe. In LPC times, we were selling to Carrefour and others from the UK. The transport costs are neutral so you can compete with the Europeans. But we're seeing growth of 2-3% in the UK tissue market, so there is enough for us here."

Tejani Snr says that private label is showing growth on an annual basis. The big brands are losing their share, "and not offering anything better. They are giving less product and value to the consumer than they were 10 years ago."

"The differential between own label and branded retail pricing and quality has narrowed," Millward adds. "This has been a turbulent year in the market because of escalating fibre costs, and the impact of FOREX. Political instability around the Brexit issue hasn't helped"

Tejani Jnr adds: "If you look at the

Poundland offering - our exclusive tertiary branded range massively overtrades and has driven total category growth for them. Retail brands are getting better and better. The consumer recognises that the quality and value are both there."

Do UK customers want to pay more for green tissue products? "The tissue market is unusual, because its environmental credentials don't carry as much premium at retail as in other categories," Millward says. "We do however have initiatives in our NPD plans. There is a growing concern regarding plastic and packaging waste. In response to the consumer demand and trade interest we are likely to launch a bio-degradable paper wrap toilet roll range, with a big retailer in the next three months".

The last decade has also seen the consolidation of tissue manufacturers within the UK market: "There is still a lot of competition in the UK tissue market, there are a lot of big players as well as smaller independent players. But the numbers are much lower than they used to be," Tejani Snr says. "Most of the tissue found on the UK shelves comes from conventional wet process mill technology. The key is to deliver the product quality and consistency at the higher grammages. TAD will continue to have a place in the kitchen towel category because of its absorbency characteristics but the process is very



energy hungry and costly."

"Most of our paper grades and specifications are created around the needs of the customers we supply," Millward adds. "As an example-for one customer in the discount sector, we worked with them to launch the first 4ply quilted toilet roll product in the sector at of course an incredibly competitive retail price. There was a point of difference and so the sales line followed: 15gsm tissue paper and kitchen towel at 17gsm- That's the area we're in at the moment, but as we develop our sku base there will be a move towards higher grammages-20 gsm and above"

"If you look at the discount sector, the reason we've been so successful with Poundland is because they have joined with us in a long-term partnership, with us contributing market knowledge and category management advice," Millward says. "When we started trading with them, their toilet roll business was half the value of their kitchen roll business. A massive under-trade versus the market and so a significant opportunity. By working together collaboratively we have driven total category growth in 2017/18 of 26% and this year to date of 10%."

In terms of the fibre price increases, Tejani Jnr says that it has been "very bad, but it's at a plateau now: "We can either be very bullish and pass the increases on directly or be more creative about it. It's all about how the tissue converters

or manufacturers manage the fibre price increases that matters-and we share the issue transparently with our customer base to form joint plans"

He adds that the next big issue will be Brexit, and what happens with foreign exchange rates: "That's the big one. We don't know how it's going to go, but we have been stockpiling parent reels at the ports. If we are outside of the EU, all the paper work and admin to get those through will cause a lot of strain at customs. We have also increased our finished product stock levels. It's not just the suppliers that are concerned, the retailers are also"

Tejani Jnr adds: "Brexit will bring its own challenges, and we are ready for them. Our model is that we will be able to supply the market for six weeks without any issues, from our stock levels. But the press is saying people need to stockpile tissue paper ... We are trying to manage as best we can, and hedge for three months. We try to hold the price as long as possible before it hits the customers or consumer. For us as a company, we could win a lot or lose a lot."

Part of the company's growth curve over the next few years will see it moving from 64 staff to 160 staff, which will provide a significant boost to the local area : "The discounter market is growing in particular so we will continue to develop in this area in parallel with seeking new business in the Grocers ," Millward says. "The unstable marketplace of the last 12-18 months

**"THE REASON WE'VE BEEN SO SUCCESSFUL WITH POUNDLAND IS BECAUSE THEY TOOK US ON BOARD TO SUPPLY ALL THEIR BUSINESS, BUT ALSO DEAL WITH THEIR CATEGORY MANAGEMENT," MILLWARD SAYS. "WHEN WE STARTED TRADING WITH THEM, THEIR TOILET ROLL BUSINESS WAS HALF THE VALUE OF THEIR KITCHEN ROLL BUSINESS. SO THIS IS AN OPPORTUNITY. THEY AND US HAVE SEEN GROWTH NOW. 2017 THEY WERE UP IN VOLUME TERMS BY 26% AND THIS YEAR UP 10%."**

has actually helped us. Retailers have been forced to consider their options and we have had attention because of this. Without it, our growth may have been a little slower."

"Our objective is also to achieve stability through the growth," he adds. "It's important to build customer relationships that will bring longevity of supply. It's a key building block for us as we move forward to drive shareholder value. We are here to stay."



