Tissue World

Magazine

The independent news provider for the global tissue business

THE UNITED KINGDOM

Vertical and horizontal growth - tissue's new era of renewal

Plus

MARKETISSUES

Al has been here since the Fifties – why is it not more widely used?

FRONTISSUES

Will ROI justify the "mind-boggling" investment planned for AI?



YOUR SINGLE SOURCE FOR TISSUE

Bath Tissue | Facial Tissue | Napkins | Kitchen Towel | Industrial Towel | Center Pull Towel | TAD Bath and Towel | NTT

Bath and Towel | Carrier and Specialty Tissue | Airlaid | Nonwovens | and more

THE GLOBAL LEADER IN TISSUE

The Power of Leadership

Since 1976, Convermat has been the leading global supplier of parent rolls of tissue to more than 80 countries worldwide. Our unparalleled market intel and strong network of strategic alliances, resources, and insider knowledge can further grow and strengthen your business to achieve higher profits.

There When You Need Us

We consistently maintain capacity balance for many of the leading global tissue players. Our extensive network of global suppliers and customers enables us to deliver a continuous flow of tissue at the most competitive prices in any market condition and to any destination with speed, reliability, and integrity.

At Your Service

Our experienced team of seasoned professionals is equipped to handle all of your needs including inland and ocean transportation, import/export protocol, technical specifications, testing lab facilities, proprietary product development, foreign currency management, credit risk, and all relevant sales services.

More Than Tissue

In addition to our complete line of tissue, towel, napkins, and specialty paper we supply a comprehensive line of nonwoven substrates for medical, wipes, automotive, filtration, hygiene applications, and more.



www.convermat.com T: 516.487.7100 F: 516.487.7170



IN THIS ISSUE...



03 5

FRONTISSUES

Vertical – horizontal – circular – after years of stagnation, the UK's tissue industry is in a new era of renewal



MARKETISSUES

Global tissue trade is beset by physical problems. So why is AI not more widely used to solve them? Fibre quality and source, computer chip supply, material prices, competitor performance, energy type and costs, logistics ... the domino chain is getting more and more complex. AFRY's Petri Vasara, Dr. Tech., Vice President, and Hannele Lehtinen, Director, say the answer is already here, and needs to be embraced.

Cover: Image showing the opportunities for growth during UK tissue's new era of renewal.

Image by Stefano Vuga,

PurplePrint Creative,

Founder,

Spain/ Italy, www.purpleprint.eu 08

NEWS IN BRIEF

A roundup of news from across the global tissue industry. To get the very latest news go to www.tissueworldmagazine.com.

12

COUNTRY REPORT: UNITED KINGDOM

UK tissue enters an era of renewal after 15 years of stagnation and machine shutdowns. Among trading partners, the UK has the oldest tissue machine fleet and highest production costs. Now, with European companies largely replacing American predecessors, machine investment and domestic capacity are set to rise, as imports are set to decrease. By ResourceWise.

17

COUNTRY REPORT: UNITED KINGDOM

Consumers are still changing their tissue choices following the pandemic and WFH, posing growth challenges as value sales vastly outperform volume sales. While per capita tissue consumption is higher than pre-Covid levels, the mature UK market is still normalising with private label performance strong. By Euromonitor International.

21

OPERATIONS REPORT: POPPIES EUROPE

Faster, leaner, newer, bigger ... independent market leader Poppies Europe reaps the rewards of long-term planning. Buying up an adjacent former aluminium casting mill in the northwest of England is the latest move to develop "vertically and horizontally," ready to seize new opportunities. Director Armindo Marques spoke to TWM.

25

OPERATIONS REPORT: WEPA GROUP

WEPA outlines its diversification strategy behind acquisition of leading company in the UK's growth sectors. A hybrid market of changing responses to hygiene, hybrid products, sustainability, and price. Following the acquisition of Star Tissue UK, Tim Vormweg, WEPA Director Group Communications, outlines its direction of investment.

29

OPERATIONS REPORT: NAVIGATOR GROUP

Latest acquisition means UK contributes around 50% of Navigator's total tissue turnover. Converter Accrol Group Holdings takeover is "a key pillar" in strategy of sustained expansion says Graham Cox, Chief Operating Officer, Navigator Tissue UK.

32

FIBRE: TECHNICAL THEME

As Suzano's giant \$4.3bn Cerrado Project comes online in Brazil, what effect will it have on world pulp prices and the T&T industry? The global tissue industry has been beset in recent years by pulp market cost acceleration and fluctuation. With increasing signs that a more stable market has returned, TWM spoke to Leonardo Grimaldi, Executive Vice President of Pulp Commercial and Logistics, and Aires Galhardo, Executive Vice President of Pulp Operations, Engineering and Energy. Report by TWM.

36

EXITISSUES

Investments in facilities and brands driving long-term growth: Kruger Products speaks to TWM about its last year in business, building broad top-line growth, and developing organisational capability and culture to drive future growth.

38

AD INDEX



We Tech Care



We believe in technology that is part of a larger project. In a design that creates a sustainable future for all. We believe in innovation. In change that opens up new paths, while balancing progress and the quality of life. We believe in responsibility. In a global vision that thinks about everything. About machines, about people, about the planet.







EDITORIAL HEADQUARTERS

Informa Connect

240 Blackfriars Road, London, SE1 8BF, UK Tel: +44 (0)20 7017 5000

Group Director

Chris Edwards: chris.edwards@informa.com

Senior Editor

Helen Morris: helen.morris@informa.com

Event Director & Publisher

Gerry Dunphy: gerry.dunphy@informa.com

Executive Director

Chris Kilbee: chris.kilbee@informa.com

CEO

Margaret Ma Connolly: margaret.connolly@informa.com

ADVERTISING ENQUIRIES

Europe & North America

Silvio Arati

T: +39 02 4851 7853 sarati@studioarati.it

South and Central America

Selma Ugolini

T: +55(11)99904 5350

selma@gova.com.br

China, Hong Kong & Macau

Pinky Zhang

T: +86 020 3895 1630

Pinky.Zhang@informa.com

TISSUE WORLD MAGAZINE

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

Please send address corrections to

Informa Connect

240 Blackfriars Road, London, SE1 8BF, UK

Tel: +44 (0)20 7017 5000

info@tissueworld.com

Subscription online at

www.tissueworldmagazine.com

In Tissue World all measures are metric and all dollars (\$) are US dollars, unless otherwise stated. Copyright 2024 by Informa Connect. All rights reserved. All materials printed in Tissue World Magazine is owned by Informa Connect and protected under the copyright act. No material may be reproduced in part or in whole without the prior written consent of Informa Connect.

TWM's Country and Operational Reports produce a mass of evidence on the UK's tissue past, present and future, and confirms that a fundamental transformation is underway.

From 2007 to 2021 domestic tissue production capacity decreased by about 18%, a startling figure given the levels of capacity increases achieved in other markets, both mature and developing, across the global industry.

Stagnation and machine shutdowns were the overriding feature. Among trading partners the UK had, and to a lesser extent still has, the oldest tissue machine fleet and highest production costs.

The business impetus is being powered not from the west, by the American tissue giants of yesteryear, but from continental Europe. Leading companies such as Sweden's Essity, Italy's Sofidel and Portugal's the Navigator Group have taken ownership. Another is Germany's WEPA Group, now present in Blackburn, Lancashire, and Bridgend, Wales. Tim Vormweg, WEPA Director Group Communications, can stand as a summary of the new era: "The UK market is a growth market that offers many opportunities."

QUOTE OF THE EDITION:

UK-headquartered Poppies Europe Director Armindo Marques explains his company's growth strategy after doubling manufacturing space: "A generous dose of competitiveness to grab some market share, a handful of product development to enlarge our offer, and a pinch of acquisitions to rationalise the lot."

WHAT MORE CAN ARTIFICIAL INTELLIGENCE DO FOR THE TISSUE INDUSTRY?

Al – or to give it its more superficially understandable description of 'large language model' – gets a necessarily short shout-out in MarketIssues.

Leading European analysts AFRY traces its evolution from the 1950s, through digitalisation to the 5th and 6th Industrial Revolutions using quantum computing and nanotechnology. Only in terms of the Seventh Industrial Revolution do we get the future tense, when we might witness AI converging with BioIntelligence and synthetic biology.

To answer the question in the headline, Al adds more power and speed to the organisational nitty gritty of running the business, helping refined choices to be made across progressively more complex source-to-shelf management.

While there will be many category advances decades hence, there are other elements to that "might." One is will ROI be worth it? Will projected trillions of investment - Google's former Chief Executive Eric Schmidt described the figures as "mind-boggling" - deliver for the bottom line in the real world outside of the brilliance of the technology? The investors will decide.

GLOBAL TISSUE TRADE IS BESET BY PHYSICAL PROBLEMS. SO WHY IS AI NOT MORE WIDELY USED TO SOLVE THEM?

Fibre quality and source, computer chip supply, material prices, competitor performance, energy type and costs, logistics ... the domino chain is getting more and more complex. AFRY's Petri Vasara, Dr. Tech., Vice President, and Hannele Lehtinen, Director, say the answer is already here, and needs to be embraced.



he future is unknown, but it was here already yesterday. That can at least be said when comparing what is being discussed about artificial intelligence (AI) and what it can do in some far-off future. Most of what is described has already been done yesterday, and far more advanced AI assistance is possible – imagination and creativity is the limit.

However, tissue and hygiene are very practical and highly physical issues. There is no point hiding what's done behind complex terminology.

Two points are at the core:

It's good to be made of atoms

It is good to be in a biological/physical sector such as tissue. Bits will not clean atoms. Tissue can't be cyberattacked. However, bits can help when atoms clean atoms. Replacements researched for tissue such as ultrasound or air blasts are either expensive or unhygienic.

What AI can do to help tissue

Wherever there is an action, a process, data or consumers, something can be done – not directly physically, but indirectly. Examples always help.

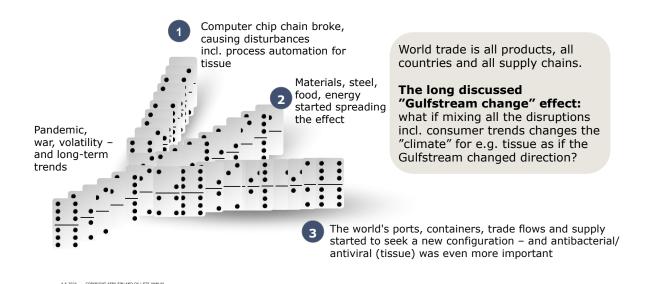


Fig.1: Domino effect of Covid-19

THE DISRUPTIVE BUSINESS ENVIRONMENT

Since Covid-19 entered our world, nothing has been quite the same. A domino effect can be shown as in Fig.1.

So, pandemic, war, volatility and underlying longterm trends hit. A domino chain of problems spread with computer chip supply, material prices, and global trade flows. Has this or will it have an impact on tissue in Europe?

Pulp and tissue are linked, and we could call the flow of pulp from South America to China the "Celulose Corridor" (in Brazilian Portuguese). China's economic development has been slowing down, a closing-down of China is also evident – what will the consequences be for tissue?

CASE FOR AI IN TISSUE TODAY: SUPPLY CHAIN DOMINO ANALYSIS

The world's trade flows are no secret, and data even on single company level is publicly available on, for example, each marine shipment to the US, where it came from, what it contains, who made it, which ports it passed through, and how long it took. Doing an Al analysis* on the supply chains from China to the US revealed a frighteningly large amount of detail about the vulnerability of individual companies and what ports and producers were indicators to follow in predicting supply chain disturbances. Tissue does not do travel, but pulp does – Al can help in anticipating global tissue market movements.

WHERE WILL CHANGES COME IN TISSUE AND HYGIENE?

There are several ways to analyse what is coming up – e.g. patents, company activities, and funding. In patents, we have noticed a "calm before the storm" phenomenon. There is activity in patenting in a certain area over a period of years. Then, a calm settles over the area. Often, after a calm of two to three years, items come out on the market. The calm indicates a focus to get the products ready and likewise, significantly linking funding and technology yields. Using AI to analyse global funding (sizes, who does the funding, when, and what type) also helps in predicting movements in markets.

CASE FOR AI IN TISSUE TODAY: AFRY FUNDING CURVE

We developed a combination of tools and visualisations for analysing funding and its implications. Fig. 2 shows what we call the what we call the AFRY Funding Curve. It is one of the simpler visualisations from mining funding in hygiene and tissue development, worth around €17bn in the 2000s. We see that a small proportion only is in the early "gearing up" stages, a majority in the main stages and a considerable part in post-Initial Public Offering. This denotes a sector where strong players are able to push things further, both in resources and also in time. This profile becomes even more interesting when benchmarked against other sectors with deep dives – but that is a story for another day.

CUSTOMISED ASSISTANTS:TISSUEBOT AT OUR SERVICE

Different AI tools have different tasks. Some assimilate large amounts of data (numbers, text, pictures) and form connections so that they can assist the human in thinking above results from tedious and, well, infeasible amounts of work. As an example (which does not even attempt to go too far, but is real): we made one of the assistants we have taught, TissueBot, combine:

- a) trend research (Gen Z)
- b) patent analysis
- c) product creation and
- d) marketing

CASE FOR AI IN TISSUE: BE A COMBINED TREND RESEARCHER, PRODUCT DEVELOPER, PATENT EXPERT AND MARKETER

We tasked TissueBot with coming up with suitable hygiene/tissue products appealing to Gen Z, and asked it to give patents to use as technology. Furthermore, we asked for naming, logos and "marketing speak". The outcome, without the illustrations and with patent numbers stricken out, is below:

- "ComfortWave Tissues
- "Softness That Speaks to You"
- Ultra-Soft Texture: Enhanced by the latest softener concentrates and emulsions (ref. to specific patents).

- Customisable Experience: Options to choose your preferred bulk and lint levels (ref. to specific patents).
- Innovative Quality: Superior absorbency and durability using nanofibrillated cellulose technology (ref. to specific patents).

ComfortWave Tissues are designed for the modern consumer who values ultimate comfort and personalisation. With ultra-soft textures that provide a luxurious feel, customisable bulk and lint options to express your unique preferences, and cutting-edge nanotechnology for superior performance, ComfortWave Tissues cater to all your needs. Say goodbye to brand loyalty and hello to a new wave of comfort with ComfortWave Tissues – softness that truly speaks to you.

By aligning with Gen Z's trends and incorporating the latest innovations, ComfortWave Tissues are set to become a favourite in households everywhere, offering a truly personalised and comfortable tissue experience."

SO, WHAT NOW AND NEXT?

This is not a large, detailed chapter – just a pointed entry on the fact that AI is already here, has actually been here since the 1950s, and can already do more than most "visionary" claims say it will do sometime decades after today. We could put in work done on

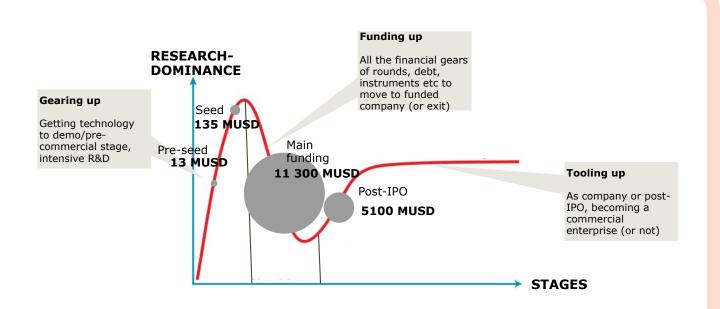
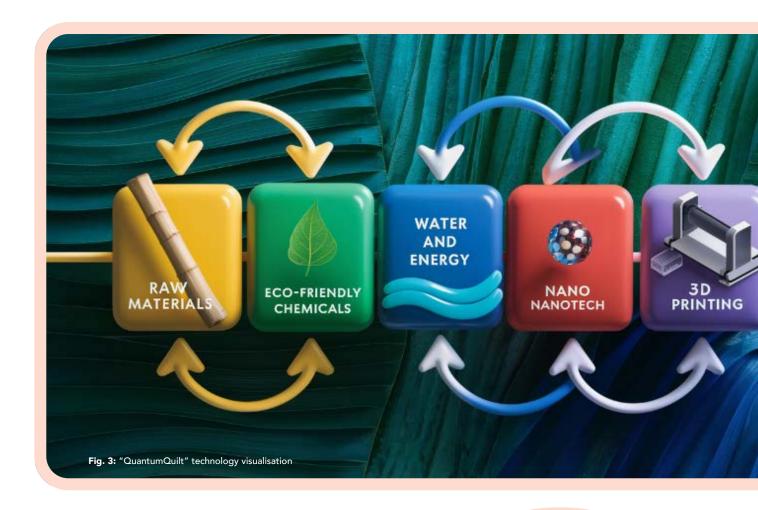


Fig.2: AFRY Funding Curve for hygiene and tissue in the 2000s



developing new tissue machines and technologies and other items of potential interest, but we hope the point has been made. As a glimpse, an illustration drawn by the writers with AI assistance (after an initial idea and about 20 iterations) for a new tissue technology concept, "QuantumQuilt".

Why does it seem Al is not used more, since for a while now it has already done all of this? Maybe it is better not to ask, but instead just do. Why does it seem AI is not used more, since for a while now it has already done all of this? Maybe it is better not to ask, but instead just do.



* "Al analysis" is very generic. We could describe in detail what data was used, what algorithms were used and so on. However, that is not the point in a short overview – and it gets complicated fast

NEWS IN BRIEF

A roundup of news from across the global tissue industry. To get the very latest news go to www.tissueworldmagazine.com

NORTH AMERICA

SOFIDEL TO ACQUIRE CLEARWATER PAPER'S TISSUE BUSINESS FOR \$1.06BN

Sofidel is to boost its presence across North America after signing a definitive agreement to acquire Clearwater Paper Corporation's tissue business (CLW Tissue).

The transaction includes an annual production capacity of 340,000 metric tons distributed across four production sites in Shelby, North Carolina, Lewiston, Idaho, Las Vegas, Nevada, and Elwood, Illinois.

With sales of over \$1.0bn, CLW Tissue is a premier player in the North American tissue market, providing high-quality tissue products to key retailers operating across multiple channels including grocery, club, mass merchants and discount stores.

Sofidel said the acquisition "marks a significant milestone" in its growth in North America. The Italian-headquartered company has been present in the region for over 10 years.

Completion of the acquisition is expected within 2024 and is subject to receipt of customary regulatory approvals and satisfaction of other customary closing conditions.

The acquisition will strengthen Sofidel's customer offering in North America, expand its technology capabilities (including TAD).

The transaction is expected to close in 2024, subject to receipt of customary regulatory approvals and satisfaction of other customary closing conditions.

Luigi Lazzareschi, Sofidel Chief Executive, said: "We are extremely proud of this transaction, which represents a crucial milestone in our history.

"Thanks to this transaction we are acquiring a strategic network of four manufacturing plants which will enlarge our products portfolio thanks to the TAD technology and create the conditions to significantly strengthen and sustain growth in North America.

"We welcome CLW Tissue's employees to Sofidel and are excited to enhance together our value proposition for our customers."

KRUGER PRODUCTS ANNOUNCES PRICE HIKES IN CANADA

Kruger Products will be increasing the price of its consumer branded and private label tissue products sold across Canada. The company said the price hike will take effect as of 2 September 2024. It added that the increase will be in the high single digits and is required "to offset significant and rapidly escalating commodity costs and inflation".

Kruger Products manufactures quality tissue products for household, industrial and commercial use.

SUZANO AGREES \$110M PURCHASE OF TWO US INDUSTRIAL FACILITIES FROM PACTIV EVERGREEN

Suzano has announced the acquisition of industrial assets from Pactiv Evergreen in America. The move will expand the company's operations in North America and marks its entrance into the consumer and food service packaging segments in the region.

The \$110m transaction includes two mills in Pine Bluff, Arkansas, and Waynesville, North Carolina, that manufacture liquid packaging board and cupstock.

Subject to final regulatory approval expected later this year, these assets will add approximately 420,000 metric tonnes annually of integrated paperboard to Suzano's production capacity.

Alongside the acquisition, Suzano has signed a long-term supply deal with Pactiv Evergreen to provide liquid packaging board for its converting business.

GLOBAL

ESSITY "IN BETTER SHAPE THAN EVER" IN LATEST RESULTS

Essity has reported "strong earnings and good underlying growth" in its Q2 interim report, as net sales decreased 1.2% to SEK36,617m.

Organic growth amounted to -0.9%, and excluding restructuring and exited contracts volumes increased 2.9%.

EBITA increased 27% to SEK 5,237m, while profit for the period, total operations, amounted to SEK3,333m.

Magnus Groth, President and Chief Executive, said: "Essity is in better shape than ever, reporting strong second-quarter earnings with good underlying growth and its highest operating profit (EBITA) to date.

"All business areas achieved higher EBITA margins compared with the preceding year. We presented new ambitious financial targets during the quarter, and initiated a share buyback programme".

He added that all categories reported higher volumes, excluding the restructuring in Professional Hygiene, and in several categories, he said the company outperformed the market in terms of growth.

"The quarter shows the results of our greater emphasis on profitable volume growth based on attractive product offerings, increased investments in sales and marketing, and cost savings."

All business areas also reported a higher EBITA margin: "We maintained strong price discipline, and there was hence a further widening of the gap between our sales prices and costs."

He said the company's aim is to grow organically by more than 3% per year and have a margin of above 15%.

VALMET TARGETS AFH MULTIFOLD PRODUCTS MARKET WITH LATEST MACHINERY LAUNCH

Valmet has announced the official launch of its latest generation of technology – MTC Wizard.