**Increasing demand:** private label growth in the UK market has been key for the company's machinery investments.





# FULL-AUTOMATIC TRANSFER TISSUE INTERFOLDER

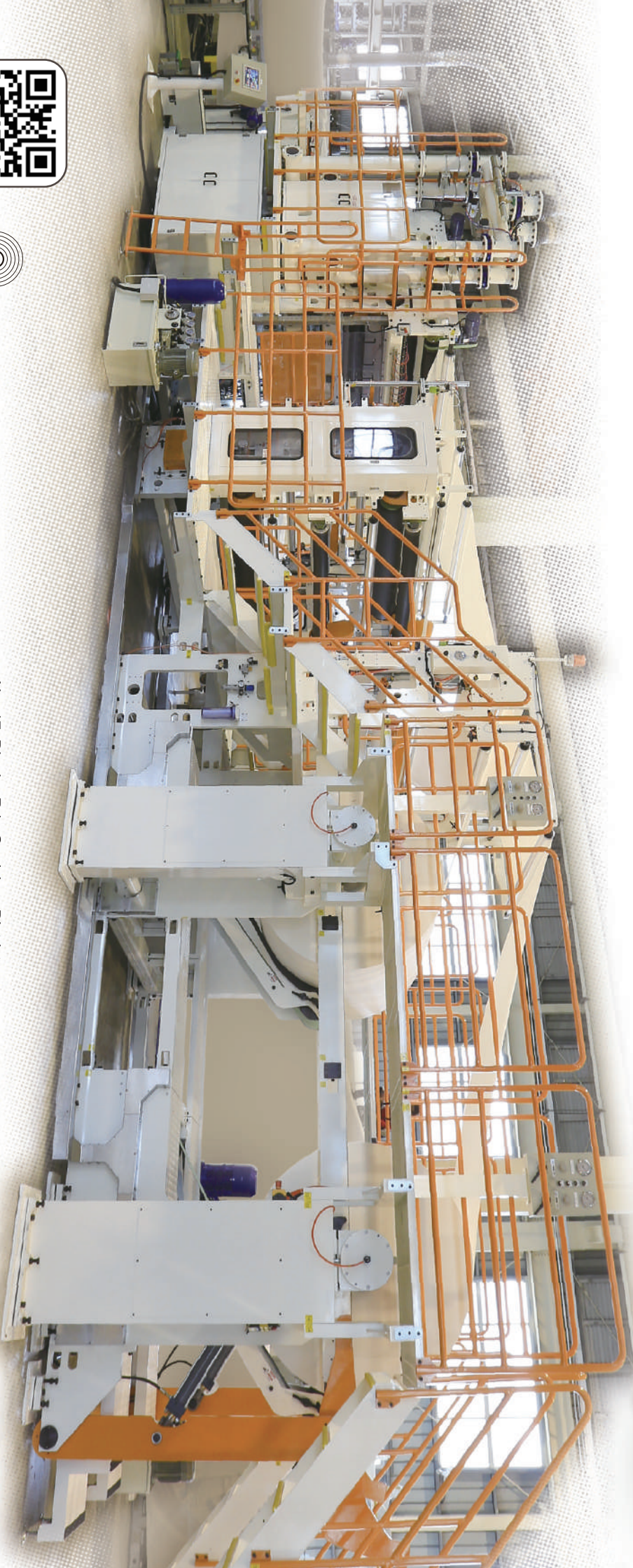
*facial tissue and towel*

## TYPE SOFIA

Tissue Paper

### SPECIFICATION

|                  |                              |              |                                    |
|------------------|------------------------------|--------------|------------------------------------|
| Design Speed     | 220M/Min or 15 cycles/min    | Paper Width  | Max. 3650mm                        |
| Operation Speed  | 180 M/Min. or 14 Cycles/Min. | Material     | Tissue Paper 、 Hand Towel          |
| Parent Roll Dia. | Max. Ø2500mm                 | Basis Weight | Tissue: 11-25gsm ; Towel: 33-40gsm |
| Unwind Stand     | 2, 4, 6, 8 (Up To 4 Ply)     |              |                                    |



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# WHEN A BEAUTIFUL DANISH MODEL IS IN TEARS BREAKING UP WITH HER BOYFRIEND VIA TEXT... WE ALWAYS GIVE HER A BOX OF TISSUES

Whether it's wiping away the wrong make-up, padding out a little needed cleavage, or keeping the camera eyepiece dry, no fashion shoot ever has enough tissue. Douglas Voisin, a Miami, USA-based fashion-advertising photographer and film director, reports from on set.



**Douglas Voisin**  
Fashion-advertising photographer  
and film director

**M**any people may not know that the way each fashion shoot begins, be it in a motorhome on location in Miami or on a secluded beach in Granada, is with make-up being done on the models.

Make-up artists might have a whole table full of the trendiest colours from MAC and Revlon, or be working out of a mobile kit on location, but the one thing that is never missing... is a roll of tissue.

It may be that the model arrives at 6am **still in her nightclub makeup** (yes this happens) and it has to be removed!

It may be drying the tears of a beautiful Danish model while she breaks up with the boyfriend over text right before the shoot (yes this also happens)!

No fabulous fashion shoot can ever have enough tissue!

With music blaring and stylists doing final fittings of the clothes on the models before the shooting actually starts, there're always little hiccups that need to be addressed. The shoe samples are too big – reach for the tissue! Stuff some in the shoe.

Need a bit more cleavage on this dress – tissue will solve that.

The photographer, kneeling in the sand on the beach on a scorching sunny day, starts sweating so much he can't see through the eyepiece of the camera – tissue!

Who knew these little white squares (or rectangles) could be so essential to the inner working of creating such amazing fashion imagery! I can remember days where I had to send an assistant to get more rolls of tissue just to finish out the day, because – hello, essential!

End of the day, everybody worn out, pizza break on the beach. Everybody needs tissue!

Later that evening getting home to my little hyper-kinetic seven year old, after a big hug to Daddy and having chocolate milk while telling him the highlights of the day, one swift hand gesture and there goes the spilt chocolate milk – "Daddy, get some tissue!"

**NO FABULOUS FASHION SHOOT CAN EVER HAVE ENOUGH TISSUE! WITH MUSIC BLARING AND STYLISTS DOING FINAL FITTINGS OF THE CLOTHES ON THE MODELS BEFORE THE SHOOTING ACTUALLY STARTS, THERE'RE ALWAYS LITTLE HICCUPS THAT NEED TO BE ADDRESSED.**



# PACKAGING IS FACING A REVOLUTION AS CONSUMERS AND GOVERNMENTS DEMAND A DRAMATIC RESPONSE TO THE CRISIS OF GLOBAL PLASTIC POLLUTION. TWM ASKED LEADING MACHINERY SUPPLIERS TO OUTLINE THEIR STRATEGIES, AND FOUND THEM ALREADY AHEAD OF THE GAME

## RADICAL CHANGE IS COMING — IS THE CASEPACKER THE ANSWER?

Europe's packaging tradition of wrapper to bundler must evolve to meet consumer and government demands. Ryan Holmer, technical sales/marketing manager, Infinity Machine & Engineering Corp, makes the case for casepacking.

TT



**Ryan Holmer**  
Technical sales/marketing manager  
Infinity Machine & Engineering Corp

Europe's tissue packaging layouts have not undergone a transformation in many years; the machine capabilities change, suppliers change, but for the most part it has always been a wrapper to a bundler. Now is the time to advance the tissue packaging lines in Europe to be truly flexible by integrating an Infinity Infusion casepacker. This necessary evolution is driven by the demand from end-users and governments for more sustainable and material conscious products. The products could be anything from paper wrapped packs put into cases or by-passing the wrapper altogether by packing unwrapped rolls into small cases. No matter the situation, line flexibility will be needed to

accommodate these changes. Infinity has the equipment and engineering capability to accomplish this.