Aimed at the multifold products market, the machinery supplier said the innovation "enhances client benefits in tissue folding in the AfH market".

Giovacchino Giurlani, Director of Technology for the Tissue Converting Business Unit, said: "The MTC Wizard elevates the production of multi-panel, Z and W fold, AfH products such as hand towels.

"It guarantees high-speed performance, through an innovative folding process, boosting production capacity and overall efficiency."

The supplier added that the machinery "minimises issues of paper stress and wrinkling that are common challenges for tissue folding producers through several technological advancements."

Its Vacuum Assisted Mechanical fold (VAM fold) system replaces traditional methods by pulling the paper into the clamp through vacuuming, which Valmet said eliminates the wear and tear usually caused by mechanical grippers and tuckers. It added that this leads to "reduced maintenance downtime, increased reliability, and performance for single-ply, low-bulk products."

The technology also includes Valmet's Self-Adjusting Machine (SAM) solutions, the SAM Vacuum and SAM Cut.

The supplier said these two solutions

"offer significant advantages to customers such as enhanced monitoring of the production process and waste reduction, ensuring seamless operation with minimal manual intervention."

Giurlani added: "Our primary goal in this project is to optimise the price per ton of multifold AfH products. Furthermore, the MTC Wizard's design enables easy access, speeds up maintenance operations, and facilitates cleaning, ultimately increasing operator safety."

SUZANO TERMINATES TALKS TO BUY INTERNATIONAL PAPER

Brazilian pulp and tissue manufacturer Suzano has confirmed talks over a potential takeover of International Paper (IP) have now been terminated.

Reports had claimed the company was in talks to offer a higher bid for the previously announced \$15bn acquisition of IP. However, a statement made on 26 June by Marcelo Feriozzi Bacci, Suzano's Chief Financial and Investor Relations Officer, said that the company had "reached the maximum price for the transaction to generate value for Suzano, without engagement from the other party."

It added: "Therefore, Suzano formalises that it will not pursue a transaction involving the acquisition of International Paper. It is important to emphasise that it has always been a condition of Suzano for the completion of this transaction that the engagement between the parties be based on private, confidential, and amicable terms.

"As it was not possible to proceed in this manner, Suzano has decided to terminate the negotiations."

"Suzano will not pursue a transaction involving the acquisition of International Paper. It has always been a condition that the engagement between the parties be based on confidential, and amicable terms."



CHINA

C&S PAPER BOOSTS PREMIUM TISSUE PRODUCTION WITH TM INVESTMENTS

C&S Paper is to boost its production capacity after investing in two Andritz-supplied PrimeLineCOMPACT tissue machines to be installed at its plant in Suqian City, Jiangsu Province.

The machines will produce tissue for household paper, napkins, handkerchiefs, facial tissues and toilet paper.

They will each have a maximum capacity of 94tpd, a design speed of 1,650m/min and a width of 3.5m.

Lin Tiande, Vice President, C&S Paper, said: "Increasing consumer health awareness and improved living standards are driving the demand for superior tissue qualities."

POLAND

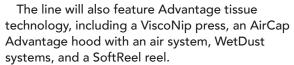
VELVET CARE TO INSTALL THIRD ADVANTAGE DCT 200 TM

Velvet Care is to boost its annual production capacity by 70,000 tons after investing in a third Valmet-supplied Advantage DCT tissue line to be installed at its mill in Osada Klucze.

According to the machinery supplier, the target is "to meet consumers' increasing demand for high-quality tissue products with low environmental impact."

The scope of supply comprises an Advantage DCT 200 tissue machine equipped with an OptiFlo headbox and a Yankee cylinder.

Velvet Care is to boost its annual production capacity by 70,000 tons after investing in a third Valmet-supplied Advantage DCT tissue line to be installed at its mill in Osada Klucze.



Valmet has previously delivered two tissue lines to the same mill, starting up in 2018 and 2021.

The new tissue line will have a design speed of 2,200m/min, a width of 5.6m, and produce 70,000tpy.

BRAZIL

SUZANO ANNOUNCES BETO ABREU AS CEO

Suzano has announced that Beto Abreu has formally succeeded Walter Schalka as Chief Executive.

Abreu has held senior executive positions at companies including Shell and Raízen, and most recently as Chief Executive of Rumo, Brazil's largest independent railway logistics operator.

His appointment was announced in February 2024. Following a three-month transition period he now succeeds Schalka, who served as Suzano's Chief Executive for 11 years.

Abreu said: "As we expand into new markets and grow Suzano, we will continue to be a leader on sustainable business.

"Importantly, we will double down on investing in innovation and strengthening our strategic partnerships."

SUZANO STARTS OPERATION OF WORLD'S LARGEST PULP PRODUCTION LINE

Suzano has boosted its pulp capacity by over 20% after starting production on its \$4.3bn Cerrado Project – the world's largest single pulp production line.

Based in Ribas do Rio Pardo, Mato Grosso do Sul state, the facility will have an annual production capacity of 2.55m tonnes of eucalyptus pulp, increasing Suzano's production capacity to 13.5m tonnes a year.

Some \$3.1bn was allocated for the construction of the plant and \$1.2bn earmarked for the formation of the planting base and the pulp outbound logistics.

Suzano also has the capacity to produce 1.5m tonnes of paper per year, including sanitary paper, printing and writing and packaging lines, among other products that use pulp as raw material.

Beto Abreu, Suzano Chief Executive, said: "The successful completion of the Cerrado Project reflects the dedication and execution capability of each person involved in this grand and transformative project."

The company said the site has been "purpose-

built to meet global demand for sustainably produced eucalyptus-based products."

The mill will use renewable biomass to produce 180 MW of surplus green power a month. This energy will be directed toward the mill's local suppliers as well as the national grid, and is enough to power a city of up to two million inhabitants.

It is the largest investment in Suzano's 100year history and has a series of operational and socio-environmental advances.

Walter Schalka, who recently stepped down as Chief Executive of Suzano after an 11-year journey in charge of the company, said: "The new plant will lay the foundations for future growth opportunities, such as the development of innovative new products from renewable raw material, and strengthen Suzano's irreplicable business model."

UNITED KINGDOM

K-C LOOKS TO CLOSE PROFESSIONAL TISSUE AND BABY WIPE PLANT

Kimberly-Clark (K-C) is consulting on the proposed closure of its manufacturing site in Flint, north Wales, after the UK government announced it will ban the sale of wet wipes containing plastic.

The facility manufactures K-C Professional Bath Tissue (Toilet paper), Facial Tissue, Wipers and Handtowels, as well as baby wipes.

It is now expected to close in 2025, putting the jobs of more than 200 people at risk.

A spokesperson for K-C said: "Phasing out plastics from our baby wipes has long been part of K-C's sustainability plans and we have already removed a significant amount of plastic from them.

"However, we're unable to meet the UK Government's deadline of mid-2026 as it significantly limits our ability to adapt our consumer manufacturing processes in Flint in time, which means it may no longer be viable to keep our consumer and B2B sites operational.

"Should the site closure proposal go ahead, we will keep the Flint site operational into 2025 and will continue to work closely with our customers and retailers on transition plans for affected products."

Announced on 22 April 2024, the UK Government has said it will introduce legislation to ban wet wipes containing plastic.

It said: "Defra intends to bring forward the legislation for England ahead of summer recess, with Northern Ireland, Scotland and Wales following by the autumn as part of an aligned approach to bring the ban into force.

"Wet wipes containing plastic break down into microplastics over time, which research shows can be harmful to human health and disrupt our ecosystems – with a recent survey showing an average of 20 wet wipes were found per 100 metres

of beach surveyed across the UK*."

*For the period 2015 to 2020, an average of 20 wet wipes were found per 100m of beach surveyed across the UK according to Defra Beach Litter Monitoring Data.

OATAR

ZAIN PAPER INDUSTRY COMPLETES SECOND PHASE OF EXPANSION – AND ANNOUNCES STAGE THREE

Zain Paper Industry is implementing its second expansion phase after signing up Overmade to supply an additional two complete tissue production lines to be installed at its production facility in Doha.

It follows the announcement in 2023 that the company was to increase its high-quality facial tissue production capacity after signing up Overmade to install the first two complete tissue plants, TM1 and TM2, at the Doha facility.

In the second phase of the project, two further Over CR C20 complete tissue machines have been installed.

The scope of supply includes virgin pulper to approach flow system, hydraulic headbox to reel, winding system to wrapping line, steam system, high efficiency hood, mist and dust removal system.

The DCS (Distributed Control System), the QCS (Quality Control System), the Sectional Electrical Drives and the Electrification of the entire tissue mill are also included.

Four lines will each produce 30,000tpd of produce high-quality facial tissue, using softwood and hardwood virgin fibres.

Each line has a speed of 2,000mpm with a reel trim of 2,750mm.

Elie Wanna, Chief Executive of Zain Paper Industry, said: "We are proud to announce the Zain Paper Industry tissue park project in Qatar.

"It is an important investment that is located on a plot of land exceeding 123.000m², and which has been and will be developed in multiple phases.

"Phase one included two Overmade-supplied lines, one tissue converting plant and one diaper plant.

"We have also enthusiastically announced phase two that includes the installation of two tissue machines and production lines from Overmade.

"Phase one included two Overmade-supplied lines, one tissue converting plant and one diaper plant, and we have enthusiastically announced phase two that includes the installation of two tissue machines and production lines from Overmade.

"Parallelly, we are also announcing the already programmed phase three which includes the supply of two extra tissue lines – TM5 and TM6 – equal to the four already implemented."

Each line will be dedicated to a single product.

UK TISSUE ENTERS AN ERA OF RENEWAL AFTER 15 YEARS OF STAGNATION AND MACHINE SHUTDOWNS



ntil about 25 years ago, North American companies such as Scott, Kimberly-Clark, Fort Howard, and James River significantly shaped the tissue market in the United Kingdom. Their influence led to a blend of consumer tissue culture between Europe and North America, particularly in product designs and advertising. Currently, only Kimberly-Clark remains, and continental European companies have taken over the ownership of the other American companies.

From 2007 to 2021, domestic tissue production capacity decreased by about 18%. However, the tissue industry is now in a renewal phase, with new machine investments underway, and capacity expected to increase through 2027.

A map of operating tissue mills is shown in Figure 1. The mills are a mix of recycled integrated sites and non-integrated mills using purchased virgin fibre. It's important to note that the United Kingdom does not produce virgin fibre.

The United Kingdom has recently held an election that resulted in a shift in power, amidst significant concerns about the economic trajectory. However, conditions to support tissue demand are still favourable. As illustrated in Figure 2, the population is increasing at an estimated rate of 0.45% in 2024, supported by immigration. The growth of GDP per person (adjusted for purchasing power parity), shown as a blue line, recovered after the Covid-19 pandemic,



Figure 1: United Kingdom Tissue Mills

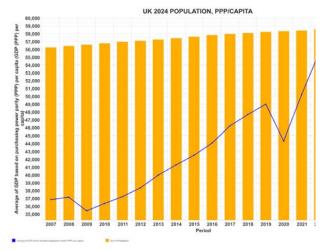


Figure 2: United Kingdom Population and GDP/Capita (PPP)

but growth slowed in 2023 and is expected to continue this trend.

Figure 3 shows the United Kingdom's unemployment recovery since the Great Recession, represented by the yellow bars. Although inflation, depicted by the blue line, has declined rapidly since 2022, consumers still feel its shocks. These statistics suggest good support for ongoing consumer demand. However, they seem to overlook the concerns raised during the recent election cycle.

The long-term decline in tissue capacity led to a doubling of tissue imports, which peaked in 2021 due to pandemic-related closures. Tissue suppliers shifted from France and Belgium to Türkiye and China, though France and Germany continued to play a role in the supply chain. As later discussed, and illustrated in Figure 6, the volume of tissue imported is expected to decrease as new domestic capacity comes online.

Imports represent about 20-25% of the import rate in Figure 4. Figure 5 shows tissue exports from the United Kingdom. Ireland remains the largest export market for tissue from the United Kingdom, followed by Germany and France.

Figure 6 shows the changes in the number of operating tissue machines. The net count of tissue machines fell by eight from 2007 to 2021. FisherSolve shows new machines added in 2022 and 2024, with additional expected new machines in 2025 and 2026. The net effect will be a return to 2007's number of machines, but replacing newer and larger capacity equipment will result in an over 40% overall capacity increase versus the peak production capacity in 2007.

The current tissue production in the United Kingdom consists of 60% integrated recycled

The long-term
decline in tissue capacity
led to a doubling of tissue
imports, which peaked in
2021 due to pandemicrelated closures.



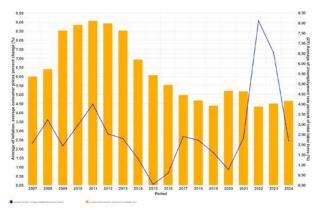


Figure 3: United Kingdom Inflation and Unemployment

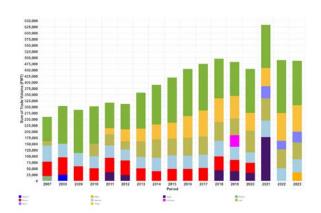


Figure 4: United Kingdom Tissue Imports

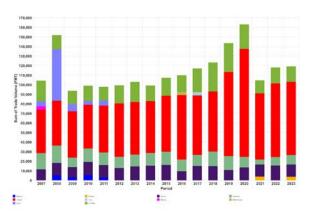


Figure 5: United Kingdom Tissue Exports

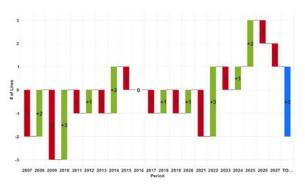


Figure 6: United Kingdom Tissue Machine Count Changes

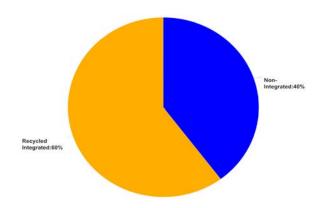


Figure 7: United Kingdom Tissue Site Fibre Integration

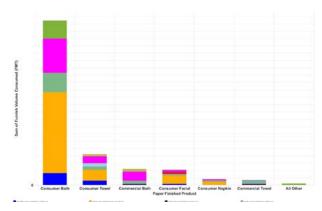


Figure 8: United Kingdom Tissue Products and Fibre Sources

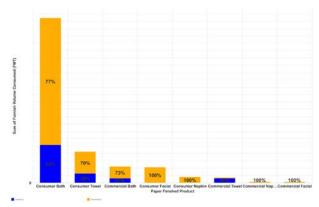


Figure 9: United Kingdom Tissue Products by Technology

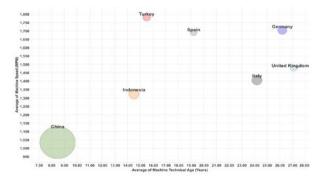


Figure 10: United Kingdom Tissue Machine Quality

fibre and 40% virgin imported pulps, as shown in Figure 7. Notably, there are no virgin pulp mills or integrated virgin tissue sites in the UK. Almost 25% of tissue production employs advanced processes, specifically TAD technology, which was introduced by American companies.

Figure 8 shows a breakdown of tissue finished products by production volume and average fibre types. Consumer bath tissue represents 69% of production. About half of this production is based on bleached eucalyptus fibre augmented by recycled fibre, northern softwood, and northern hardwood.

Consumer towels are the second largest category, using northern and southern softwoods, eucalyptus fibre for softness, and some recycled fibre. Commercial bath is the third largest product type, using over 50% recycled fibre. Consumer facial tissue follows closely in volume but uses over 50% eucalyptus fibre. These fibre applications are as expected, but the almost 60% eucalyptus fibre in consumer napkins was surprising and suggests that British consumers value softness.

Figure 9 shows the same finished tissue product breakdown by volume as Figure 8, except that each product bar is stacked by the type of tissue technology applied. Advanced technology (TAD) is employed for 23% of consumer bath tissue, 30% of consumer towels, 27% of commercial bath towels, and 84% of commercial hand towels. Applying advanced tissue base sheet technology in commercial hand towels makes sense to get the most hand dries out of a roll. Still, this rate is much higher than in the United States, where consumer bath and consumer towels get much more technological attention.

A comparative analysis of tissue-producing countries was conducted using the United Kingdom's tissue trade partners. This set includes China, Germany, Indonesia, Italy, Spain, and Türkiye. This comparison set allows for a review of the United Kingdom's current tissue fleet as of Q2 2024.

Figure 10 illustrates this comparison, plotting the average technical age of each country's machines on the X-axis against the average tissue machine line speed on the Y-axis. The size of each bubble represents the total capacity of each producing country. The United Kingdom has the oldest tissue machine fleet.

Notably, while Türkiye, Spain, and Germany operate at higher speeds than the UK, alternatively, when considering machine capability through wire or trim width instead of speed, the UK ranks just behind Türkiye in terms of productivity. It is important to note that this analysis is based on average data for each country as of mid-2024.

Figure 11 shows a comparison of the same countries alongside the United Kingdom, focusing on the average cash cost of producing a ton of tissue. The height of each bar indicates the production cash cost for each country, while the width represents their relative tissue capacity. Additionally, the coloured segments within each bar illustrate the various costs

TISSUE TREB(R

Tissue • Toweling • Napkins • Wet/Dry Crepe • Wiper Grades

Your most reliable source for parent rolls of tissue since 1972.



NEED TISSUE? Come to the leader.

Trebor Provides:

- The Largest Source of Supply
- Competitive Pricing
- Expert Market Knowledge
- International Expertise
- Responsive Customer Service

When you think tissue... think Trebor.







involved, including raw fibre materials, market pulp, chemicals, energy, labour, materials, overhead, and any credits.

The United Kingdom has the highest production costs among the group. A comparison of the colour-coded bar stacks reveals significant differences, particularly in overhead and energy expenses faced by UK mills. Reducing energy costs to align with the average of the group could bring the UK's costs closer to those of Germany.

A snapshot of the average tissue machine and mill viability is shown in Figure 12. In this case, the cost of the bar height is determined by viability factors, where cost is only one of the eight factors considered. The legend shows these factors as capital required, cost, grade risk, internal company risk, competitiveness, size, technical age, and tons per unit trim.

Türkiye, Indonesia, and Spain perform well in this comparison, positioned at the lower end of this set. At the right-hand end of the chart, Germany, the United Kingdom, and Italy show significantly higher risk scores. The investments underway now in the UK will start to address these risks.

Figure 13 displays carbon emissions per finished metric ton, explicitly focusing on emissions from tissue machines on-site and excluding pulp production at integrated sites. Scopes 1 and 2 emissions were chosen as they are most likely to be included in a carbon analysis by potential consumers and governments. The colours stacked in each bar represent the source of each emission. The two key areas are fossil fuel consumption on-site for power and heat during tissue drying and the fossil fuel content of electricity grid production.

The United Kingdom ranks well in this analysis, falling in second lowest after Spain. Scope 1 emissions are higher than those from Spain, Germany, and Indonesia. The United Kingdom's Scope 2 emissions from purchased electric power are relatively low compared to Germany, Indonesia, and China.

The domestic tissue business in the United Kingdom is expected to experience growth after 15 years of stagnation and machine shutdowns. In 2024, its competitive position is adequate. However, ongoing projects are set to reverse this decline if completed as planned. The additional capacity should decrease the rate of tissue imports by at least half, allowing for a rate comparable to earlier levels and satisfying the needs of the growing population and economy.

The new UK government and its acknowledged economic issues pose vital risks. Will these projects remain on track in the face of economic headwinds? However, the tissue business tends to weather the economic problems better than most, and both European and domestic companies involved are unlikely to backtrack in the face of minor challenges.

Specific details about tissue producers and individual machines are needed to analyse the competitive

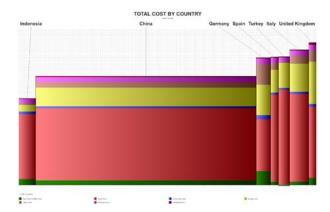


Figure 11: United Kingdom Tissue Production Cash Cost Comparison

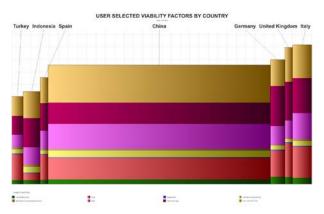


Figure 12: United Kingdom Tissue Machine Viability Comparison

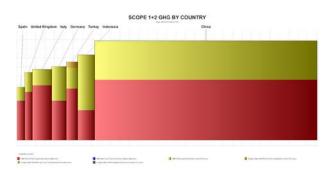


Figure 13: United Kingdom Tissue Scope 1 and 2 Carbon Emissions Comparison

position. This article provides a static summary of the current tissue industry in the United Kingdom. Fluctuations in fibre prices, exchange rates, and environmental regulations will introduce advantages and challenges for participants. Furthermore, tissue mills in the UK will continue to change ownership and consolidate, and neighbouring countries' investments in tissue-making capacity may impact imports and exports.

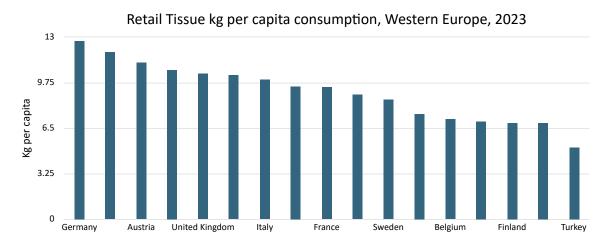
UK CONSUMERS
ARE STILL
CHANGING THEIR
TISSUE CHOICES
FOLLOWING THE
PANDEMIC AND WFH,
POSING GROWTH
CHALLENGES AS VALUE
SALES VASTLY OUTPERFORM
VOLUME SALES

While per capita tissue consumption is higher than pre-Covid levels, the mature UK market is still normalising with private label performance strong. Analysis by Per Brandberg, Consultant, Euromonitor International.

he tissue market in the UK has had varying experiences in 2023, with volume declining but value increasing. Inflation, raw material cost increases, unit prices increasing and consumers being more cost conscious have all been key influences on the past year. Brands will have to take multiple factors into account such as affordability, convenience, as well as a comeback for sustainability among consumer demand to set themselves up for growth in the coming years.