The greatest factor leading to the evolution of European's tissue packaging lines is the demand from consumers and governments for the use of sustainable packaging materials. For example, the European Union recently voted to ban single-use plastics by 2021. This action

will undoubtedly carry over to the tissue industry and we need to be ready. The second factor for this change is the increase in e-commerce business in the tissue industry. Most industries have had to adapt their product or it's packaging to be sold online. Due to the cost of shipping tissue, the tissue industry has largely been sheltered from the adjustments other industries have had to face. However, the



*The customer's doorstep: Products need to be safely transported in a case*



**Direct sell:** Casepacking is sustainable, bio-degradable, and offers good protection for the product

adaptation is inevitable. Online retailers like Amazon are now finding more cost-efficient ways to sell tissue rolls online. Those online sales may be compressed cores, unwrapped rolls into perforated/ small cases, subscription-based services or passing the shipping cost onto the consumer. Whatever the product is, it needs to be in a case in order to transport it to the consumer's door step.

The final factor for the evolving tissue packaging lines are the new developments in paper wrapped product. This could include heat sealable paper, paper with sprayed glue or even a bio-plastic. All these products are susceptible to damage when transported in a bundle. Casepacking

ensures the wrapped rolls are properly protected on their way to the market or the consumer's doorstep. With these three factors in mind, casepacking is the best solution. Casepacking is sustainable, bio-degradable, offers more protection than poly bundles and is necessary to sell tissue products directly to consumers.

This trend in more sustainable products and e-commerce ready products may affect tissue producers in three ways. The first will be the need to have a flexible packaging line which will most likely involve integrating a casepacker to existing lines. At the same time producers will need to be able to quickly switch between their existing bundling and bagging business or even phase out their bundling business altogether. Additionally, producers may need to by-pass the wrapper and send unwrapped rolls directly to the casepacker. The second way is the potential for a few companies and producers to emerge as the market leader in sustainable and e-commerce ready product. As the adage goes, "the early bird gets the worm". The final way sustainable and e-commerce trends will affect European tissue producers will be how the product is delivered to the market and how it is displayed on store shelves or on someone's door step. The attractive graphics that have traditionally been printed on poly will now need to be applied to the paper wrapped rolls and/ or the case itself. In addition, whether it is paper wrapped product into cases, or unwrapped rolls into a case, new pallet configurations will need to be addressed.

Fortunately, for the tissue industry, these predicted changes will likely occur over time. Infinity's patented Infusion 3.1 casepacker/ bundler/bagger modular system is the

solution to these demanding packaging requirements. Utilising a fixed infeed section (docking station), the Infusion 3.1 can be coupled with modules that are moved in and out of the docking station to give you 3 machines in 1. Cases, bundles, and bags all in the same machine. The tested and proven Infusion system will allow producers switch between their standard bundling business and their sustainable/e-commerce business which will most likely involve some form of casepacking. The Infusion system has been used by North American tissue producers for 15 years and over 360 systems have been installed. The Infusion system is the answer for European producers to maximise packaging flexibility. Modules can be moved from line to line or plant to plant and the modules can be used for every type of tissue product such as rolls, industrial products, facial tissue cartons and even diapers.

In conclusion, it is safe to assume that the tissue market, especially in Europe, is about to experience a shift in how the product is packaged and presented, and how it is delivered to the consumer. The reasons for this could include sustainability demands, e-commerce requirements or tamper free packaging for paper wrapped product. Either way, production lines will need to be flexible and Infinity has the equipment and engineering resources to keep European producers ahead of the curve. Whether that is designing unique plant layouts with wrapper by-passes or offering the Infusion 3.1 modular packaging system, Infinity has you covered for changing market conditions.

*This article was written by Ryan Holmer, technical sales/marketing manager, Infinity Machine & Engineering Corp, for TWM.*

**THIS TREND IN MORE SUSTAINABLE PRODUCTS AND E-COMMERCE READY PRODUCTS MAY AFFECT TISSUE PRODUCERS IN THREE WAYS. THE FIRST WILL BE THE NEED TO HAVE A FLEXIBLE PACKAGING LINE WHICH WILL MOST LIKELY INVOLVE INTEGRATING A CASEPACKER TO EXISTING LINES. AT THE SAME TIME PRODUCERS WILL NEED TO BE ABLE TO QUICKLY SWITCH BETWEEN THEIR EXISTING BUNDLING AND BAGGING BUSINESS OR EVEN PHASE OUT THEIR BUNDLING BUSINESS ALTOGETHER.**



# PRE-STRETCHED FILM TENSIONED AND TOUGH ENOUGH FOR JUMBO ROLL PROTECTION

Marco Cirigliano, sales and application engineer, outlines why FIS Impianti's new generation wrap is critical to preserve paper quality, hygiene, and avoid contamination.

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**Marco Cirigliano**  
Sales and application engineer  
FIS Impianti

**T**oday, the latest generation of tissue machines produce jumbo tissue rolls with diameters of up to 3m or more, weigh close to five tonnes and are often extremely soft.

Each jumbo tissue roll can have different destinations: to combine, to convert, to stock or to be sold out in the market.

After production on the tissue machine, jumbo rolls are usually handled by a proper handling line and at the end are transported with clamp trucks or LGVs. For these operations, the wrapping with stretch film of the rolls grants a better protection of

the roll itself, reducing contamination and damage.

Furthermore, even if it's not intended for the jumbo rolls to be sold externally, they can be stored for days or even weeks in the warehouse before being converted. This means that the importance of a good stretch film protection on the jumbo rolls is critical to preserve the paper quality (in terms of humidity) and the properties avoiding contamination of external agents which is detrimental for a hygienic product.

Being as jumbo tissue rolls produced by the tissue machine are often characterised by extra softness, it's important not to damage them during the wrapping operations: this can be achieved with a proper film dispenser equipped with pre-stretch device.

FIS's new generation film pre-stretch creates an accurate film tensioning control wrap of roll, respecting its edges and releasing the proper film quantity with the correct film tensioning in the light of the angle between the plastic film direction and the paper roll axys. This functioning means that the roll edges shape is respected.

Thanks to the adjustable film pre-stretch ratio up to 400% of the new generation

FIS pre-stretch and, using a proper 100% recyclable LLDPE film, it is also possible to reduce consumable material costs.

The pre-stretch ratio can be varied through the FIS HMI without stopping the wrapping machine and, in addition with the patented jumbo film dispenser (for easier film replacement out of wrapping area) reducing wrapping line idle time and operator intervention.

The innovative high technology of the fully automatic FIS Axial 93 and 96 wrappers (version with rotating arm and rotating table) designed for extra soft giants jumbo rolls up to 3m diameter, in addition to the film pre-stretch device is characterised of a special deformable belt conveyor on board that adjust itself into a circular shape that has more of diameter as the theoretical jumbo tissue roll diameter which is being wrapped. By doing so, the extra soft jumbo roll is gently put in rotation by means of a large contact surface reducing the applied pressure on the external paper layers, without suffering stresses on the outer surface and thus avoiding their damage.

The user-friendly operation of the FIS fully automatic wrapping line is completed with the new release FIS Teleservice App (for the remote production check of handled/wrapped reels and of wrapper status in terms of working hours, scheduled maintenance and reported anomalies) allowing an easy control of the line even if not being used by highly specialised technicians.

Last but not least, the FIS compact concept wrapping line is conceived to minimise civil works required for installation and to reduce allocated space for the line itself in order to permit the placement of the line directly in the tissue machine hall.



**Wrapping operations:** protection of the jumbo tissue roll is achieved with a proper film dispenser equipped with a pre-stretch device

*This article was written by Marco Cirigliano, sales and application engineer, FIS Impianti, for TWM.*

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# THE CHALLENGE – TO FIND A HIGH QUALITY AND INDUSTRY COMPATIBLE BIOPLASTIC

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**Eros Burelli**  
Packaging product manager  
Fabio Perini

**Plastic – hundreds of millions of tonnes of it every year – has been intrinsic to tissue product packaging. So the urgently needed bioplastic replacement must slot seamlessly into today's production cycles. Fabio Perini's packaging product manager Eros Burelli outlines the latest research success.**

**C**urrent packaging habits in plastic materials play a fundamental role in protecting, preserving, transporting and promoting products.

For this reason, a material that can replace plastic and have the same economic benefits for use on today's increasingly automated, fast and high-performance production lines is certainly a challenge.

Passing from plastic to another material just as high performing requires a profound change, important investments, new processes, technologies and materials. It is imperative that alternative materials be available in large quantities because the amount of plastic currently used for packaging is in the order of hundreds of millions of tonnes per year. Additionally, any new materials must perform give rise to economically sustainable recycling chains.

One of the solutions available to radically change the current system is to intervene upstream of packaging and make sure its design is compatible with existing recycling systems and plants throughout the territory.

Fabio Perini has embarked on the quest for an alternative to plastic that could, in addition be interchangeable and compatible with current packaging systems.

With the Casmatic brand, it was decided to progressively eliminate plastic from primary and secondary packaging in the production cycle of tissue.

Countless tests have been performed on latest-generation wrappers, such as the CMW1000 and the newest addition Carbon T, to understand which material is most suitable to completely replace plastic without totally revolutionising the machine, present today in many customers' companies.

Starting from paper (used today in several different ways in our field and capable of effectively replacing plastic) and coupling it with ecological bioplastics made from starches and plant waste having the same properties as plastic polymers, yields a product that can maintain today's production cycle intact, with the major difference that it is a 100% natural product.

But why not use bioplastics directly without adding paper?

Today, bioplastics of plant or animal origin are still very expensive and are not yet fully available to be used on an industrial scale. So we looked for a material that could be combined with these products, and paper turned out to be particularly effective.

Different paper grammages – all certified FSC (because paper, too, must come from responsible and sustainable sources) – were tested on Casmatic wrappers. From low-grammage papers (25 gm<sup>2</sup>) to thicker papers (40 gm<sup>2</sup>) that could ensure perfect resistance to puncturing and a high level of protection of the product inside it; 100% biodegradable virgin papers and recycled papers to give continuity to the production cycle. All coupled, laminated or extruded to bioplastics with thicknesses from 7 to 9 microns to ensure good pack sealing and an optimal hydroscopic barrier for the product. And all this while keeping a suitable cost on the production cycle.

In January of this year, together with partnering companies, two types of paper were developed that could guarantee total sustainability of the products packaged by our machines: 100% compostable BIO paper with "Vinicotte OK compost" certification, and 100% recyclable and

**PASSING FROM PLASTIC TO ANOTHER MATERIAL JUST AS HIGH PERFORMING REQUIRES A PROFOUND CHANGE, IMPORTANT INVESTMENTS, NEW PROCESSES, TECHNOLOGIES AND MATERIALS. IT IS IMPERATIVE THAT ALTERNATIVE MATERIALS BE AVAILABLE IN LARGE QUANTITIES BECAUSE THE AMOUNT OF PLASTIC CURRENTLY USED FOR PACKAGING IS IN THE ORDER OF HUNDREDS OF MILLIONS OF TONNES PER YEAR. ADDITIONALLY, ANY NEW MATERIALS MUST PERFORM GIVE RISE TO ECONOMICALLY SUSTAINABLE RECYCLING CHAINS.**

biodegradable paper. These are today available for all our customers who want to contribute to safeguarding the planet, differentiating themselves and becoming increasingly active in the sustainability of our particular field.

Fabio Perini machines with the Casmatic brand have been enhanced with a new device that allows them to go from poly to paper through a simple selection on the operator panel.

These improvements have been implemented on the machines in order to allow working with any type of paper: virgin papers whose fibres are closely joined together, creating a barrier against heat that must be bypassed in order to melt the bioplastic to ensure proper sealing of the pack; recyclable papers, having wider fibres that allow heat to penetrate more easily, making sealing simpler. Casmatic machines today have the possibility to differentiate the various temperatures with related sealing times easily and automatically, thus guaranteeing workability with all products present on the market today.

These tests have yielded ideas that can be expanded on wrapping machines which, in addition to guaranteeing an optimal

**THESE IMPROVEMENTS HAVE BEEN IMPLEMENTED ON THE MACHINES IN ORDER TO ALLOW WORKING WITH ANY TYPE OF PAPER: VIRGIN PAPERS WHOSE FIBRES ARE CLOSELY JOINED TOGETHER, CREATING A BARRIER AGAINST HEAT THAT MUST BE BYPASSED IN ORDER TO MELT THE BIOPLASTIC TO ENSURE PROPER SEALING OF THE PACK; RECYCLABLE PAPERS, HAVING WIDER FIBRES THAT ALLOW HEAT TO PENETRATE MORE EASILY, MAKING SEALING SIMPLER. CASMATIC MACHINES TODAY HAVE THE POSSIBILITY TO DIFFERENTIATE THE VARIOUS TEMPERATURES WITH RELATED SEALING TIMES EASILY AND AUTOMATICALLY, THUS GUARANTEEING WORKABILITY WITH ALL PRODUCTS PRESENT ON THE MARKET TODAY.**

interchange between plastic and paper, now afford greater ease also as far as ordinary machine operations are concerned.