To put the United Kingdom tissue market in context, it has one of the highest retail tissue volume per capita consumptions in Western Europe with 10.6kg per person in 2023, only surpassed by Germany, Austria, Ireland, and Greece. Like with most other countries in Europe, the category was heavily impacted by the pandemic in 2020, which

The United Kingdom has one of the highest retail tissue volume per capita consumptions in Western Europe with 10.6kg per person in 2023, only surpassed by Germany, Austria, Ireland, and Greece.



Source: Tissue and Hygiene 2024 research edition published February 2024

spiked the per capita consumption. However, it has been on a declining trend in the years since as the market is still normalising. The per capita consumption is still higher than pre pandemic levels though, and is not expected to drop down below those levels soon either, indicating that there has been a change in consumers' tissue consumption habits.

However, the main story of 2023 has rather unsurprisingly been a continuation of the inflation impact. Even though inflationary pressures in 2023 marginally eased when compared with 2022, it continued to exert strong influence on the demand for tissue products across the UK. Sales mostly rebounded in the second half of 2023, although not sufficiently to avoid volume declines for the third consecutive year. Value sales vastly outperformed volume sales, primarily due to the recent surge in raw material costs as well as increased manufacturing costs over the last year or so, which were passed on to the end consumer in the way of unit price increases. Throughout 2023 there were significant decreases in pulp costs, which enabled manufacturers and brands to decrease prices – with private label brands usually taking the lead on price cuts.

Even though the brunt of the impact has already been experienced on the market in previous years, the gradual return to workplaces, either partially or fully, continues to negatively impact the tissue category as well as other social activities such as outdoor dining, leading to less demand for retail tissue products. Many consumers still spend a large part of their leisure time at home, with cooking at home remaining popular and a way for consumers to cut down on costs when high inflation has made many more conservative in their spending.

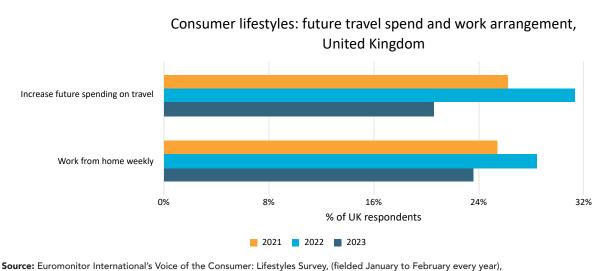
This is acting as a positive demand driver for retail tissue products in the UK and is keeping the market at a higher level than when comparing with 2019 numbers.

Even though categories such as paper towels and toilet paper experienced a decline in volume terms in 2023, some smaller categories managed to stay in the positive. For instance, facial tissues witnessed growth in both volume and value terms in 2023, with consumers opting for the product to ease their hygiene and cleanliness worries and with products incorporating antibacterial and skin moisturising properties.

RIVATE LABEL: 65% OF UK VOLUME SALES IN 2023

Private label: 65% of UK volume sales in 2023 Looking at the competitive landscape in the UK's tissue market and we find well-known companies like K-C, Essity and the Sofidel Group, and yet the category is dominated by private label brands. Accumulated, private label represents over 65% of volume sales in 2023, with value sales coming in a bit lower at 44% because of the usually lower price point.

Private label had a very strong performance in 2023, increasing in both volume and value terms while other brands struggled with declines in terms of market share. The rising cost of living continued to strongly influence shopping behaviour, prompting consumers to continue the shift from branded to private label for essential items as a moneysaving strategy. Private label producers effectively leveraged this competitive advantage by investing in convenience and sustainability while keeping prices lower than branded counterparts. Retailers such as Sainsbury's and Aldi pioneered in passing on



2021 n=40732, 2022 n=39832, 2023 n=40691

raw material cost reductions to their private label tissue products in the second half of the year.

AfH

Another dimension to the tissue market is the AfH tissue categories, which offered a similar picture in terms of growth. Inflation once again played the most important role in driving value growth because of increased prices of raw materials, such as pulp, while volumes marginally increased in 2023 because of consumers returning to the office more frequently and resuming more regular trips to foodservice establishments and public settings such as shopping centres.

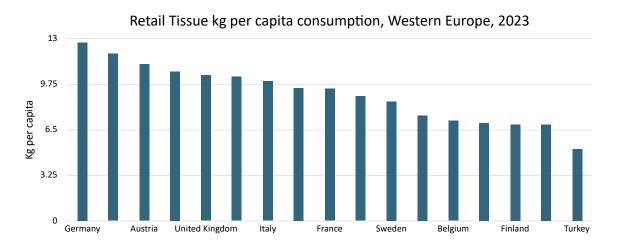
As travel heavily decreased in 2020 and consumers spent considerable time at home, AfH tissue was particularly impacted in public places, with offices and airports experiencing a notable reduction in foot traffic. The return to work and travel habits has been a gradual process, with inbound arrivals to the UK not expected to recover to 2019 levels until 2024, which is likely to support the full recovery of AfH tissue volumes. This was also evident in Euromonitor International's Voice of the Consumer: Lifestyles Survey (fielded January to February 2023); while the number of respondents in the UK indicating they would increase their spending on travel grew in 2021 and 2022, this had decreased in 2023 as inflation and high prices forced consumers to reconsider their plans and reprioritise their costs.

Another factor that has had a major impact on the AfH channel is that many employees are still working from home, at least as part of a hybrid model. As with retail tissue, the main part of the impact has already been experienced in the immediate years that followed the pandemic. However, the continued effect of a change in consumer behaviours following the pandemic and lockdowns are still playing a significant part in the development of the category.

Working from home during the pandemic considerably reduced the need for AfH tissue, resulting in a shift to retail tissue instead. However, with restrictions easing, most companies have adopted a hybrid approach to working where

As travel heavily decreased in 2020 and consumers spent considerable time at home, AfH tissue was particularly impacted in public places, with offices and airports experiencing a notable reduction in foot traffic.





Source: Tissue and Hygiene 2024 research edition published February 2024

employees attend the office on a more regular basis, which acts as a positive demand factor for AfH tissue. This is also visible in survey data, where according to Euromonitor International's Voice of the Consumer: Lifestyles Survey (fielded January to February 2023), there was a decline in the number of respondents in the UK indicating they work from home weekly between 2022 and 2023, falling from 26% to 21%.

FUTURE OUTLOOK

Both retail and AfH tissue products are expected to experience stable growth in both volume and value terms throughout the forecast period. In an environment where low population and consumer expenditure growth is expected, and with the demand for tissue products mature and well-established, the forecast period is likely to see low volume expansion.

Inflation affecting raw materials and consumer goods is likely to ease, alleviating some of the pressures on consumers' income and thereby supporting modest revenue growth in the coming years. This presents a major challenge to players aiming to remain competitive while fostering growth in a mature category.

Companies are expected to continue to explore strategies such as themed packaging, a broader range of sheet sizes and sophisticated designs, while efforts to meet increasing demand for convenience and sustainability will be another challenge for manufacturers and brands within the industry.

Facial tissues, a category that managed to grow in a difficult environment, is well situated to continue this positive trajectory through continued innovation in both packaging and product. However, the product will need to tackle the sustainability concern that comes with disposable tissue products, which the rest of the category will need to as well.

Private label lines are investing in more sheets per roll and plastic-free packaging, while brands that use bamboo as their fibre source and offer plastic-free packaging are entering the local market to target consumers willing to pay a higher unit price. This places pressure on established players, which may face share losses in this competitive environment.

Facial tissues, a category that managed to grow in a difficult environment, is well situated to continue this positive trajectory through continued innovation in both packaging and product.



FASTER, LEANER, NEWER, BIGGER ... INDEPENDENT MARKET LEADER POPPIES EUROPE REAPS THE REWARDS OF LONG-TERM PLANNING

Buying up an adjacent former aluminium casting mill in the northwest of England is the latest move to develop "vertically and horizontally," ready to seize new opportunities. Director Armindo Marques spoke to TWM Senior Editor Helen Morris from his home office in Portugal.

WM first met Armindo Marques, Poppies
Europe Director, and his team in May 2019
at the company's six-acre St Helens plant
in northwest England. At the time, the
independent Northern Powerhouse company was
converting 15,000tpy, producing an impressive 10m
napkins per day. It remains the UK's market leader
in the printed napkins sector, manufacturing and
supplying napkins, printed napkins, and additional
disposable tabletop products under the Poppies
brand name as well as bespoke own-label products,
mainly for the AfH catering and retail sectors.

The company had created – and since maintained – a strong niche in the paper tableware market, growing through innovation and also strategic acquisition of competitors such as McNulty Wray, which is acquired in 2012, and Staples Away From Home which it purchased in 2015. Elsewhere, organic growth included the purchase of two high-capacity twin lane OMET napkin lines in 2018 to complement the existing 13 OMET lines already on site, and seven Servotec's machines. Then, there were 34 production lines and 169 staff, and the site was also home to the largest fleet of modern napkin printing machines in the UK.

The focus was on the long-term, and the company had invested heavily and accordingly.

Now in August 2024, the business hasn't rested on its laurels. Most recently, Marques says the company has had "the fantastic opportunity" of acquiring the site next door: "Overnight, we have doubled our space to 12+ acres. The site was originally an aluminium casting mill and in the recent years a

recycling operation for electronic consumer devices, so it came with the benefit of 10MW electrical power, gas, and environmental permits. This has given us a lot of scope for development, vertically and horizontally."

He explains the company's growth recipe has remained the same: "A generous dose of competitiveness to grab some market share, a handful of product development to enlarge our offer, and a pinch of acquisitions to rationalise the lot."

Concretely, the business has bought more napkin machines: "They are faster, leaner, and we have created new brands, mainly in the sustainable space," he says. In 2020, it also purchased the tissue division of Terinex, one of the UK's leading flexible packaging companies offering premium and sustainable flexible packaging items for the food and beverage, pet and medical sectors.

"Terinex was operating in facial tissue for many years and had a well-established brand in the AfH market "Cloudsoft". We have housed all the production lines in our site and now produce the Cloudsoft tissues in St Helens along with our other brands Poppies, Cloud 9, Happy trees, Combinations, and McNultywray," he adds.

For future growth, Marques believes strongly in the company's recipe: "We will keep fine tuning it as the market opportunities come along with the added benefit of our new site that will enable us to act swiftly for any future acquisitions."