For secondary packaging too, Fabio Perini is already working to provide its customers with a simple solution, 100% ecofriendly, capable of reducing the use of plastic on all Casmatic brand machines. A new technology for secondary packaging will be presented before the end of the year.

This is the Fabio Perini challenge: preparing its product portfolio and helping

customers, with their current Casmatic brand machines, to actively contribute to safeguarding the environment with bio and recyclable products, simply by installing the "bio pack kit" that helps to keep abreast of technologies and productivity, respecting nature, the planet and the future.

*This article was written by Eros Burelli, product manager Packaging, Fabio Perini, for TWM.*



**Wrapping developments:** an optimal interchange between plastic and paper production can now be guaranteed



# PROVING FLEXIBILITY AND SPEED CAN COEXIST FOR TODAY'S CONVERTERS

The escalating demands of today's converting market continue to increase pressure on converters. Factors like trade wars, pulp prices, and global markets create external threats that converters can do little about. Other demands like buying habits of end-users and major store brands may seem external as well, but how converters strategically respond to those needs and future proof their business ultimately determines their long-term success.

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**Kyle Demerath**  
Engineer and packaging development  
leader, PCMC

The continued growth of private label tissue products over the last decade requires converters to demonstrate flexibility in their packaging systems. The number of lines converters can dedicate to single formats and product SKUs has dropped as they need to prioritize private label needs. This requirement, as is always the case for small contract converters, is now just as important for large brand label producers as well.

Fueling this growth of private label products are warehouse stores, which continue to expand their footprints and show healthy financials. Large bundles of towel and tissue dominate their store shelves and sales numbers, and the message to converters is clear on what formats are needed.

On the towel side, 12- and 15-roll bundles lead the way in sales volume. Because retailers want every roll inside the bundle wrapped, the single-roll towel package has become the dominant format run on wrappers in the United States. As of 2018, PCMC's analysis of the market data shows that single-roll towel accounted for around 70% of the packages made on wrappers for the consumer market space. And even when looking at the tissue and towel market as a whole, single-roll towel still amounts to around one-fourth of the wrapper market.

The challenge for converters then becomes how to package this high-speed format effectively. Rewinders can now produce these towel products at rates around 300-400 rolls per minute with ease, stressing the capacity of many two-leg packaging solutions and leaving no margin for downtime. This, coupled with the need for a flexible machine that can make multi-layer tissue and towel packs, leaves converters with bottlenecks as they try to produce the most common towel format today.

Addressing this challenge creates a unique opportunity for PCMC with its XF800 wrapper. Founded in continuous flow technology, the XF800 is not only capable of consistently running single-roll towel at speeds of 200 ppm, but also running packs up to 5 wide and 3 high on the same machine. While many other machines in the market can match the size range of the XF, those same machines cannot match the reliability of high-speed production on single-roll towel — and the converting market is taking notice.

As more converters require high-speed towel production, they realize other flexible wrapper assets cannot keep up with the daily rates they need to match what their rewinders can produce. The XF800 addresses those needs without creating more complicated pack loops that rob efficiency and take up space.

In addition to its proven reliability, the XF800 offers flexibility and an operator-friendly machine built to generate more revenue for converters. Less maintenance and better access for personnel are clear advantages. A customer favorite, the changeover wizard, guides operators through every step of a changeover using easy-to-interpret pictures and steps to ensure accuracy every time. Combined with reliable adjustment motors with absolute feedback encoders built in eliminates the need to spend hours getting back to running speeds after changeovers. And on lines that need flexibility, the 20-30 minute changeovers to go from production speed to production speed delivered on the XF means more revenue for converters.

As converters with the XF800 discovered, the single-roll towel speed crucial to the industry, class-leading reliability, and operator-focused features of the machine strengthens their ability to deliver the finished products the market demands. The strategic decision these converters made to utilize the XF800 enables them to generate more revenue in today's market while providing the flexibility to address tomorrow's changes.

*This article was written by Kyle Demerath, engineer and packaging development leader, PCMC, for TWM.*

**AS MORE CONVERTERS REQUIRE HIGH-SPEED TOWEL PRODUCTION, THEY REALIZE OTHER FLEXIBLE WRAPPER ASSETS CANNOT KEEP UP WITH THE DAILY RATES THEY NEED TO MATCH WHAT THEIR REWINDERS CAN PRODUCE. THE XF800 ADDRESSES THOSE NEEDS WITHOUT CREATING MORE COMPLICATED PACK LOOPS THAT ROB EFFICIENCY AND TAKE UP SPACE.**



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# RETAIL SPECIAL: ONLINE AND AUTO-REORDERING!

By Soile Kilpi, director, and Kathren Kneer, principal, Pöyry Management Consulting

SF



**Soile Kilpi**  
Director, Pöyry Management Consulting

## Growth and omnichannel

The continued growth of e-commerce has made it a crucial part of the sale and marketing equation for household care brands, including paper products such as paper towels and toilet paper. According to a Nielson Report, online sales in the household care category grew by ~35% over three years, while growth of in-store sales was almost flat, at less than 1%. This growth is being driven by several factors. One of the keys is the move by grocery and mass market retailers to expand omni-channel capabilities with orders placed online and either delivered to the customers' doors or picked up at stores by the customer. Household care products are the most popular category for this type of ordering, and within household products, toilet paper is one of the top five purchases in both of these categories, while paper towels is a top five for in-store pick-up.

## On auto-reorder

As customers realise the convenience of ordering online, automated reordering becomes a natural occurrence for these products, especially as they are bought on a regular, recurring basis and typically don't require much thought or research after the initial purchase. Once a customer finds a home care product that works for them, they usually stick to that product, and don't often switch, or explore new products. In fact, according to Global Data consumer research, toilet paper and kitchen paper are the 3rd and 4th highest categories most apt to be purchased "on auto-reorder".

Household care products are also one of the top three most popular for online ordering in the FMCG category, and continue to experience strong growth online as well, and, as was already mentioned, growth in online sales was ~35% over three years.

The growth in this category is being driven by Amazon, retailers such as Walmart and Costco, and Consumer Packaged Goods (CPG's), themselves. Estimates are that Amazon accounts for ~85-90% of Household Essentials purchases, but their

growth is slowing, while growth for other retailers is increasing, as they improve their service offerings in e-commerce.