Sustainability is a key focus: "Sustainability is no more a trend; it is part and parcel of any product that we supply. The customers are now very



Independent Northern Powerhouse: Overnight, Poppies Europe doubled its space to 12+ acres

knowledgeable and demand and specify exactly how far down this path they want to be. Will it be recycled, unbleached, FSC-certified, fossil-free. It is really a fantastic and exiting development of our industry and I feel we are just at the start."

Poppies Europe has now finished the first stage of its solar project and is going to put more focus on packaging reduction. "A few years ago, we introduced Cloud 9, a product with less packaging and less carbon footprint by design. The popularity of this napkin confirms us in the path to take. And before the end of 2024, we will be able to offer 100% paper packaging and be plastic-free for the whole napkin range we produce."

Another change for the market has been induced by the uncertainty caused by current conflicts and political troubles that have made the supply chains "more challenging": "Therefore, the buyers want to source closer to home. This trend largely benefits us, especially in the retail sector."

Covid-19 times hit the company's market (hospitality) "very hard": "But the recovery was fast, and the pain has faded away to a point that it now seems a decade ago. I feel that no new tissue buying habits have survived this period. But I bet the hygiene guys might have had a different experience."

So far, 2024 has been "a stabilised year": "We are seeing a return to normality which for Poppies is always a steady growth due to

pushing forward with innovation and continuing to differentiate our product offering. Outside of this the UK market is flat. We foresee the increase will come from the continuation of what we are doing – the innovation and the push to produce the most sustainable product we possibly can."

Covid-19 times hit the company's market "very hard, but the recovery was fast, and the pain has faded away to a point that it now seems a decade ago."





PUTITIE FUTURE OF PACKAGING IN YOUR LINE OF SIGHT

VISION G3
WRAPPER

Our new wrapper features a reciprocating design with fast, small-pack production and change-overs.

Innovatively designed with shorter mechanical movements and a telescoping unwind, the new Vision G3 wrapper is revolutionizing the industry with faster speeds on small formats, while also being able to produce large packs. Our Infinity engineers re-imagined the G3 from the ground up, setting the global stage with a new standard in tissue packing production.

Every detail has been meticulously designed for increased production, accessibility, maintainability, and fast set-up. Take a virtual tour at visionG3.com.

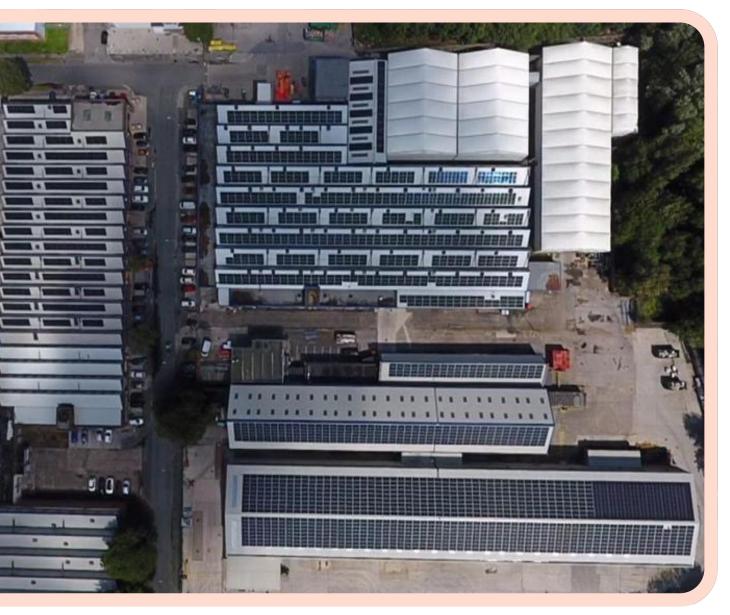


In terms of the energy crisis, in 2022/23 Poppies Europe invested in a 1.3-megawatt solar system which powers the majority of its manufacturing plant. There remains the potential to extend this to a 2.1 megawatt system using the remaining roof space at Poppies' 12 acre site. "This has helped offset the cost implications of the energy crisis along with meeting the company's ambitious environment targets."

The impact of inflation has produced an "unusual" response in the hospitality sector: "Surprisingly we have seen an increase in our premium tabletop offering and this is being driven by the consumer when dining out wanting to see and feel the value of what they are paying for. They might eat out less often due to price, but when they do the expectation is higher for the food and table setting."

Marques' overall assessment of the UK market? "We are convinced that M&A will intensify in the UK, boosted by European or further afield large tissue operators that want to take or increase their market share in the UK. I don't think the market is in overcapacity and that strategy of acquisition is more in line with a logic of margin preservation.

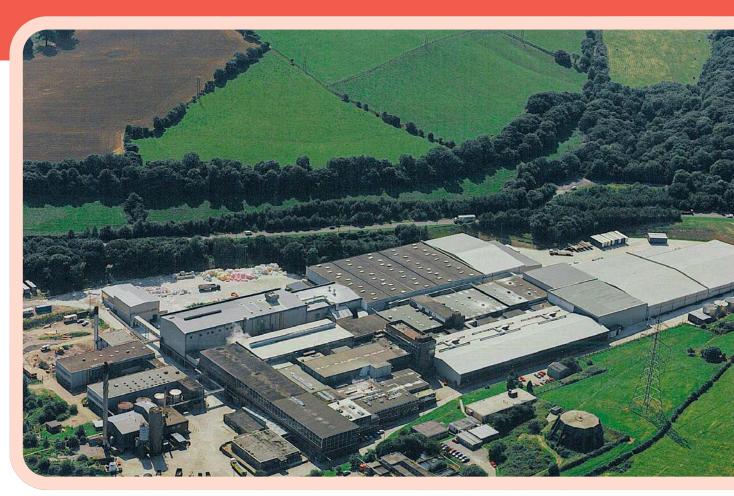
"The opportunities lie within innovation, not only a product basis but as a business. This can be developing a new product for the market along with a constant eye on ensuring we are manufacturing in the most sustainable and efficient way. The need for a steady investment in our production facilities whilst Poppies continues to be the market leader for tabletop products in the UK. By doing this we are ready to capture any opportunities that present along with being agile as a business to head off any challenges we may face."



Sustainability is a key focus: Poppies Europe has now finished the first stage of its solar project and is putting more focus on packaging reduction

WEPA OUTLINES ITS STRATEGY BEHIND ACQUISITION OF LEADING COMPANY IN THE UK'S GROWTH SECTORS

A hybrid market of changing responses to hygiene, hybrid products, sustainability, and price. Following the acquisition of Star Tissue UK, Tim Vormweg, Director Group Communications at WEPA, outlines the company's direction in the UK. Report by Helen Morris, Senior Editor.



WEPA Group's Bridgend plant: the company's largest UK-based plant produces 115,000tpy for its Consumer business unit.

n January 2024, Germany-headquartered WEPA Group increased its presence within the UK and across the European tissue market by acquiring Blackburn, Lancashire-based hygiene paper provider Star Tissue UK. The site is now part of the company's business unit "WEPA Professional" and operates under the name WEPA Professional UK, with a converting capacity of 27,000tpy producing high-quality tissue products. Customers, WEPA says, also benefit from an international production network of the WEPA Group in the UK and 12 other European locations.

Within the UK, the WEPA Group also has a mill in Bridgend, Wales, which produces for the company's Consumer business unit with a yearly production capacity of 115,000 tonnes. With an integrated facility, the site houses a paper machine, seven converting lines, and a stateof- the-art water treatment plant. Targets across the UK will be to deliver "superior products with minimum impact on the environment, whilst also ensuring superior softness and bulk." A range of pack formats and converting options, including the ability to produce different core sizes, are a focus. Lotioned bathroom tissue and printed kitchen towels are also manufactured, with a wide variety of options available from entry level to premium ranges.

With the economic and health conditions of the past few years, Tim Vormweg, Director Group Communications at WEPA, says the company's growth strategy will continue to be innovative: "WEPA is committed to the UK market and further developing its business in the tissue market. We will show this commitment by introducing innovations, such as our product range made from recycled cardboard. Furthermore, we offer more and more packages containing maxi rolls – this reduces transports and increases efficiency on the shelves."

The acquisition of Star Tissue UK "underlines our strategic commitment for further growth in the UK's professional hygiene market," he adds. "This is based on a strong product and brand portfolio tailored to the demands of the local market and a strong sustainability strategy."

Clearly, he says, the company is seeing that sustainability plays "an increasing role" - both in product specification evolution, but also in the entire value chain: "Sustainability is our strategic focus. This is supported by retailers and their focus on sustainability, as well as by consumer demands, and we want to further increase the awareness for

"For WEPA, the UK is a growth market that offers many opportunities for us, and this is why we actively invest within the market."



sustainable hygiene paper. We expect a growing number of hybrid products to enter the market – this is hygiene paper made from a mixture of fresh and recycled fibres. Even though in the Consumer's business the market share of 100% recycled products is still comparably low, we see still a growing demand in this category."

On the other hand, he says that in the company's Professional sector, the business is seeing "substantial demand" for recycled products: "We expect a growing number of beige products made from recycled cardboard in the future, given the sustainability advantages of unbleached, recycled material. With beige products customers and consumers can actively contribute to circular economy."

The product range made from recycled cardboard is "a high-quality, very soft and sustainable hygiene paper solution, since recycled fibres have an at least 70% better environmental footprint in contrast to wood-based fresh fibres*. "For V-fold handtowels, we increased the compression and thereby the palletisation efficiencies, which enables 50% more paper per pallet. This makes our logistics more efficient."

Reducing plastic is also on the company's agenda: "By increasing the number of sheets on our hygiene paper rolls, a package contains more paper which

^{*} WEPA explains that the ecological scarcity method is used to calculate the ecological footprint. This method considers a wide range of environmental impacts and aggregates them into a single indicator. The procedure for life cycle analysis is based on the ISO 14040 standard but goes beyond the standard with the final step of aggregation into a key figure. The result evaluates the pollutant emissions, resource consumption and biodiversity losses associated with land use to produce fibres (cradle-to-gate).

Tissue Istanbul 20-21 November 2024

Hilton Istanbul Bomonti Hotel & Conference Centre

Get Ready!

Where the Industry Meets Innovation.

Türkiye's tissue production has soared by 70% over the past decade, making Istanbul the perfect backdrop for the next edition of Tissue World on 20-21 November.



Registration opens soon! Join us at the premier event for tissue professionals and be at the forefront of the latest trends and technologies.









Register your interest now tissueworld.com/istanbul



The former Star Tissue UK's Blackburn, Lancashire-based plant: WEPA Group acquired the business in January 2024

in the end leads to less packaging material needed in total."

"When it comes to energy the focus is not only improving the efficiency and reducing consumption, but also on using less carbon intensive sources and reducing emissions."

Vormweg adds: "For WEPA, the UK is a growth market that offers many opportunities for us, and this is why we actively invest in the market."