## Money to be made

With such a high share of the e-commerce pie, Amazon is in a category by itself and has a strong understanding of what is required to make money in e-commerce. The fact that it has increasingly been embracing the sale of household paper products, e.g., toilet paper and paper towels, means that there is money to be made by selling these products through e-commerce. In fact, according to the Wall Street Journal, Amazon is tired of selling products they refer to as CRaP, which is short for "Can't Realize a Profit". It has taken them a while, but Amazon now understands how to make a profit on paper goods.

## Large vs. small packs

Toilet paper and paper towels aren't heavy, but they are bulky, which makes them expensive to ship. To improve profits, the best strategy is to sell high-value items with low shipping costs. With the paper products, profits were improved by selling large volumes or packs, thereby providing higher revenue to the seller, offering value (discounts) to the buyer, and minimising the cost of shipping and handling. It is cheaper to ship one order of 20 rolls of towels or toilet paper than it is to ship five separate orders of four packs of these items.

This is because the "outbound shipping" cost can be spread across a higher average selling price. So there is money to be made on these large packs, whereas it could all be eaten up by shipping costs on the smaller packs, requiring multiple shipments.

The good news is that online sales seem to be predisposed to larger pack sizes, e.g., selling "club" sizes rather than "grocery store (smaller multiples/single packs)" sizes.

After all, online shoppers don't have to carry the bulky or heavy loads home, they just have to find the space to store all of the items. Not all shoppers have the space, but many do, and



**Kathren Kneer**  
Principal, Pöyry Management Consulting

appreciate the opportunity to “stock up”, at a lower per unit price. It’s a win-win, as Amazon, and even the CPG, gets more bang for its buck with these larger pack sizes.

For the shoppers who don’t have the space, they will continue to pay a higher per-unit cost for their preferred pack size, and it is up to the retailer to understand what that cost needs to be in order for them to still make a profit. Or, they drop the smaller size and shoppers will go elsewhere to get the smaller size they want.

### No more hassle

Consumer Packaged Goods companies have also played a part in increasing the sales of household paper products through e-commerce. One good example is a first of its kind campaign by Georgia-Pacific (GP), e.g., the Quilted Northern brand, which worked with Amazon to encourage shoppers to subscribe to Amazon’s Subscribe & Save replenishment service by scheduling periodic deliveries of packaged goods staple items, such as paper towels and toilet paper.

GP was touting the elimination of the hassle of lugging a bulky package of toilet paper around a store, and they and Amazon provided discounts, as well as free shipping, for those who signed up for the replenishment service. This programme drove two months’ worth of sales volume in a single day, and was considered a success. The subscription service also eliminated one of the key issues for shoppers with on-line sales: waiting up to five days for delivery. The product delivered on an agreed upon time during the month, so that the shopper knew when it would be delivered.

### From here to 2025

All of this activity from CPG’s, retailers, Amazon, and consumers has led to strong growth in each of the household care paper segments via e-commerce. Continued growth is expected, with some of the key numbers below:

1. According to Edge by Ascential, paper towel sales on Amazon reached an estimated \$160M in 2018, up almost 20% from 2017;
2. Online sales made up 90% of the growth in the CPG industry in 2018;
3. 49% of US consumers now shop for consumer packaged goods online, an enormous increase from just a few years ago;
4. Projections that online grocery sales will make up 20% of all grocery sales by 2025.

### Private Labels Play a Big Role

Another indication that there is strong opportunity in the paper segment of household care is the fact that Amazon is aggressively expanding the number of private label goods it sells in this category.

Amazon generally decides which products to offer as private labels by monitoring sales of third-party brands on its marketplace. For those that have strong sales, it will review customer comments and ordering patterns and then, potentially, develop its own private label.

If the product gains traction, Amazon will increase production and heighten visibility of the products by advertising on its website. In addition to its own private labels, Amazon offers exclusive brands that are owned by third parties.

**AMAZON GENERALLY DECIDES WHICH PRODUCTS TO OFFER AS PRIVATE LABELS BY MONITORING SALES OF THIRD-PARTY BRANDS ON ITS MARKETPLACE. FOR THOSE THAT HAVE STRONG SALES, IT WILL REVIEW CUSTOMER COMMENTS AND ORDERING PATTERNS AND THEN, POTENTIALLY, DEVELOP ITS OWN PRIVATE LABEL.**

Introduced in 2017/2018, Amazon’s private label paper towels and toilet papers (Presto!, Solimo, 365 Everyday Value) have seen large increases in market share. According to Edge by Ascential, its Presto! brand of paper towels was the #5 bestselling paper towel on Amazon, and the other two Amazon private labels were in the top 10. Amazon is playing a large role in the increased sales of private label household care paper goods in e-commerce.

### Wrap up

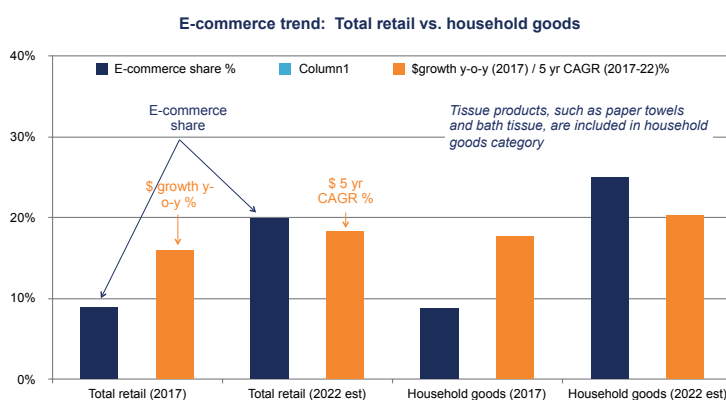
As consumers have embraced on-line and auto-reorders for toilet paper and paper towels, along with larger packages of both, the sustainability of these products has improved, a bit. Larger rolls, e.g., giant, huge, XLarge, etc., have led to fewer cores used as well as less plastic wrapping used in fewer large packages vs. many small packages.

Most of the major producers focus on the recyclability of the wraps and cores, and reduction in packaging, in general. Although all of the major brands, including major private label brands, continue to use plastic over-wraps for their toilet paper and paper towels, there are several smaller, more environmentally conscious brands which utilise paper overwraps, or a combination of paper and film, in addition to other alternatives. The trend toward improved sustainability is continuing in the retail tissue sector, even if it seems that progress is slow, at times. Overall, we expect the key trends to continue:

- growth in tissue paper product demand and online ordering;
- expansion of omni-channel capabilities;
- increased demand for private label tissue products;
- continued emphasis on sustainability efforts.