Changing trends over the past few years have resulted in awareness of the "everyday product" that is hygiene paper "increasing substantially". "Following the outbreak of Covid-19, we saw that buying habits had changed," he says. "In the following years, we have also seen wars, the energy

crisis, inflation, all of which have led consumers to make more conscious buying decisions. Nowadays, there is a greater focus on private label products as well as on promotions and value offering (e.g. longer rolls, double rolls in the bathroom tissue segment)."

Within public washrooms, WEPA has experienced that more people now prefer drying their hands with paper towels. "This is also reflected by a greater interest in paper towels and dispensers of our Professional customers," he says.

"Generally, the UK market shows organic growth. In the bathroom tissue segment the market is still dominated by standard products. Consumers are looking for the best value for their money, thus longer roll and bigger pack sizes are gaining share."

LATEST ACQUISITION MEANS UK CONTRIBUTES AROUND 50% OF NAVIGATOR'S TOTAL TISSUE TURNOVER

Converter Accrol Group Holdings takeover is "a key pillar" in strategy of sustained expansion says Graham Cox, Chief Operating Officer, Navigator Tissue UK. Report by TWM Senior Editor Helen Morris.

n April 2024, Navigator Paper UK – the UK division of Portuguese pulp and paper company The Navigator Company – launched a public all-cash offer to acquire UK-based tissue paper converter Accrol Group Holdings, which converts and supplies toilet tissues, kitchen rolls, facial tissues, and wet wipes to UK-based discounters and grocery retailers. The purchase went through in May 2024, reinforcing Navigator's market positioning in the Western European tissue market. At the time, Navigator said it anticipated the move would result in a consolidated turnover of £500m, with the UK

Capacity boost: Navigator now has a total production capacity of 165,000 tons of tissue paper and 180,000 tonnes of tissue converting capacity per year

market contributing around 50% of Navigator's total tissue turnover.

Navigator diversified into the tissue market in 2015 and now produces tissue paper parent reels on a large industrial scale with direct integration of pulp into tissue production. It also has converting facilities at sites across Western Europe and the UK which serve the At-Home and AfH markets.

Navigator entered into tissue through the acquisition of Portugal-based AMS Star Paper in 2015. It then invested in a greenfield tissue paper production plant in the Aveiro district of Portugal in 2018. In 2023, it acquired the tissue consumer business of Spanish Gomà-Camps group and its Zaragoza industrial site.

It now has a total production capacity of 165,000 tons of tissue paper and 180,000 tonnes of tissue converting capacity per year, generating approximately €293m of annual revenue in 2023.

Accrol is "a key pillar" in Navigator's strategy of sustained expansion of its tissue business in the Western European market, and it will focus on building on Accrol's market position in the UK tissue private label market and supporting its growth across all its core product segments.

Speaking from his office in Blackburn, Lancashire, Graham Cox, Chief Operating Officer, Navigator Tissue UK, says the UK arm now has a revenue of circa £200m per annum, with a current annual tonnage of 100,000tpy, supplying quality leading tissue products and wipes to the majority of the UK leading retails and wholesalers, across own label and branded products. "We service our customers from our three UK tissue converting sites and our two UK-based wet wipes manufacturing sites, the

most recent of which was via the acquisition of Severn Delta in Bridgewater. It now means we can provide a true one stop shop for all our customers, across toilet tissue, kitchen tissue, facial tissue, MTT, baby wipes, H&B wipes, pet wipes and household wipes – something that sets us apart from all of our competition," he says.

Recent investments – outside of the acquisition of Severn Delta – include the installation of a Pocket Pack line in Blackburn, making the company one of only two UK-based producers of Pocket Pack tissue: "We are also preparing for a new state-of-the-art wet wipes production line, due to be operational in the first quarter of 2025. This will service our customer base with a first to market technology specifically designed for 100% cellulose and biodegradable products."

Alongside this, Cox says the company will continue to invest in its branded portfolio, having recently launched Flash Kitchen Towel which is produced and sold under licence from Procter & Gamble: "It is a market-leading product which is stronger than the current brand leader and which continues to build positive momentum, driving value back into the Kitchen Towel category," he adds.

Following the acquisition of Accrol, the company's growth strategy "continues to develop in an everchanging and dynamic UK market". Cox says: "This means keeping to the main fundamentals of working collaboratively with our key customers to provide high-quality, innovative products that deliver great value for both retailer and consumers. Our wide-ranging capabilities allow us to produce products to meet this objective, whether that is entry level products or brands delivering market

"The UK tissue market is getting more demanding in terms of quality while also requiring even more competitive prices" leading quality, such as Flash, all with a keen focus on availability for the consumer."

Within the company's branded portfolio, he says the business will continue to review key trends and ensure that its brands Elegance, Magnum, Softy & Flash "deliver against these requirements, whilst delivering exceptional quality" and are complemented with the company's wipes brands of Little Heros, Cherris, etc.

"Finally, now as part of the Group Navigator, we have enlarged further our offer, capabilities and balance sheet. We were already able to provide a full offer in wet wipes and almost a full offer in tissue, that we can now complement with hand towels or napkins – we became one of the top three most complete one-stop shops in tissue and wipes in the UK."

He says the UK market remains "very vibrant" within tissue and wipes. Against a backdrop of increasing raw material prices, which Cox says will ultimately feed through into retail prices, the company is seeing "significant opportunity" for consumers to continue the trend of moving from brands into high-quality own label products further driving growth in the private label share in the direction of that being achieved in the wider European market. "In summary, the UK tissue market is getting more demanding in terms of quality while also requiring even more competitive prices – this is fantastic news for Navigator Tissue UK, as we are especially well positioned for this environment."

Since Covid-19, buying habits he says have reestablished themselves, post the heights of the panic buying. "In more recent times, these habits have been more impacted, such as by the cost-of-living crisis where shoppers are looking to maximise their budgets without compromising on quality. We are seeing shoppers either move out of the more established brands into either challenger brands, such as Elegance & Magnum, or into own label, where equally a level of movement between tiers has also been witnessed. Given the lower levels of brand loyalty from the younger generation we expect to see a continued growth in private label moving forwards."

Navigator Tissue UK also aspires to move all of its operations to run with 100% renewable energy with further investments into solar panels due in the near future. "We continue to champion the environment and sustainability," he says. "Each site also has clear energy targets set, to deliver reductions in our CO2 emissions and further reduced our environmental impact." In terms of our plastic usage, he adds that everything the company produces uses plastic containing at least 30% Post Consumer Recycled (PCR), something that was achieved within three months of the UK legislation changes: "We will have

everything moved to at least 50% PCR in the coming months, with over 50% of our products already there. Our focus on plastic usage doesn't stop there with the introduction of new banding technology on several of our lines to further reduce plastic requirements by up to 60%."

In reaction to the energy crisis in the UK market, he says energy prices in the UK have fallen from the highs of a few years ago, and the continued transition to sustainable energy should ensure a more stable base that is less reliant on import of gas and fossil fuels for the future.

Recent levels of pulp inflation over the course of the last 12 months have also "clearly impacted" producers and convertors and "necessitated the need to raise prices to our customers. "This is not something that is unique to Navigator Tissue UK, but we continue to work in partnership with our valued clients to manage and recover these costs whilst still delivering on the quality and products our customers and consumers expect every day."

Navigator Tissue UK continues to see positive sales momentum within both the tissue and wipes market, which Cox says is supported by a broad customer base which allows it to "operate in all categories and tiers, bringing sustainable, quality products, produced in state-of-the-art facilities, supported by a loyal and dedicated workforce." This, he adds, enables the company to ensure "consistent positive momentum" and focus on a "dual track strategy across both own label and brands."

"We continue to integrate into the wider Navigator Company, where we can benefit from the full integration into a leading forest, pulp, tissue, packaging, and biomass energy business that is recognised for its sustainability and focus on the environment. Opportunities will bring these benefits, skills and expertise into our UK business and drive further value and creativity for our customer and consumers. Whilst the UK retail scene remains a very competitive and dynamic market, it also has great potential to drive further growth away from brands as we leverage the full benefits of the wider group whilst remaining agile and responsive to the changing needs of the consumer."



AS SUZANO'S GIANT \$4.3BN CERRADO PROJECT COMES ONLINE IN BRAZIL, WHAT EFFECT WILL IT HAVE ON WORLD PULP PRICES AND THE T&T INDUSTRY?

The global tissue industry has been beset in recent years by pulp market cost acceleration and fluctuation. With increasing signs that a more stable market has returned, TWM spoke to Leonardo Grimaldi, Executive Vice President of Pulp Commercial and Logistics, and Aires Galhardo, Executive Vice President of Pulp Operations, Engineering and Energy. Report by TWM Senior Editor Helen Morris.



n August, Suzano started production at its immense \$4.3bn Cerrado Project in Ribas do Rio Pardo, Mato Grosso do Sul state in midwestern Brazil - the world's largest single pulp production line.

Its annual production capacity is 2.55m tonnes of eucalyptus pulp, increasing Suzano's total annual production capacity by more than 20% to 13.5m tonnes. That amount, the company says, equates to approximately one third of the global hardwood pulp market, a figure which stood at 40.8m tonnes in 2023.

As eucalyptus sourced pulp continues to play an increasing role in the global market, particularly the bleached chemical pulp market, Suzano can point with confidence to a continuing trend as large regions across the world experience a rise in demand for tissue products, most significantly developing markets across Latin America and Asian.

Confident of Suzano's ROI, Leonardo Grimaldi also makes a prediction which will be welcomed by the industry across the board: "This boost in pulp production will allow Suzano to provide greater volumes of market pulp to the toilet paper and kitchen towel markets.

"At Suzano, we recognise the growing demand for all types of fibre. To cater to this increasing demand and build on our position as a global supplier of pulp to non-integrated tissue, paper, and packaging producers, we believe that investment in our operations is essential. Our investment in the Cerrado Project, the world's largest single pulp production line, represents a key part of our growth strategy and gives us an important edge in what are highly competitive markets.

"Customers from within these markets are also going to be the beneficiaries of the mill's world-class logistics, which will ensure supply is delivered both quickly and reliably."



Suzano's pulp mill in Ribas do Rio Pardo: the plant was started up by Andritz on 8 August 2024

The Ribas do Rio Pardo plant benefits from considerable geographical advantages: a tropical climate across large areas of the territory are occupied by pastures and forestry activities, with eucalyptus farms predominating.

"The structural distance from forest-to-mill is only 65 kilometres on average, reducing logging transportation times," Grimaldi says. "We have invested in two shipping terminals at the Port of Santos and signed a partnership with a major shippard which has already built 19 new vessels to service the increased output from the mill. This focus on creating and maintaining a highly efficient supply chain will further serve to keep costs down and ensure our pulp is the most cost-competitive in the market."

The focus is firmly on the development of innovative products from renewable raw materials: "The new mill employs cutting edge technology which allows us to produce eucalyptus hardwood pulp with properties which are closer to that of other pulp grades. This will enable our customers to accelerate their fibre substitution strategies and ultimately improve their bottom line – when tissue producers increase the percentage of hardwood pulp in their furnish mix,

they see improved profitability, as hardwood fibre is a more cost-competitive option to softwood.