## E-COMMERCE

E-commerce share of household goods sales is similar to overall retail in 2017. However, growth rate for e-commerce in household goods is forecast to be higher



Source: U.S. Census Bureau, Nielsen, Pöyry





**CONSIDER YOURSELF AN INVESTOR NOW. IT'S YOUR MONEY: WHERE WOULD YOU PUT YOUR MONEY? IN CONSUMER TISSUE, OR IN PROFESSIONAL HYGIENE? OR WOULD YOU MAYBE PUT IT IN INCONTINENCE PRODUCTS, A QUICKLY GROWING CATEGORY WITH HUGE OPPORTUNITIES FOR INNOVATION. OR MEDICAL SOLUTIONS? THE GLOBAL POPULATION IS GETTING OLDER WITH MORE CHRONIC CONDITIONS. WHERE WOULD YOU PUT YOUR MONEY?**

# TISSUE NEEDS A STEP CHANGE TO BE FIT FOR THE NEAR- AND LONG-TERM FUTURE

In a wide-ranging analysis, Essity president and chief executive Magnus Groth told Tissue World Milan that innovation in the last decade has not been enough. A deeper insight into consumer needs is vital if the industry is to up its game to attract investors, young talent, and sustainable growth.

"How do we make the industry attractive in the long run, but also with the current issue and challenges that we're all facing, how do we make it attractive in the short run as well?"

"Essity has sales of €12bn and a presence in 150 countries; 60% of its business is in tissue and 40% is in personal care.

"Consider yourself an investor now. It's your money: where would you put your money? In consumer tissue, or in professional hygiene? Or would you maybe put it in incontinence products, a quickly growing category with huge opportunities for innovation. Or medical solutions? The global population is getting older with more chronic conditions. Where would you put your money?"

"The key challenges we face as a company and as an industry are:

- The tissue industry is currently not re-investable;
- There's a lack of consumer-relevant innovation in mature markets which is commoditising our category;
- Growth in emerging markets requires new technologies and resources. There is a huge growth opportunity in emerging markets, but will we be able to take advantage of that considering the lack of raw materials and the lack of technologies in order to make this possible in a sustainable way;
- Disposable products – an increasing sustainability concern. We're selling disposable products, and you read every day in the news that disposable products are under a lot of scrutiny now;
- Digitalisation transforms our business. It is a huge challenge and also a big opportunity;
- Talent war – we need to be an attractive industry. In the end, we need to be attractive in order to attract the best talent in the future, and to have this in a positive cycle for the long term.

"These challenges can only be solved by collaboration. No one can do this by themselves. "Why should we invest our money in tissue? One of the main issues we all face at the moment is that the tissue industry isn't very re-investible today. But I think it can be. We need to work together, starting with profound consumer insights. How can we improve their well-being, how can we improve the customer's health and hygiene? If it's a professional customer how can we improve their efficiency? We can do that together with the trade because the trade will have different delivery models, different subscription models, and so on. We need to do it with the equipment suppliers which need to develop the new equipment necessary to really provide the products and services to the consumers. And we, Essity, and the other tissue manufacturers really need to provide for the consumers, but none of us can do it alone.

"In the last decade, there hasn't been that innovation, other than the continuous improvements and efficiencies, which are all well and good, but we need to see a step change in our industry going forward if we are going to be attractive for young people and for investors.

"As a basic fundamental, the assumption is that sustainability is a key for all of us. At Essity we have now signed up to the Paris agreement target (which in 2015 saw 195 of the world's governments commit to prevent dangerous climate change by limiting global warming to well below 2 Degrees Celsius), not to have higher global warming by two Degrees Celsius up to 2030. We have also set our targets on reducing greenhouse gases under the scrutiny of the "Science-based targets" initiative (a partnership between CDP, UN Global Compact, WRI and WWF which provides companies with a clearly defined pathway to growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions) and they have approved that if we do achieve the targets

ONE OF THE MAIN ISSUES WE ALL FACE AT THE MOMENT IS THAT THE TISSUE INDUSTRY ISN'T VERY RE-INVESTIBLE TODAY. BUT I THINK IT CAN BE. WE NEED TO WORK TOGETHER, STARTING WITH PROFOUND CONSUMER INSIGHTS. HOW CAN WE IMPROVE THEIR WELL-BEING, HOW CAN WE IMPROVE THE CUSTOMER'S HEALTH AND HYGIENE? IF IT'S A PROFESSIONAL CUSTOMER HOW CAN WE IMPROVE THEIR EFFICIENCY? WE CAN DO THAT TOGETHER WITH THE TRADE BECAUSE THE TRADE WILL HAVE DIFFERENT DELIVERY MODELS, DIFFERENT SUBSCRIPTION MODELS, AND SO ON.



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"It is a good opportunity for working together," Magnus Groth at Tissue World Milan 2019

we have set for greenhouse gas emission reductions by 2030, Essity is pulling its weight in making sure that global warming will not be more than two degrees in a little over 10 years' time. I urge everyone to do the same.

"It is a good opportunity for working together in creating joint projects in order to together reach these targets and creating joint projects.

"The tissue industry is currently not re-investable. Looking at our annual report; this is the annual demand growth in tissue in different markets over the past few years. The main raw material price has developed and Essity's consumer tissue adjusted EBITDA margin.

"Ask yourself if someone asked you, "This is how my company has performed, will you invest in my company? Would you invest in this if you were an investor?

"Maybe this is the right time to step in, but if you look at the longer term for these growth rates and margin levels ... then there are lots of other opportunities out there in the world waiting to be invested in.

"So it's a little bit provocative but actually in the short term it's not; if we're going to get out of this kind of development in the longer term, that's when we need to work

on the other areas here.

"And the key here, number one, is to avoid commoditisation. Consumer brand innovation and it's not easy. When was the last time there was a product with new technology, something that would really game change the tissue industry? Increasing the growth rates, reducing the environmental impact and making this a better user proposition for the consumers. Our two examples: two recent launches that we did in the last two months:

- Coreless Toipa: there's no core. There have been products like this before but I haven't seen anyone yet where the whole stays unchanged, where it doesn't compress, and this is a huge development we have done with our key suppliers. The benefits from the consumer research are less obvious than you think; the main benefit

is that your family will have more peace of mind at home, because there's no argument in throwing away the tube. Other important benefits – environmental, there's 6% less material in this product, there's less waste, and in the countries where packing like this is taxed, there's less tax for the supplier. So a number of real tangible benefits. This product is really taking off; consumers like it and it is attracting consumers back to brands and away from private label because this is something that is differentiating. It's attracting consumers who never used brands.

- HHT in a box: tissue in a box. This is our biggest product in China though our subsidiary Vinda, the number one tissue supplier in China with over a billion euro sales and a

**WHEN WAS THE LAST TIME THERE WAS A PRODUCT WITH NEW TECHNOLOGY, SOMETHING THAT WOULD REALLY GAME CHANGE THE TISSUE INDUSTRY? INCREASING THE GROWTH RATES, REDUCING THE ENVIRONMENTAL IMPACT AND MAKING THIS A BETTER USER PROPOSITION FOR THE CONSUMERS.**



16% market share. This is the most common product in China and it is used for everything. You can take it with one hand and it also has a lower environmental footprint because it has no core in the middle and it contains twice as much as a normal household roll.

"These are the types of innovations that together as suppliers but also with the retailers, we need to differentiate. This is the type of innovation we can develop with our equipment suppliers and also with the retailers, to make the tissue shelf a more attractive offering for them. And in the end an additional consumer benefit.

"Growth in the emerging markets requiring new technologies – how will we be able to grasp this opportunity going forward, with huge opportunities. Tissue consumption per capita, kg/capita: North America: 25.1, Western Europe: 15.8, Japan: 15.7, Oceania: 11.7, Latin America: 6.5, Eastern Europe: 6.0, China: 5.6, Near/Middle East: 4.5, Asia far East: 0.9, Africa: 0.65. Just looking at Vinda in China which has been growing with double digits over the past 10 years, but how long can this continue?

"Last year we had a real supply issue of raw materials in China. With the long lead times, can we be entirely dependent on pulp as a raw material going forward? I don't think so. There is definitely a need for looking at alternative fibres, alternative processes. Do we really need to grind down the trees and dry them and ship them halfway around the world, and then use them to make tissue and dry them again; is that the only technology? It's the same we have seen for 100 years. Some of our most efficient plants have equipment that is 60, 70 years old. In how many other industries would you see this today?

"So if we're going to grasp this growth opportunity, which we are very excited about, then we would also need new technologies sooner rather than later.

"Disposable products and increasing sustainability consumption ... tissue is still in a slightly better position than some other disposable products, e.g. personal care's baby diapers, incontinence products,

## DIGITALISATION: IT'S NOT ONLY A CHALLENGE IT'S ALSO A HUGE OPPORTUNITY. THE FIVE OR 10 BIGGEST COMPANIES IN THE WORLD TODAY, NONE OF THEM PRODUCE ANYTHING. KEEP THIS IN MIND: FACEBOOK, AMAZON, NETFLIX, GOOGLE... IT'S THE COMMUNICATION PLATFORM THAT IS KEY.

etc, where most are made of plastics. The starting point is better for tissue, but our business will of course come under pressure.

"I see some opportunities here but we need to work together in our value chain but also with authorities in local, regional and national level.

"A local example from our Lucca, Italy, plant: what will help us when it comes to the recyclability issue, which is difficult for some of our tissue categories, which is to make sure the initial footprint is as small as possible. Key statistics for the site include: employing 300 people, 75,000 tonnes FP year, 100,000 tonnes MR year, 450,000 MWh energy consumption per year. Achieved: reduced energy consumption by 5%, reduced CO2 emissions by 3%, this CO2 amount can be offset by the planting of 260,000 trees.

"This is an example of day to day improvements that are achieved with very little investments and at a plant that has been around for a long time. Even though we have improved efficiency, sustainability, footprint for many years, there's still a lot to be done.

"From an innovation angle, Tork PaperCircle is the world's first recycling service for paper hand towels, and has lowered carbon footprints by up to 40%\* and lowers the generated waste of the buildings involved by up to 20%\*\*.

"We have a number of big accounts today, which have put in place extra bins in the washrooms to recycle reused hand towels. These hand towels are then sent to a few dedicated sites that we have provided with small additional investments that make the recycling of handtowels into new tissue possible. And there is huge demand here for this from Commerz bank in Frankfurt, and also pharmaceutical company AstraZeneca.

Why are they so eager to do this? Because they are looking at ways to improve their sustainability profile, and we can help them with this.

"For local authorities, this is also a perfect case as this needs to be agreed in every municipality. It really requires scale, investment and a long-term perspective. It is a huge opportunity.

"Digitalisation: it's not only a challenge it's also a huge opportunity. The five or 10 biggest companies in the world today, none of them produce anything. Keep this in mind: Facebook, Amazon, Netflix, Google ... it's the communication platform that is key. You don't see the producing companies at the top of the world, it used to be General Electric, etc. The big challenge for process industries is to do this right.

"The big end users that are signing up with us, they are doing it because they want to become more digital. They do this to use it as a showcase.

"By being digital and working on sustainable opportunities and investing more in innovation and working more in collaboration, this is the only way of winning the talent war. The list of most attractive companies for young people to work in does not have many tissue companies, it's Google and Spotify. We suggest that if you enter a company like Essity, you won't just be working in digitalisation, we have 100s of people working on digitalisation but also 1000s in innovation and sustainability. It's just that they haven't heard about us, and that's what we need to change. That's also a message we need to convey in order to win in the really long term.

"Together we can create a sustainable business for tomorrow, but we together need to work in all these different areas."

**FROM AN INNOVATION ANGLE, TORK PAPERIRCLE IS THE WORLD'S FIRST RECYCLING SERVICE FOR PAPER HAND TOWELS, AND HAS LOWERED CARBON FOOTPRINTS BY UP TO 40%\* AND LOWERS THE GENERATED WASTE OF THE BUILDINGS INVOLVED BY UP TO 20%.**

\*Based on a Life Cycle Assessment (LCA) for Europe, where the avoided processes have been taken into account, conducted by Essity and verified by IVL, Swedish Environmental Research Institute Ltd, 2017

\*\*Based on results from Tork PaperCircleTM pilot customers in Germany and The Netherlands



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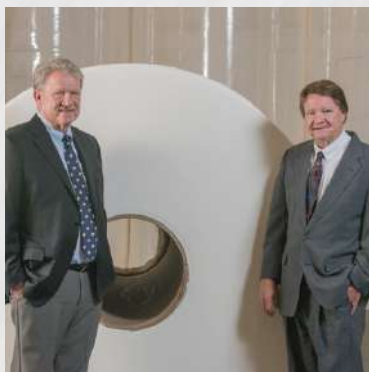
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