"We also plan to explore the production of specific differentiated pulp grades at the new mill, which will

The new mill employs
cutting edge technology
which allows us to produce
eucalyptus hardwood pulp
with properties which are
closer to that of other
pulp grades.





2.55 million tons per year: when fully operational, the site will be the world's largest single-line eucalyptus pulp mill

Our new mill in Ribas do
Rio Pardo signifies a new
milestone in industrial and
eco-efficiency. The mill will
utilise biomass-derived gas as
the primary fuel source



provide our customers with enhanced fibres capable of boosting the strength of their tissue-based products. This includes our "Eucastrong" product, which has been specially designed to deliver high tensile and superior physical properties compared to regular fibres."

Aires Galhardo describes the transition to a low-carbon economy throughout Suzano's operations as being driven by a relentless focus on maximising energy efficiency and renewable energy generation. That transition accounted for 88% of Suzano's total energy consumption in 2023.

He explains the technology behind the transition: "We have invested significantly in technologies and processes which allow us to generate energy from biomass and "Black Liquor", a by-product of the pulp production process. As a result, many of our plants today are self-sustaining, producing enough energy to meet their own demand, without the need for an external power supply.

"However, our new mill in Ribas do Rio Pardo signifies a new milestone in industrial and ecoefficiency. Coupled with reduced consumption of raw materials, chemicals and water, the mill will utilise biomass-derived gas as the primary fuel source for its lime kilns, instead of traditional fossil fuels – the first in Suzano's operations to do so – allowing for a significant reduction in GHG emissions."

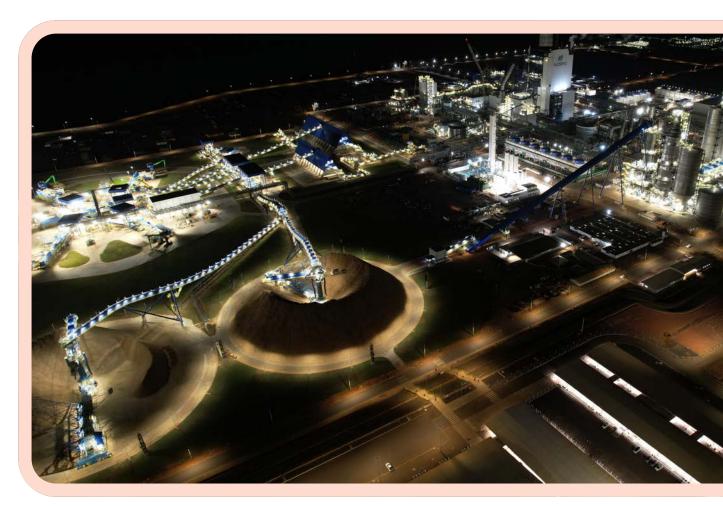
The new mill has capacity to generate, in surplus, approximately 180 MW of green energy, which, Suzano says, is enough to power a city of more than two million inhabitants for a month, and will be among the most modern and sustainable in the world. This energy will be distributed both via the Brazilian grid and to chemical suppliers.

Suzano Biopulp's portfolio continues to evolve in several ways: "Our "Eucanatural" and "Eucapack" products – made from semi-bleached and unbleached eucalyptus fibres respectively – address the growing demand for renewable packaging, offering customers a more sustainable option for their paper and packaging applications, while maintaining suitable structural properties, Galhardo adds.

"We are also exploring alternative solutions for our planted forests to address the performance drivers required by the dynamic pulp market, including the development of new technologies for both wood cooking and pulp bleaching and modification, to enhance efficiency and reduce our environmental footprint."

Elsewhere, investments have been made in developing advanced hard and soft sensors and control systems, to be implemented at critical stages of the pulp production process: "These technologies will enable us to measure wood quality, monitor accurately the key performance indicators during the cooking and delignification stages, and conduct continuous digital analysis to best classify the final product. The higher volume of data provided by such tools and technologies will enhance not only the ecoefficiency of Suzano's production processes, but also ensure greater quality, stability, and consistency in our products, for the benefit of the paper producer.

"Suzano is also advancing its capabilities and expertise in eucalyptus lifecycle analysis. This will help us to refine and enhance the planting, growing, and harvesting stages of the eucalyptus farming process, as well as understand more clearly the sustainability impacts of key processes – not just in Suzano's operations, but across the entire tissue value chain. These insights will allow us to work more closely with our customers, to co-create superior pulp-based paper and packaging solutions."



Investment in technology: Suzano has prioritised processes that allow it to generate energy from biomass and "Black Liquor"

INVESTMENTS IN FACILITIES AND BRANDS DRIVE LONG-TERM GROWTH

Kruger Products speaks to TWM about its last year in business, building broad top-line growth, and developing organisational capability and culture to drive future growth.

hen TWM last interviewed Dino Bianco, Chief Executive Officer of Kruger Products, the company had embarked on a series of strategic investments to fuel growth across Canada and the US. Since the North American special report in August 2023, now in August 2024 Bianco says to TWM that these investments permitted the company to deliver "strong volume and operational efficiency." The investments and innovations in its product lines have enabled Kruger Products, the leading tissue manufacturer in Canada, to position itself as a premier asset in North America, driving broad top-line growth across its portfolio.

"The last year has been characterised by strong agility and resilience despite an uncertain economic environment," says Bianco. "The growth has been propelled largely by our new Sherbrooke plant that features Canada's most modern TAD tissue machine and our ongoing investment in a diverse catalogue of Canadian-made brands, motivated by our mission to make everyday life more comfortable for our customers, consumers, and communities."

In February 2024, the facial tissue converting line that is part of the Sherbrooke Expansion Project started up successfully. The LDC paper machine that will be housed in the same plant as the new facial tissue converting line is scheduled to start up in the fourth quarter. With this new paper machine, Bianco says Kruger Products will be more dependent on internal paper and able to reinforce its position as a major hub for the North American market.

In March 2024, the company also announced a major increase in its production of Scotties facial tissues at its Richelieu Plant in Gatineau, Québec, with an investment of \$14.5m. The new facial tissue converting lines in Gatineau and Sherbrooke will increase its annual facial tissue capacity by 2.2m cases, and it bolsters the overall capacity of the 10

plants in North America as a significant supplier of facial tissue products to the market.

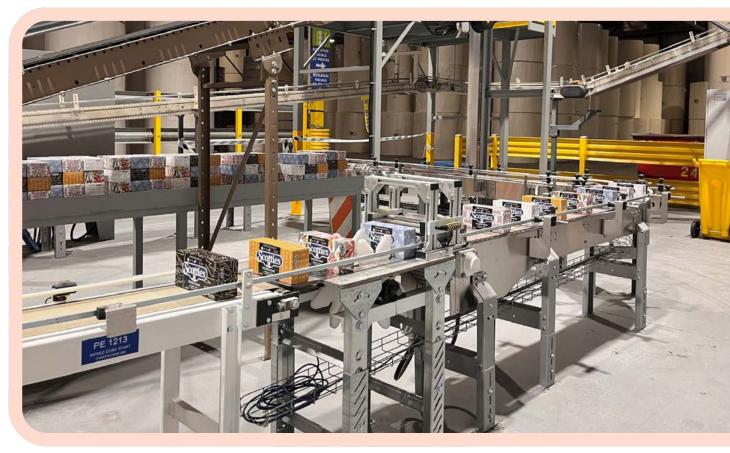
In August 2023, the company launched the Scotties "Here to Stay" campaign and, this summer, the "call us by our name" campaign, a tongue-in-cheek campaign that trains Canadians to use the brand name, Scotties, when they are looking for a tissue.

Reinforcing a commitment to the product, Bianco says the Scotties line features "its best products yet" with Scotties Ultra Soft and Scotties Ultra Soft "with Lotion," which is enhanced with Aloe and Vitamin E. Produced at the new Sherbrooke plant, the new products are made with premium 3-ply cushiony layers that are hypoallergenic and dermatologist-tested.

With a view to creating a circular economy aligning with the company's sustainability goals, Kruger Products also plans to roll out further investment that will collect and repurpose tissue production residues. The residues will be re-pulped for the manufacture of other projects, an initiative that is expected to be completed in June 2025. Bianco adds that the business has remained focused on its sustainability goals by responding to consumer needs with the Bonterra 9Roll Bathroom Tissue. The latest Bonterra facial tissue offering is 3-ply, FSC-certified, and packaged in plastic-free, 100% recycled – and recyclable – cartons.

There have also been substantial changes in the North American tissue market over the last year. The tissue market has faced "increasing headwinds," Bianco says, including the rising cost of pulp: "From a margin management standpoint, we recently announced a price increase in our Consumer segment to mitigate escalating pulp prices. This pricing adjustment, along with other productivity initiatives will ensure that we continue to drive profitable growth," he adds.

For the immediate future, the company has major investments in marketing on the horizon with fresh brand campaigns going to market later this year.



Major facial tissue capacity increase: Kruger Products' new converting line at its Richelieu plant



Reinforcing a commitment to the product: Dino Bianco, Kruger Products CEO, says the Scotties line features the company's "best products yet"



ADVERTISER'S INDEX

Baosuo www.baosuo.com **IBC IFC** Convermat www.convermat.com Infinity Machine & Engineering www.infinitymec.com 23 Tissue World Istanbul 27 www.tissueworld.com Tissue World Istanbul www.tissueworld.com OBC Toscotec 2 www.toscotec.com Trebor www.trebor.com 15

SUBSCRIPTION



Tissue World Magazine is free to qualified members of the tissue industry. Please visit the following link to subscribe to the printed magazines: www.tissueworldmagazine.com/printsubscription/



Sign up to the bi-monthly Tissue World Newsletter and six annual Digital Magazines here:

www.tissueworldmagazine.com/newsletter/







YD-PL450SE Non-Stop Rewinding Line



BaoSuo Enterprise Provide You The Turnkey Solution For Tissue Production



Tissue Machine



Converting Machine



Packing Machine





Tissue Istanbul World 20-21 November 2024

Hilton Istanbul Bomonti Hotel & Conference Centre

Connect with your future customers

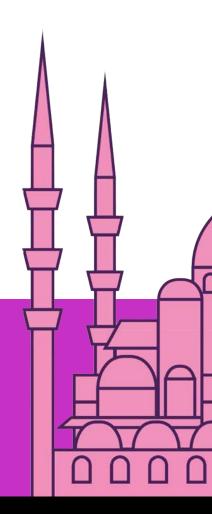


Unprecedented Growth. Unmissable Opportunity.



Showcase your innovations, discover the latest advancements, and gain insights from industry leaders. Find the perfect partners to propel your business forward.

Sponsorship Opportunities	
SOLD! -Conference Sponsorship-	SOLD! Lanyard
SOLD! Registration & Dadge Spensor	Floorplan Sponsor
General Catering Area Sponsor	Website Exhibitor List Sponsor
Day Zero Party Sponsor	Floor Tiles





Scan to DownloadSales Brochure